Tradeoff between Entrepreneurship and Fertility: Evidence from China's Nationwide Two-Child Policy*

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ABSTRACT

We examine the tradeoff between fertility and entrepreneurship using China's two-child policy. Households exposed to the reform were more likely to have additional children but less likely to engage in entrepreneurial activity. This tradeoff is driven by heightened effective risk aversion: childbirth raises subsistence needs and amplifies sensitivity to income volatility, discouraging risky occupational choices. The effect is stronger among households with only daughters, higher consumption requirements, tighter financial constraints, greater income volatility, and weaker intra-household risk sharing. This tradeoff cannot be fully explained by alternative explanations including childcare time costs, gender discrimination in labor markets, confounding macroeconomic factors, and occupational preferences. Our findings highlight how household characteristics factor in the effectiveness of pro-natalist policies.

Keywords: Entrepreneurship, Fertility, Family Planning Policy, Household Economics, Risk Preference, Intra-household Risk Sharing

JEL Classification: I18, M40, G30, D80, O32

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1 Introduction

Governments around the world increasingly view fertility and entrepreneurship as critical engines of long-run growth. Fertility policy has gained urgency as aging and declining populations reshape demographic structures and raise concerns for sustained economic expansion.[1] On the other hand, recognizing entrepreneurs' central role in driving productivity, job creation, and broader economic transformation, governments devote substantial policy effort to fostering entrepreneurial activity. Yet, despite their importance, these two household decisions—whether to have children and whether to start a business—are typically studied in isolation. In this paper, we examine whether and how fertility and entrepreneurship are linked.

While the entrepreneurship literature has largely focused on individual traits and risk considerations, households make decisions in a context shaped by family planning and intra-family coordination.[2] For instance, fertility decisions can shape the household's collective capacity to bear risk, thereby influencing labor supply and occupational choices (Ortigueira and Siassi, 2013), and heighten the perceived cost of failure due to altered financial obligations, especially in cultures where childbirth is highly valued. These channels suggest that fertility shocks may systematically influence entrepreneurial choice, with broader implications for economic growth and innovation (Schumpeter, 2008; King and Levine, 1993; Decker et al., 2014; Herranz et al., 2015). Yet, the role of household fertility preferences in

[1] Wall Street Journal: Suddenly There Aren't Enough Babies. The Whole World is Alarmed. https://www.wsj.com/world/birthrates-global-decline-cause-ddaf8be2
Financial Times: The troubling decline in the global fertility rate. https://www.ft.com/content/008a1341-1882-4b98-83d4-0d7dc08a4134

[2] A vast literature has examined what drives individuals to become entrepreneurs. For example, studies have identified several key factors affecting entrepreneurial decisions, such as financial constraints, risk tolerance, career risk, entry regulation, tax policy, insurance on self-employment, and collateral (Evans and Jovanovic, 1989; Gentry and Hubbard, 2000; Hurst and Lusardi, 2004; Klapper et al., 2006; Cagetti and De Nardi, 2006; Aghion et al., 2007; Manso, 2011; Denes et al., 2023; Manuel et al., 2015). Many scholars argue that the risks associated with entrepreneurship are a primary reason individuals are deterred from starting their own business (Evans and Jovanovic, 1989; Manso, 2011; Gottlieb et al., 2022).

shaping entrepreneurship remains surprisingly underexplored, underscoring a natural motivation to examine this link more closely.

However, establishing a causal effect of fertility on entrepreneurship is not straightforward. First, both fertility and entrepreneurship are endogenously and jointly determined: families that have additional children may shy away from entrepreneurial risk, and conversely, those engaged in entrepreneurial activity may delay childbearing. Second, identifying this relationship requires observing intertemporal, household-level demographic and occupational changes over a substantial portion of the life cycle.

To address these challenges, we adopt two complementary approaches. First, we develop a household life-cycle model in which fertility and occupational choices are jointly determined, subject to policy constraints. Households derive utility from consumption above a subsistence threshold and from the number of children, and they choose between wage employment and entrepreneurship, with the latter involving greater income volatility. Although the household's inherent risk aversion is constant, sensitivity to consumption fluctuations intensifies as consumption approaches the subsistence threshold following childbirth. Consequently, the lift of the fertility cap increases childbirth in families with greater utility from children; however, the subsistence threshold also increases with childbirth and reduces entrepreneurship due to heightened effective risk aversion. Additional implications include an amplified tradeoff between fertility and entrepreneurship among (1) financially constrained households, (2) households living on riskier sectors or with limited intra-household risk sharing, and (3) households with a stronger preference for children.

Second, we provide empirical evidence by exploiting China's nationwide two-child policy reform in 2016, which replaced the longstanding one-child policy and granted all households the legal right to have a second child. This reform offers an ideal setting to examine the effect of fertility preference on entrepreneurship, generating a sharp and plausibly exogenous increase in childbirth. Unlike earlier local or conditional relaxations—which affected only a

small subset of families and faced implementation challenges—the 2016 policy sent a clear signal to the public and all levels of government, substantially raising both the birth rate and the number of second children born.[3] The variation in the exposure across households, based on the childbearing age of married women, together with the relaxation of fertility constraints, creates a quasi-experimental environment that allows us to isolate the causal impact of fertility on entrepreneurship.

We use biennial surveys from the China Family Panel Studies (CFPS), which allow us to track households over a decade and observe demographic changes—such as household composition, number of children, marital status, and the age and gender of each family member—alongside socioeconomic outcomes, including occupational choices, education, employment status, and industry of employment, in the years surrounding the policy implementation. Building on this data, we adopt a difference-in-differences strategy, comparing families with one married woman aged 20–45 (referred to as the treated group thereafter) to other families (the control group).

We first consider all households, including no-child families, to assess the overall policy effect.[4] We find that treated families with stronger biological capacity to bear a child experience a 1.1 percentage point lower likelihood of having a family member engaged in entrepreneurship—that is, a person who reports being self-employed and generating substantial business income—relative to other families.[5] Given that the unconditional mean likelihood of having an entrepreneurial family member is 9.3 percent, this policy-driven change repre-

[3]CNN: China's new two-child policy sparks increase in births. `https://edition.cnn.com/2017/01/23/world/china-two-child`.
NewScientist: China's two-child policy linked to 5 million extra babies in 18 months.
`https://www.newscientist.com/article/2214179-chinas-two-child-policy-linked-to-5-million-extra-babies-in-18-months/`

[4]Even for no-child families, the policy may influence their childbirth plans by increasing the allowable quota for children in the future.

[5]We acknowledge that the treated and control groups differ in inherent risk preferences or other family characteristics, such as wealth and household expenditure. To mitigate this concern, we select samples from both groups with similar family characteristics using propensity score matching (see Section 4.4) and find consistent results.

sents a statistically and economically meaningful reduction in entrepreneurship. In addition, there are no significant differences in entrepreneurship between the groups in the pre-policy period, supporting the validity of the parallel trends assumption.

Our baseline results are robust to different control groups, family compositions, alternative definitions of entrepreneurship, whether rural areas are included, bad controls, industry heterogeneity, and the gender of entrepreneurs.

To ensure that fertility decisions are the driving factor behind entrepreneurial outcomes in our setting, we first show that the treated group experienced significantly more births than the control group following the two-child policy, which is the intended consequence of the reform. Specifically, the treated group had 0.028 more births per household after the policy change—a substantial increase, given that the unconditional mean number of births per household in each survey year is 0.066.[6] More importantly, we find no significant differences in childbearing between the two groups prior to the policy change. These results confirm that the two-child policy constitutes an exogenous shock affecting entrepreneurial activity through changes in birth choices.

We further examine heterogeneous treatment effects by separating families into those with and without children prior to the policy change. We hypothesize that families previously subject to binding fertility constraints experienced a greater relaxation in birth choices following the reform, which in turn should have a larger impact on labor and entrepreneurial decisions. Consistent with this hypothesis, the former group exhibits a 2.1 percentage point lower likelihood of entrepreneurship, which is statistically significant, whereas the latter group experiences a 0.7 percentage point reduction, without statistical significance. These results indicate that the policy effect is primarily driven by households previously facing legal

[6]This estimate holds even after controlling for other determinants of birth documented in the literature, including family wealth (Lovenheim and Mumford, 2013), mortgage (Hacamo, 2021; Cumming and Dettling, 2024), and uninsurable earnings risk (Sommer, 2016; Choi, 2017; Rocha and Fuster, 2006; Doepke et al., 2023).

fertility constraints, confirming that the observed pattern is specific to childrearing decisions.

We next turn to the underlying mechanism for fertility preferences to influence household entrepreneurial decisions. Our theoretical framework emphasizes household-level risk as the central channel underlying our findings. Childbirth, as a major lifecycle event, increases a household's minimum required consumption, thereby narrowing the margin between actual consumption and the subsistence threshold. As this margin tightens, even modest income fluctuations can produce disproportionately large utility losses, making volatile entrepreneurial income less attractive. This shift reflects a rise in effective risk aversion driven by tighter consumption constraints rather than a change in intrinsic preferences.

To evaluate this mechanism, we conduct multiple empirical tests. First, we find that the policy effect is stronger for families with only daughters relative to those with at least one son, reflecting cultural son-preference norms and showing that the two-child policy interacted with social expectations to influence entrepreneurial behavior. Second, using revealed risk preferences in surveys, we find that households with a newborn exhibit reduced risk tolerance, indicating that childbirth directly shifts risk attitudes and, consequently, entrepreneurial decisions. Third, households operating near the subsistence level reduce entrepreneurial activity following the reform, with the effect amplified by financial constraints, consistent with heightened effective risk aversion predicted by our model. Fourth, the negative policy impact on entrepreneurship is stronger among households facing greater income volatility, such as heads employed in sectors of high uncertainty, confirming that career-related income risk interacts with fertility shocks. Fifth, limited intra-household income sharing exacerbates the reduction in entrepreneurial activity after the reform, highlighting the role of household income structure in shaping responses to fertility shocks. Finally, by comparing families of different sizes, we show that time constraints related to childcare do not drive the observed decline in entrepreneurship, ruling out an alternative explanation about *time constraints* for our findings.

We also discuss a series of alternative explanations, including childcare time costs, labor market discrimination against mothers, macroeconomic factors coinciding with the birth policy change in 2016, and occupational preferences for the public sector. In our tests for the time-cost hypothesis, we find no differential effect across households of different family sizes; in addition, the decline in entrepreneurship is concentrated in high-failure-rate industries, which is more consistent with risk aversion than childcare burdens. For the discrimination channel, we show that the policy effect remains in households with wives being self-employed or outside the labor force, ruling out maternal job loss or penalties as the main driver. Our control of industry-year and province-year fixed effects, together with the policy effect only existing in high-failure-rate industries, mitigates the concern about confounding macroeconomic factors. For the increased preferences for jobs in public sectors due to intensified job competition, we show consistent results when we exclude households with employment in the public sector. Taken together, our empirical evidence collectively points to increased effective risk aversion as the main mechanism underlying the tradeoff pattern.

Overall, our empirical analysis aligns with the predictions of our model, showing that fertility shocks reduce the likelihood of entrepreneurial entry and increase the likelihood of entrepreneurial exit, with the effect concentrated among households with son preferences or exposed to higher income risk or childcare costs. These findings illustrate how demographic policies aimed at fertility can unintentionally shape the entrepreneurial landscape, linking two domains that are central to long-run economic growth.

Our paper mainly contributes to the literature on household finance and entrepreneurship by showing how childbirth—a major demographic characteristic—alters collective risk preferences and occupational choice.[7] Prior studies emphasize risk as central to entrepreneurial

[7]Prior work highlights finance, regulation, and human capital as key drivers of entrepreneurship (Cohen and Murray, 2019; Yu and Fleming, 2022; Black and Strahan, 2002; Kerr and Nanda, 2009; Appel and Simintzi, 2019; Jeffers, 2014; Colombo and Piva, 2020; Merida and Rocha, 2021; Lazear, 2004, 2005)

entry (Evans and Jovanovic, 1989; Manso, 2011; Gottlieb et al., 2022), though mostly at the individual level. We show that childbirth raises household subsistence needs and sensitivity to income volatility, increasing effective risk aversion and lowering entrepreneurial activity. This extends evidence that demographic events shape risk-taking (Liu et al., 2023; Roussanov and Savor, 2014; da Fonseca and Berubé, 2023; Guo et al., 2018), highlighting household capacity to bear risk as an overlooked determinant of entrepreneurship.

Our paper also speaks to entrepreneurship in emerging markets, where demographic transitions, financial frictions, and institutional constraints interact. China is a particularly relevant setting, with high self-employment rates, rapid structural change, and sharp demographic shifts. More broadly, our findings enrich the understanding of China's entrepreneurial ecosystem, which is shaped not only by economic and industrial policies, but also by shifting family structures and demographic policies.[8] This perspective also offers insights for other emerging economies grappling with aging population and experimenting with pro-natalist reforms.[9]

Finally, we also contributes to the literature on fertility and family planning policies by shifting attention from restrictive to pro-natalist reforms. Prior work on China's one-child policy documents wide-ranging consequences—from gender imbalances that affected entrepreneurship and marriage markets (Wei and Zhang, 2011; Wei, 2015), to changes in education, labor supply, savings, and human capital (Huang et al., 2021b, 2023; İmrohoroğlu and Zhao, 2020; Choukhmane et al., 2023; Rosenzweig and Zhang, 2009).[10] In contrast,

[8]Other key factors shaping entrepreneurship in China include: second-tier stock exchanges (Bernstein et al. (2020)); housing markets (Oh et al. (2021); Li and Wu (2014)); educational attainment (Huang et al. (2021a); Bai et al. (2024)); parental background and government intervention (Jia et al. (2021)); anti-corruption campaigns (Kong and Qin (2021)); fertility policies (Shu et al. (2025); and childhood hardship (Yi et al. (2022)).

[9]For instance, Bernstein et al. (2022) show that young individuals create firms in response to local opportunities arising from global commodity price changes. Our paper contributes to this discussion by highlighting that young adults are both drivers of entrepreneurship and subject to demographic policies.

[10]Contraceptive access in the United States increased women's labor supply, delayed marriage, expanded professional training, and narrowed wage gaps (Bailey, 2006; Goldin and Katz, 2002; Bailey et al., 2012). More broadly, state-level fertility restrictions are shown to influence entrepreneurship (Zandberg, 2021).

evidence on the economic effects of policies that encourage fertility remains limited. Our paper fills this gap by showing how China's two-child policy—a large-scale pro-natalist reform—affects household economic activities.

The structure of the paper is as follows. In Section 2, we provide detailed information about China's two-policy. In Section 3, we develop a theoretical model to derive testable implications and clarify the underlying mechanisms. In Section 4, we introduce longitudinal survey data of households in China, explain our identification strategy, and present empirical tests for identification. Section 5 includes mechanism tests, and Section 6 discusses a variety of alternative explanations. We conclude in Section 7.

2 Background Information

In China, the family is considered the core unit of society, consistent with Confucian philosophy, which emphasizes the duty of each family member (Ma, 2006). In particular, children are expected to carry out filial piety to their parents so that the family functions in harmony (Li, 2014). In that sense, the idea that having more children brings prosperity to the family is deeply enbedded in Chinese culture. For instance, Gao and Qu (2019) and Xu and Liu (2021) find that elderly Chinese parents' life satisfaction increases with the number of children. In this regard, giving birth has been a valuable tradition in Chinese society.

Despite such culture, the Chinese Communist Party declared nationwide restriction on couples' bearing multiple children in 1979 as an effort to cope with the shortage of resources due to famine. The consequences of violating the one-child policy include monetary fines, professional sanctions such as loss of employment, and sometimes administrative sanctions such as forced sterilizations or abortions.

While the Chinese government started to relax the one-child policy in the 2000s, most of these new policies were ineffective. In 2002, the central government allowed the one-child policy to be relaxed by local governments for "double-single" families with both the husband

and wife from one-child families. This policy to allow "double-single" families to raise two children was gradually adopted by all provinces/cities in 2002-2011. However, the initiative was largely ineffective, as double-single families were uncommon and had limited incentives to have a second child. For example, fewer than 10% of such families in Shanghai applied to have their second child, and half of those indeed gave birth to their second child.[11] In 2013, the central government further relaxed the one-child policy, allowing local governments to permit 'one-single' families—those in which either the husband or wife is from a one-child family—to have a second child. However, the policy was not effective: only 5% of such families in Shanghai were willing to have a second child.[12]

Finally, the central government introduced a *nationwide* two-child policy in October 2015: each family was permitted to bear two children regardless of their residential province or ethnicity, and this two-child policy came into effect on January 1, 2016. This policy appears to be have been effective in the short run: government statistics suggest much more newborns in 2016 and 2017; more importantly, more than half of these newborns were second children.[13] We focus on the impact of the two-child policy in effect in 2016 to examine how it changed families' incentive to have another child and entrepreneurship for the following two reasons: first, as the statistics suggested, the two-child policy has a universal effect on newborns; and second, unlike prior policies that may be complicated by the conflict of "Hukou" and residence (i.e., the registered location and actual location), the two-child policy is nationwide and sends a clear signal to all levels of governments.

In the spirit of analyzing consequences of this regulatory change, the recent literature has examined how China's two-child policy has affected individuals' economic and financial

[11] https://www.chinatimes.com/newspapers/20151229000899-260301?chdtv and http://cpc.people.com.cn/n/2014/0226/c83084-24466140.html

[12] http://politics.people.com.cn/BIG5/n/2015/0213/c1001-26560112.html and https://www.bbc.com/zhongwen/trad/focus$_{o}$n$_{c}$hina/2014/12/141222$_{c}$r$_{s}$inglechildpolicy

[13] https://www.stats.gov.cn/sj/sjjd/202302/t20230202$_{1}$895981.html and https://www.bbc.com/zhongwen/trad/chinese-news-57361169

decision-making.[14] For instance, Baker et al. (2022) show that the policy increased household savings due to anticipated child-rearing costs, while Choi et al. (2024) find that female university students reduced borrowing and human-capital investment in response to higher expected childbearing and labor-market penalties. However, how entrepreneurial choices have been shaped by the policy change remains unknown and calls for investigation.

3 Model

We develop a model to capture how households make endogenous fertility and occupational choices under a fertility cap. Specifically, we consider an infinite-horizon, discrete-time model in which a representative household chooses consumption c_t, occupational status $i_t \in \{\text{wage earner}, \text{entrepreneur}\}$, and whether to have an additional child $f_t \in \{0, 1\}$ in each period t. Our framework builds on foundational work in occupational choice and household risk (Evans and Jovanovic, 1989; Kihlstrom and Laffont, 1979; Wang et al., 1994), habit formation and minimum consumption requirements (Campbell and Cochrane, 1999), structural household decision-making (Attanasio et al., 2008; Ortigueira and Siassi, 2013), and children as normal goods (Barro and Becker, 1989; Black et al., 2013).[15]

[14] A related literature leverages twin births under the one-child policy as a source of exogenous fertility variation (e.g., (Rosenzweig and Zhang, 2009); (Guo et al., 2018)). Twins are particularly useful in that setting because they enabled some families to bypass strict fertility constraints, thereby creating a natural experiment for studying the effects of fertility on household dynamics. However, twin-based identification has important limitations: twin births are rare, yielding relatively small treatment samples even in large surveys (globally, natural twinning rates are only about 1–2% of live births), and they are not entirely random, as the likelihood of twinning correlates with maternal age, health, and socioeconomic characteristics. Moreover, the resulting estimates capture a local average treatment effect tied to unanticipated and accidental fertility increases, which may not generalize to broader, policy-induced fertility changes.

[15] Our model also connects to structural studies that incorporate fertility into household decision-making. In particular, Kim and Yum (2025) develop a life-cycle model of couples' labor supply and fertility decisions to study the impact of parental leave policies, while Adda et al. (2017) estimate a structural life-cycle model of female labor supply incorporating maternity leave to quantify the career costs of children in Germany.

3.1 Preferences

The household derives utility from consumption exceeding a minimum required level and from children. The lifetime utility U is given by:

$$U = \sum_{t=0}^{\infty} \beta^t \left[\frac{(c_t - X_t)^{1-\rho}}{1-\rho} + \theta \cdot b(n_t) \right], \quad \text{where } X_t = X_0 + \psi \cdot n_t, \quad c_t \geq X_t, \tag{1}$$

where $\beta \in (0,1)$ is the discount factor, $\rho > 0$ is the constant coefficient of relative risk aversion, $\theta > 0$ is the preference weight on children, $u(c_t) = \frac{(c_t - X_t)^{1-\rho}}{1-\rho}$ is the utility from consumption, $b(n_t)$ is the utility from children (increasing and concave), and X_t is the minimum required consumption, which increases linearly with the number of children n_t at the fixed rate of ψ.[16]

3.2 Household Budget Constraint

The household's wealth accumulation follows:

$$a_{t+1} = (1+r)a_t + y_t^{i_t} - c_t - e(n_t) - \kappa \cdot \mathbb{I}_{i_t=\text{entrepreneur},\ i_{t-1}=\text{wage earner}}, \tag{2}$$

where a_t is beginning-of-period wealth, r is the risk-free interest rate, and $y_t^{i_t}$ denotes labor income, defined as:

$$y_t^{i_t} = \begin{cases} w & \text{if } i_t = \text{wage earner}, \\ \mu + \varepsilon_t & \text{if } i_t = \text{entrepreneur}, \quad \varepsilon_t \sim \mathcal{N}(0, \sigma^2), \end{cases} \tag{3}$$

where w is the fixed wage from employment, and $\mu + \varepsilon_t$ represents risky entrepreneurial income, consisting of a mean income μ and stochastic shock ε_t. The function $e(n_t)$ represents

[16] If the minimum required consumption is modeled as being proportional to the childrearing cost, i.e., $X_t = X_0 + \alpha \cdot e(n_t)$, the mechanism linking fertility to effective risk aversion becomes cost-based rather than headcount-based. The core predictions still hold, but the curvature of $e(n_t)$ may influence the magnitude of fertility's deterrent effect on entrepreneurship.

the cost of childrearing, assumed to be increasing and concave in n_t. The entry cost κ is incurred only when the household switches from employment to entrepreneurship, capturing startup and search frictions.

3.3 Fertility Dynamics

Fertility is an endogenous binary choice made each period:

$$n_{t+1} = n_t + f_t, \quad f_t \in \{0, 1\}, \quad \text{subject to } n_t \leq N_{\max}, \tag{4}$$

where $N_{\max}$ denotes the policy-imposed fertility cap (e.g., one during the one-child policy period and two after the introduction of the two-child policy). The fertility decision f_t is subject to this cap but also depends on household characteristics such as income level, parental age, and the gender of the first child. These factors influence the household's perceived tradeoff between the marginal utility of having an additional child and the associated economic and opportunity costs.[17]

3.4 Recursive Bellman Equation

Let $V_t(a_t, i_{t-1}, n_t)$ denote the household's value function at time t, given current wealth a_t, previous occupation i_{t-1}, and number of children n_t. The Bellman equation is:

$$V_t(a_t, i_{t-1}, n_t) = \max_{c_t \geq X_t,\ i_t,\ f_t} \left\{ \frac{(c_t - X_t)^{1-\rho}}{1-\rho} + \theta \cdot b(n_t) + \beta \cdot \mathbb{E}\left[V_{t+1}(a_{t+1}, i_t, n_{t+1})\right] \right\}, \tag{5}$$

subject to:

[17]For example, higher-income households may derive greater utility from additional children while facing relatively lower marginal financial burden, making further childbirth more attractive. Younger households may anticipate higher future earnings and a longer planning horizon, thus perceiving lower effective cost. Additionally, in the presence of son preference, households whose first child is female may assign higher marginal utility to a second child, increasing the likelihood of expanding the family. Conversely, older or financially constrained households are more likely to weigh the costs more heavily—both direct costs (e.g., childcare, education, housing) and indirect costs (e.g., career interruption, reduced occupational flexibility)—which reduces the probability of having another child, even when policy permits it.

$$a_{t+1} = (1+r)a_t + y_t^{i_t} - c_t - e(n_t) - \kappa \cdot \mathbb{I}_{i_t=\text{entrepreneur},\ i_{t-1}=\text{wage earner}}, \tag{6}$$

$$n_{t+1} = n_t + f_t, \text{ subject to } n_t \leq N_{\max}. \tag{7}$$

3.5 Characterization of Optimal Choices

At each time t, the household chooses consumption c_t, occupational status i_t, and fertility decision f_t to maximize the Bellman equation subject to the household's dynamic constraints. The optimal consumption level c_t satisfies the Euler equation implied by the Bellman recursion:

$$\frac{\partial V_t}{\partial c_t} = u'(c_t) = (c_t - X_t)^{-\rho} = \beta(1+r) \cdot \mathbb{E}_t \left[\frac{\partial V_{t+1}}{\partial a_{t+1}} \right], \tag{8}$$

Here, $u'(c_t)$ denotes the marginal utility of consumption, measuring the additional utility gained from consuming one more unit of c_t. The right-hand side represents the marginal value of wealth—i.e., the expected increase in lifetime utility from an additional unit of wealth carried into the next period. This condition equates the marginal utility of consumption above the minimum threshold to the discounted marginal value of future wealth. In our framework with a minimum required consumption level, the marginal utility $u'(c_t) = (c_t - X_t)^{-\rho}$ becomes steep as c_t approaches the threshold X_t, reflecting a rise in effective risk aversion. The household with c_t close to X_t experiences high marginal utility and becomes less willing to reduce current consumption in favor of precautionary saving.

Occupational choice $i_t \in \{\text{wage earner}, \text{entrepreneur}\}$ is determined by comparing the expected continuation values from each option, accounting for the entry cost κ only when transitioning into entrepreneurship:

$$i_t^* = \arg \max_{i_t \in \{\text{wage earner,entrepreneur}\}} \left\{ \frac{(c_t - X_t)^{1-\rho}}{1-\rho} + \theta \cdot b(n_t) + \beta \cdot \mathbb{E}\left[V_{t+1}(a_{t+1}, i_t, n_{t+1}) \right] \right\}, \tag{9}$$

Fertility is chosen based on a comparison of the marginal utility from having an additional

child with the expected increase in future consumption needs and dynamic utility costs. The household chooses to have a child ($f_t^* = 1$) if:

$$f_t^* = \begin{cases} 1 & \text{if } n_t < N_{\max} \text{ and } \theta \cdot b'(n_t) + \beta \cdot \mathbb{E}\left[V_{t+1}(a_{t+1}, i_t, n_t + 1) - V_{t+1}(a_{t+1}, i_t, n_t)\right] > 0, \\ 0 & \text{otherwise.} \end{cases} \tag{10}$$

Here, $b'(n_t)$ represents the marginal utility from having one more child, capturing the additional benefit the household receives from expanding the family size. This condition captures the tradeoff between the direct utility gain from an additional child and the indirect costs from higher minimum required consumption, which reduces the utility level at current consumption.

3.6 Model Implications

Our model yields several theoretical implications based on comparative statics. These remarks capture key mechanisms linking fertility decisions to occupational choice, operating through effective risk aversion shaped by proximity to subsistence consumption and the curvature of utility at low consumption levels.

Remark 1: Fertility reduces entrepreneurship via effective risk aversion. An exogenous increase in the number of children n_t raises the household's minimum required consumption, $X_t = X_0 + \psi \cdot n_t$, effectively tightening the gap between actual consumption c_t and the subsistence threshold X_t. The marginal utility of consumption is given by Equation (8), which rises rapidly as c_t approaches X_t. This reflects an increase in *effective* risk aversion: while the coefficient of relative risk aversion ρ is constant, the household becomes more sensitive to fluctuations in consumption when nearing the subsistence level. Differentiating

the marginal utility with respect to n_t,[18] we obtain:

$$\frac{\partial^2 u(c_t)}{\partial n_t \partial c_t} = \rho(c_t - X_t)^{-\rho-1} \cdot \psi > 0, \tag{11}$$

indicating that the steepness of the utility curve increases with fertility. As n_t increases, X_t increases, and utility curvature steepens.

Since entrepreneurship exposes the household to income volatility, the expected utility from the risky path deteriorates more than that of the safe path. Thus, increased fertility reduces the likelihood of choosing entrepreneurship by making households more averse to risk.[19] Appendix IA.1 provides a formal derivation of the mechanism underlying *Remark 1*, under the simplifying assumption that households consume a constant proportion of income each period. This allows for an analytical comparison of how increased fertility affects utility across occupations. The derivation confirms that the disutility from higher required consumption is amplified under income risk, supporting our model's implication that rising fertility reduces the relative attractiveness of entrepreneurship.

Remark 2: Lifting the fertility cap leads to an increase in childbirth and reduced entrepreneurship. A policy-imposed fertility cap $N_{\max}$ restricts household fertility below their preferred level. For some households, the one-child policy was binding in the sense that their unconstrained optimal fertility choice n_t^* exceeded the policy limit. When $n_t^* = N_{\max}$, a policy relaxation—such as the transition from a one-child to a two-child policy—allows these constrained households to increase fertility to their desired level, inducing a discrete jump in n_t. This raises the required consumption, $X_t = X_0 + \psi \cdot n_t$,

[18] Although n_t is an integer-valued fertility choice, we treat it as a continuous variable to derive comparative statics and characterize marginal effects. This approach follows standard modeling conventions, and the results should be interpreted as local approximations.

[19] This result holds under the assumption that the expected entrepreneurial income μ is not substantially higher than the wage income w. If $\mu \gg w$, the value of entrepreneurship may still dominate despite increased effective risk aversion, depending on the shape of the utility function and other household characteristics.

and intensifies effective risk aversion. The Euler equation reflects how this change affects intertemporal tradeoffs in Equation (8). As X_t increases, marginal utility rises, making current consumption more valuable and risky occupational choices less attractive. This shift affects occupational decisions: households that experienced a discrete fertility increase following the policy relaxation become less likely to engage in entrepreneurship due to heightened effective risk aversion.

Remark 3: Stronger child preference intensifies the tradeoff between fertility and entrepreneurship. A higher preference for children (i.e., a higher θ or $b(n_t)$) induces households to voluntarily choose greater fertility n_t following the policy relaxation. As shown in Equation (11), the marginal utility cost of additional children goes up along with n_t, and therefore, this should be greater for households with stronger child preferences, who optimally choose higher n_t. Consequently, households with strong revealed child preferences—such as those exhibiting son preference or early fertility—are more likely to exit entrepreneurship or avoid entry following an increase in fertility, particularly after policy relaxations that allow them to realize previously constrained fertility desires.

Remark 4: Financial constraints amplify the tradeoff between fertility and entrepreneurship. Wealth plays a critical role in shaping household risk tolerance and occupational choice. Financially constrained households—those with limited asset holdings—are more vulnerable to income fluctuations and face tighter tradeoffs when the fertility cap increases. Higher wealth a_t expands the feasible consumption set, allowing the household to maintain c_t farther above the minimum threshold $X_t = X_0 + \psi \cdot n_t$. This wider buffer reduces the steepness of the utility curve near subsistence, lowering effective risk aversion and making entrepreneurship more attractive.

Remark 5: Entrepreneurial income risk and limited intra-household insurance amplify the fertility–entrepreneurship tradeoff. A higher volatility of entrepreneurial income, captured by a larger σ^2, increases the utility cost of risk, particularly when effective risk aversion rises with fertility and the corresponding increase in the required consumption threshold, X_t. In other words, the expected utility loss from income risk becomes more pronounced as fertility increases, due to the steeper curvature of the utility function. This discourages entrepreneurship, especially for households lacking internal insurance mechanisms, such as those with a single earner or limited access to credit markets. For these households, fertility policy reforms impose a dual burden: increased fertility and exposure to higher risk, which together lead to a sharper decline in entrepreneurial activity.

4 Empirical Analyses

4.1 Data

Our primary data source is the China Family Panel Studies (CFPS) conducted by Peking University, a biennial household survey that collects detailed demographic information—including residence, hukou status, gender, age, number of children, and relationship to the respondent—as well as socio-economic variables such as entrepreneurial status, industry of employment, homeownership, home value, mortgage amount, government subsidy receipt, and education expenditure. This dataset covers 12,072 unique households in the period between 2012 and 2020. Additionally, we supplement the CFPS with data from the China Statistical Yearbook, incorporating province-level characteristics such as the unemployment rate, GDP growth rate, and population growth rate. Appendix A provides a more detailed description of the dataset, and Appendix B outlines the definitions of all variables used in the analysis.[20]

[20]CFPS is nationally representative, covering 25 provinces that together account for approximately 94.5% of China's population. It employs a multistage probability sampling design with implicit stratification and probability-proportional-to-size sampling (PPS) to minimize selection bias.

Table 1 presents summary statistics of our main dataset. *Entrepreneur* is the primary variable of interest and is defined as an indicator variable equal to 1 if a household includes a member who reports being self-employed.[21][22] Acknowledging potential biases in self-reporting—particularly due to incentives related to social insurance benefits—we also consider alternative definitions of entrepreneurship. These include cases where entrepreneurial income constitutes at least 10% of total household income and where entrepreneurial business assets exceed the median asset size in the same year-province level. Given that the mean likelihood of having an entrepreneurial household member is 0.093, the majority of households rely primarily on wage employment to support household finances.

4.2 Main Effects

We employ a difference-in-differences (DID) approach using biennial CFPS household survey data from 2012 to 2020 to analyze how household entrepreneurial activities vary with the introduction of the nationwide two-child policy across families with different exposures to it. More specifically, we estimate the following DID regression:

$$Y_{i,j,t} = \beta \cdot Treated_i \times Post_t + \delta \cdot Z_{i,j,t} + \eta_i + \mu_j + \phi_t + \epsilon_{i,j,t}, \tag{12}$$

where i denotes household in the CFPS surveys, j denotes province, and t denotes year. The main dependent variable $Y_{i,j,t}$ is an indicator variable of whether household i has a self-employed member (which represents household i's entrepreneurial choices) or the number of newborn babies over the past two survey years (which represents the household's birth

[21] Following Liang et al. (2018), Manso (2016), and Hamilton (2000), we define entrepreneurship as self-reported business ownership. This broad definition encompasses both subsistence entrepreneurs—individuals relying on small businesses for basic livelihood and transformative entrepreneurs, who drive innovation through their ventures. Thus, our analysis is not limited to innovative entrepreneurs alone. As we demonstrate in Panel B of Internet Appendix Table IA.3 in Section 4.4, our core finding that the two-child policy negatively impacts entrepreneurship remains consistent across both of the types.

[22] General family business is included in the definition, whereas agricultural family business is excluded from the definition.

choices). $Treated_i$ is an indicator variable equal to one if household i includes a married woman aged 20 to 45 in the pre-policy period, thus having higher biological feasibility for childbirth (and zero if household i does not have a married woman aged 20 to 45 in the pre-policy period),[23] and $Post_t$ is an indicator variable equal to one if the observation is made after the two-child policy (i.e., 2016, 2018, and 2020), and zero otherwise (i.e., 2012 and 2014).

We estimate Equation (12) in two ways: we first estimate it using the entire sample, and we then estimate it for two sub-samples separately: the first sub-sample group labeled "no-child families" includes families that did not have any child before the policy change and thus were unaffected (or less affected) by the two-child policy, and the second sub-sample group labeled "families with one or more children" includes families that already had children before the policy change and thus could deliver birth additionally after the new policy relaxed stringency on birth regulation.

When we implement our DID analysis using the entire sample, we aim to estimate the "total" effect of the two-child policy — that is, the average treatment effect — since the policy impacts both subgroups. Even for "no-child" families, fertility intentions can change due to long-term family planning: when they can have two children in total, it may be beneficial to consider having the first child at a younger maternal age. Because the two-child policy is intended to encourage childbirth among both families with existing children and those without, our DID analysis using the full sample provides a more comprehensive estimate of the policy's overall effect on entrepreneurship. In contrast, when we conduct DID

[23]The World Health Organization defines the reproductive age range as 15 to 49. Thus, households in the control group may still have births after the two-child policy, but with lower probability due to reduced biological feasibility. We acknowledge that some control groups in the pre-period may exhibit characteristics of treated groups in the post-period if married women aged 20-45 join the households, while some treated groups in the pre-period may exhibit the characteristics of control groups if married women aged 20-45 leave the households during the post-period. This change in the composition of treated and control groups could potentially confound our results. However, this bias is likely to work against our findings, making it more difficult to identify significant effects in the treated sample during the post-period.

analyses separately for the two subgroups, we estimate heterogeneous treatment effects.

$Z_{i,j,t}$ is a set of control variables for household-level characteristics including family income, family size, education expenditure, government subsidy, urban indicator, mortgage amount, home value, and homeownership status, and province-level characteristics including unemployment rate, GDP growth rate, and population growth rate. We include household fixed effects (η_i) in all specifications to capture any time-invariant household-level unobservable factors, such as family traditions, which might simultaneously affect households' entrepreneurial decisions and birth choices. We also include fixed effects for the residence province (μ_j) to capture time-invariant province-specific unobservable characteristics, such as business cycles and regulatory changes. We further control for year fixed effects (ϕ_t) to mitigate concerns that year-specific economic conditions could confound our results.[24]

We estimate Equation (12) using a linear probability model (LPM) because probit and logit regression estimates may be inconsistent under an extensive list of fixed effects (i.e., the incidental parameter problem, Wooldridge (2002)).[25] We cluster standard errors at the household level.

The key coefficient of interest is the DID estimate, β, which captures the causal effect of the two-child policy on household decisions in the labor market and family planning. It essentially captures the entrepreneurial and birth choices for households with a wife with higher biological feasibility to delivering a baby relative to households with a wife with lower biological feasibility, and delivers the average treatment effect in a full-sample DID analysis. When it is based on two sub-samples, we expect the DID estimates to be stronger in the subgroup with children already.

Panel A of Table 2 reports the full-sample estimation results for Equation (12) on how

[24]In an alternative specification, we include household fixed effects as well as province-by-year fixed effects to account for time-varying unobservable characteristics at the province level.

[25]Out of a total of 50,934 observations, 2,401 predicted outcome values fall outside the $[0, 1]$ range. This represents a reasonable proportion of out-of-bounds predictions for a linear probability model.

Chinese households' entrepreneurial choices (*Entrepreneur*) vary by the degree of biological feasibility of a married woman to child-bearing before and after the policy. In Columns (1) and (2), we estimate policy effects on the full sample and find that the treated group including a married woman with stronger biological feasibility for childbirth are about 0.9 percentage point to 1.1 percentage points less likely to have an entrepreneur in the household compared to the control group including a married woman with weaker biological feasibility, consistent with our model prediction *Remark 1* that the reform reduces entrepreneurship.[26] Given that the unconditional likelihood of entrepreneurship is 9.3 percentage points, Chinese households' labor choices significantly changed after the policy.

The identifying assumption of the difference-in-differences strategy is parallel trends, which requires that the treated group and the control group indicate similar entrepreneurial trends before the two-child policy. We thus replace the indicator variable $Post_t$ in Equation (12) with a set of indicator variables for each sample year except 2014 that is set as the base year. Column (3) of Panel A in Table 2 shows that a statistically significant decline in the likelihood of having an entrepreneur after the policy change in families with a married woman aged 20 to 45.[27] Panel A of Figure 1 presents the corresponding dynamic DID estimates, showing a post-2016 decline in household entrepreneurship and parallel pre-trends, supporting the validity of our DID strategy. Taken together, these results support the interpretation that the demographic shock at the national level causally reduced the likelihood of entrepreneurship at the household level.

In Internet Appendix Table IA.1, we further consider two alternative dependent variables: (i) an indicator variable "Becoming Entrepreneur" that equals one if a household had no self-employed member in the prior survey year but has at least one self-employed member in the current survey year, and (ii) an indicator variable "Quitting Entrepreneur" that equals

[26]This finding arises due to a reduction in effective risk aversion, a mechanism detailed in Section 5.

[27]We carry out the same parallel trend test on PSM matched sample in Section 3.3, and find a sharp contrast in entrepreneurial activities in the years before the two-child policy and after the two-child policy.

one if a household had at least one self-employed member in the prior survey year but no such member in the current survey year. We find that our baseline result is driven by both a decline in the incentive to start a new business and an increase in the likelihood of quitting current entrepreneurial activities.

In Panel B of Table 2, we report the estimation results of Equation (12) across two different subgroups: no-child families and families with one or more children. Columns (1) and (2) show that the former group experience a drop of 0.6 percentage point to 0.7 percentage point in the likelihood of having an entrepreneurial member, which are not statistically significant, whereas Columns (4) and (5) show that the latter group experience a drop of 1.9 percentage points to 2.1 percentage points in the likelihood of having an entrepreneurial member. This differential effect attributes to a varying degree of freedom to deliver a new baby, which should be a more relevant factor to the group with binding conditions, while the group with non-binding conditions could still be affected as they may revise long-term family plans in response to the policy. Similarly, Columns (3) and (6) show a stronger response in the entrepreneurial activities only after the two-child policy for the families with one or more children. In this regard, we find that entrepreneurial choices were differentially affected by the legally binding birth constraints in the pre-policy period, consistent with our model prediction *Remark 2* that lifting the policy-imposed fertility cap reduces entrepreneurship for some households previously constrained by the one-child policy.

4.3 Validation Tests: Child Birth

After presenting evidence for a causal effect of birth policy shocks on entrepreneurial choices, we conduct a validation test to examine if the two-child policy indeed led to more birth among the treated group, and hence having a newborn baby caused reduced entrepreneurship. We again estimate Equation (12), using the number of newborn babies as the outcome variable,

and report the results in Panel A of Table 3.[28] Columns (1) and (2) show that the treated group had about 0.023 to 0.028 more births relative to the control group even after we control for birth determinants documented in the literature including uninsurable earnings risk (Sommer, 2016; Choi, 2017; Rocha and Fuster, 2006; Doepke et al., 2023), mortgage (Hacamo, 2021; Cumming and Dettling, 2024), and family wealth (Lovenheim and Mumford, 2013). Given that the unconditional mean number of newborn babies per household in a given survey year is 0.066, the two-child policy had a statistically and economically significant effect on fertility, which confirms that the policy is effective in our sample.

Furthermore, Column (3) shows that the treated and control groups followed similar pre-policy trends in childbearing, reinforcing the interpretation that the two-child policy influenced the fertility decisions of younger households and, consequently, their entrepreneurial choices. Panel B of Figure 1, following the same design as Panel A, supports this link by showing a marked rise in births from 2016 to 2020. Together, these findings suggest that the relaxation of fertility restrictions increased childbirth, thereby reducing household participation in entrepreneurship—consistent with our model predictions.

Recent literature highlights the importance of adjusting for correlation between outcome variables when conducting similar difference-in-differences analyses. In our setting, the fertility decision variable and the entrepreneurial activity variable can be correlated with each other, necessitating appropriate correction. Following Heath et al. (2023), we apply a multiple testing correction using 1,000 bootstrap replications. We report p-values for both outcome variables under two model specifications: one that includes household, province, and year fixed effects, and another that includes household and province-by-year fixed ef-

[28]To be more specific, we use the change in the number of children reported by households between survey waves as our outcome variable. While this change may occasionally reflect the adoption of children, it is important to note that adoption rates in China are relatively low. According to the Ministry of Civil Affairs, the number of registered adoptions nationwide declined from 44,260 in 2009 to 15,143 in 2018. Given these figures, the vast majority of changes in household child counts primarily reflect the arrival of newborns rather than adopted children.

fects. Figure 2 shows that p-values on these variables are all below 0.05, confirming that two-child policy had causal effect on both birth decisions and entrepreneurial decisions.

4.4 Robustness Checks

In addition to main results, we consider various tests to ensure that our results remain robust to different control groups, family compositions, alternative definitions of entrepreneurship, whether rural areas are included, bad controls, industry heterogeneity, and the gender of entrepreneurs.

First, we implement a synthetic difference-in-differences approach, following Arkhangelsky et al. (2021) in order to mitigate the concern that baseline Equation (12) provides a biased estimate if the treated and control groups are systematically different. We regress the entrepreneurial choice variable on control variables, collect residuals, and regress the residuals on the interaction of the treatment dummy and the post dummy. Panel A of Table 4 shows that we still find similar significant effects of the two-child policy on birth choices and entrepreneurial choices. In other words, our finding is robust to a synthetic control group constructed by all our covariates.

Second, to further ensure that inherent differences between the treated and control groups are not driving our empirical results, we conduct a robustness check by means of matching the characteristics of our treated group to those of our control group, using the nearest neighbor propensity score matching (PSM) technique. Specifically, we obtain the control sample by estimating the probability of having a married woman aged 20 to 45 in 2014 using the covariate variables listed in Table 2. We then use the predicted probability to match, without replacement, a treated household with a control household in the same province and year that has the closest propensity score, using a caliper of 0.001. We compare preconditions between the treated and control groups using pre-period data in Panel A of Internet Appendix Table IA.2. We find that the mean values of the matching variables in

the pre-policy period are significantly different between the treated group and the control group, but the mean differences in these variables become insignificant after the matching, as shown in Panel B of Internet Appendix Table IA.2. We then use the Lawley-Hotelling trace test to examine the joint significance of the differences across all characteristics. As the p-value is 0.98, we fail to reject that all variables together are significantly different. These test results suggest that our matching approach performs reasonably well and that matched control households are very similar to treatment households; thus, the random assignment assumption underlying our difference-in-difference analysis is supported.

Panel B of Table 4 presents robust results from this propensity score matching: Columns (1) and (2) show that the treated group experienced a drop in the likelihood of having an entrepreneurial member by 2.6 to 2.7 percentage points. More to the point, the magnitude of the effect on the entrepreneurial choice for the matched-sample is larger than that in the main sample in Panel A of Table 2; if anything, the true effects of the two-child policy could be stronger, once we take into account for differences in the characteristics of households. Thus, our results are unlikely to be attributed to differences in household characteristics.

To further address concerns about the comparability of the treated and control groups, we refine the treatment definition by restricting attention to households that remain biologically capable of childbearing. Specifically, we compare households with a married woman aged 36–45 to those with a married woman aged 26–35. Both groups are plausibly fertile, but the older group faces substantially greater biological urgency due to the sharp decline in fecundity at later ages.

We classify the 36–45 group as the refined treated group. Panel C of Table 4 shows that these households are more likely to have a birth and less likely to engage in entrepreneurship following the policy. The results reinforce our interpretation that fertility and entrepreneurial choices are jointly determined and that policy effects are concentrated among households facing tighter biological constraints on fertility timing.

Relatedly, there remains concern that the composition of the treatment group and control group in the main sample differs. Specifically, the control group could include (i) households with married women outside the 20–45 age range or (ii) households without any married women. For the case that the control group includes older married women—who tend to be more risk-averse (Barsky et al., 1997)—this could bias our estimates toward zero by diluting the treatment effect. However, our results remain robust to their inclusion. Moreover, there is no observed difference in revealed risk preferences between the treated and control groups unless the women in the treated group had recently given birth as will be shown in Table 5. As for the latter group (households without married women), the most strikingly distinct family type would be single-person households, who may be more likely to pursue entrepreneurship than married households (Roussanov and Savor, 2014). We address this concern by excluding these single-person households from the control group in our baseline regression. Panel A of Internet Appendix Table IA.3 demonstrates that our results remain robust after this exclusion. Therefore, the compositional difference is not the driver of our empirical findings.[29]

Third, we use alternative definitions of entrepreneurship in Panel B of Internet Appendix Table IA.3 as we want to focus on serious entrepreneurs who contribute substantially to household income or involve larger-scale businesses, rather than subsistence or informal ventures.[30] In Columns (1) through (3), we use as the new outcome variable an indicator variable of whether family includes a member who at makes up at least 10% of family income. We find that the treated group experienced a drop in the likelihood of having an

[29]Choi et al. (2024) show that motherhood results in worse job prospects in the Chinese labor market following the two-child policy, primarily due to concerns about potential disruptions to job operations. If this is indeed the case, married women aged 20 to 45 should be less likely to participate as wage earners and more likely to pursue entrepreneurship. This dynamic would introduce an upward bias in our estimates, leading to an understatement of the true negative effect (i.e., a smaller estimated magnitude).

[30]This distinction follows Schoar (2010), who differentiates between subsistence entrepreneurs, who engage in low-scale business out of necessity, and transformational entrepreneurs, who actively pursue growth and higher returns.

entrepreneurial member by 0.7 to 0.9 percentage points, based on the new definition, and this estimate is consistent with a sign of parallel trends. In Columns (4) through (6), we use as the new outcome variable an indicator variable of whether a family has an entrepreneur whose business assets exceed the median business asset size in the same year-province. We find that the treated group experienced a drop in the likelihood of having an entrepreneurial member by 1.0 to 1.2 percentage points, and the parallel trends again hold. Therefore, the effects of the birth policy remain significantly negative on entrepreneurship when we consider serious entrepreneurs.[31]

Fourth, we examine the policy effect on households living in urban areas by excluding households living in rural areas from the sample. This is because family farming, common in rural China, may qualify as a form of entrepreneurship, whereas our focus is on traditional entrepreneurs who assume financial risk with the goal of generating profit, creating jobs, and fostering innovation. Panel C of Internet Appendix Table IA.3 shows that the two-child policy still had negative impact on entrepreneurial choices. Thus, the policy change deterred the traditional form of entrepreneurship rather than family farming.

Fifth, we make sure that our empirical results are not driven by "bad controls". In order to show that the two-child policy is the main driver of entrepreneurial choices, we estimate the baseline regression in Equation (12) without including any control variables. Columns (1) and (2) in Panel D of Internet Appendix Table IA.3 show that our baseline results do not suffer from bad control issues. Similarly, Columns (3) and (4) show that our results on serious entrepreneurs are robust without including any control variables. In this respect, we document that the introduction of the new birth policy is the main determinant of entrepreneurial choices.

[31]In Columns (7) through (12) of Panel B in Internet Appendix Table IA.3, we exclude highly successful entrepreneurs from the sample and instead focus on less successful ones—specifically, those who contribute less than 10% of family income or operate a business smaller than the province-year median. We again observe a decline in entrepreneurship among these groups, suggesting the robustness of the mechanism across different entrepreneurial stages.

Sixth, we ensure that the tradeoff between entrepreneurship and birth choices is not driven by specific industries. For that matter, we identify the industry of the largest income earner in each household, regardless of whether this earner is a wage earner or an entrepreneur, and include industry-by-year fixed effects in our analysis. As shown in Panel E of Internet Appendix Table IA.3, the tradeoff remains robust after controlling for these fixed effects. Therefore, we confirm that the tradeoff between entrepreneurship and birth choices persists across diverse industrial contexts.

Seventh, we address the possibility that the observed decline in entrepreneurial activity among treated households may be mechanically driven by female entrepreneurs temporarily suspending their businesses due to childbirth. To examine this, we redefine the outcome variable as an indicator for whether the household includes at least one male entrepreneur, rather than focusing on overall household entrepreneurship. Panel F of Internet Appendix Table IA.3 shows that the negative relationship between the two-child policy and entrepreneurship remains robust under this specification, suggesting that the fertility-entrepreneurship tradeoff is not solely driven by temporary business interruptions among women. Importantly, this result highlights that the increase in household-level risk from childbirth can spill over to other family members—particularly men—by altering overall household risk aversion and shaping collective labor market decisions.

5 Mechanisms: Family Risk

5.1 Effective Risk Preference Changes

As discussed earlier in our model, we argue that households' effective risk preferences shift upon childbirth, and that this shift leads to a reduced likelihood of engaging in entrepreneurial

activity.[32] To support this mechanism, we propose four sets of tests addressing changes in effective risk preferences from different perspectives.

The first test is related to revealed risk preferences derived from direct survey responses. To that end, we use a risk preference questionnaire administered during the 2018 CFPS survey to assess households' revealed risk attitude.[33] The survey question asks whether the respondents would prefer a fixed amount at various levels or a fair coin toss gamble which would provide 200 RMB if the face is head and nothing if the face is tail.[34] Based on their certainty equivalent, we categorize respondents into three different risk types (Risk Category): 1 if the certainty equivalent is less than 100 (risk-averse), 2 if the certainty equivalent is equal to 100 (risk-neutral), and 3 if the certainty equivalent is greater than 100 (risk-seeking). Additionally, we confine the sample to respondents who answered all the "Big Three" financial literacy questions from Lusardi and Mitchell (2011) correctly so that we can filter out those who may not have understood the purpose of survey questions measuring certainty equivalent. Then, we select the categorical risk preference of the family member with the highest income and run an ordered logit regression, using the categorical risk preference as the dependent variable. We estimate the following model using a sample

[32]Parenthood is shown empirically to increase individuals' risk aversion (Kettlewell, 2019), and that lower risk tolerance reduces the likelihood of entrepreneurship (Hincapié (2020);Kanbur (1979); Kihlstrom and Laffont (1979); Hvide and Panos (2014))

[33]Since this questionnaire was only available in 2018, we compare household risk preferences cross-sectionally, exploiting variation in whether the household had a newborn in that survey year.

[34]The questionnaire first asks whether the respondents would be willing to take a fixed amount of 100 RMB or take a coin toss, in which they receive 200 RMB if they guess correctly and nothing otherwise. If the respondents prefer the former, they move on to the next question whether they prefer a fixed amount of 80 RMB or the coin toss. If the respondents prefer the coin toss in the first question, they move on to the next question whether they prefer 120 RMB or the coin toss. In this manner, the questionnaire uses 50 RMB, 80 RMB, 100 RMB, 120 RMB, and 150 RMB as different choices for the fixed amounts. Using the highest fixed amount that the respondents prefer as their certainty equivalent, we can measure their revealed risk preferences.

of 689[35] unique household observations from the CFPS database in 2018:

$$Y_i = \beta \cdot Treated_i \times New\ Born\ in\ 2018_i + \alpha \cdot Treated_i + \gamma New\ Born\ in\ 2018_i + \delta \cdot Z_i + \mu_j + \epsilon_i, \tag{13}$$

where *New Born in 2018*$_i$ is an indicator variable equal to one if household i had a newborn baby in that survey year and zero otherwise. All other variables are defined as previously described.

We present the estimation results of Equation (13) in Table 5. Columns (1) and (2) of Table 5 show that treated households who had a newborn in the survey year exhibit significantly lower revealed risk preferences, which is consistent with our model prediction *Remark 1* that fertility reduces entrepreneurship via effective risk aversion.[36] As giving birth in 2018 is an endogenous choice, one may be concerned that only inherently risk-averse households chose to have a child in that year. However, this concern for selection bias is ruled out as the coefficient on *New Born in 2018* is statistically insignificant. In addition, Column (3) shows that the coefficient on $Treated$ is insignificant, suggesting that there is no difference in revealed risk preference in our sample when we do not consider the recent birth. All results provide suggestive evidence that shift in risk preference upon the recent experience of childbirth could in turn affect entrepreneurial choices as opposed to innate heterogeneous preferences that shape labor choices.

We also find that a decline in revealed risk preference influenced another dimension of financial decision-making: stock market participation. This variable takes a value of one if a household holds any positive amount in the stock market, and zero otherwise. As shown in Panel G of Internet Appendix Table IA.3, the treated group exhibited a reduced rate of

[35]The survey question on revealed risk attitude was asked only in 2018. Moreover, after selecting respondents with financial literacy, we are left with 689 unique household observations.

[36]The coefficient on the sum of the interaction term *Treated × Born in 2018* and *Born in 2018* is -0.795 in Column (1) and -0.897 in Column (2), with corresponding z-statistics of -2.47 and -3.04, respectively. Thus, the treated group experiencing birth in 2018 exhibits a statistically significant decline in revealed risk preference.

participation in the capital market. This result further supports the interpretation that the decline in risk preference is the key driver behind changes in household financial behavior.

5.2 Cultural Factor: Patriarchy and Lineage

China has long exhibited a cultural preference for sons, and gender imbalance during the one-child policy is documented in the literature (Wei and Zhang, 2011; Wei, 2015). In this context, we test if this cultural factor played a role in impacting fertility choices and ultimately, entrepreneurial choices after the two-child policy was introduced. Specifically, we restrict the sample to families with one or more children (as in Panel B of Table 2), distinguish between those with only daughters and those with at least one son, and estimate Equation (12) for each group. The intuition is that, if son preference is operative, the former group would be more inclined to have another child in order to bear a son and continue the family lineage. Columns (1) and (2) of Table 6 show that families with only daughters experienced a statistically significant decline of 2.8 to 2.9 percentage points in the likelihood of having an entrepreneurial member, which is statistically significant, but Columns (3) and (4) show that families with at least one son did not experience significant change in the entrepreneurial choices. In other words, there is economic significance in the effect across the two sub-samples, and son preference is associated with a lower likelihood of entrepreneurship as families with only daughters may focus on giving birth to a male baby and thus postpone entrepreneurial plans. This finding reinforces the view that the two-child policy constituted not only a demographic shock but also interacted with deep-rooted cultural norms, which is consistent with our model prediction *Remark 3* that stronger child preference intensifies the tradeoff between fertility and entrepreneurship.

5.3 Subsistence Ratio and Financial Constraints

Our model suggests that as consumption approaches the minimum subsistence level, the curvature of the utility function implies households to become effectively more risk-averse. To test whether this mechanism—where proximity to subsistence consumption amplifies risk aversion—suppresses entrepreneurial activity, we employ the subsistence ratio as our empirical criterion. This ratio is calculated as the share of subsistence expenditure (expenditures on food, clothing, daily necessities, housing, transportation, and communication) relative to total expenditure. Then we compute the median subsistence ratio in the pre-policy period in rural/urban areas for each province and divide the sample into high- and low-subsistence-ratio groups. Columns (1) and (2) of Panel A in Table 7 show that treated households with a high subsistence ratio experienced a decline in entrepreneurial activity after the implementation of the two-child policy. In contrast, Columns (3) and (4) reveal no such change among households with a low subsistence ratio. These results empirically confirm that when households consume near the minimum required level, their heightened risk aversion deters engagement in entrepreneurship, consistent with our *Remark 1.*

Next, we examine the role of financial constraints in amplifying this decline in entrepreneurship through increased risk aversion. Financially constrained households exhibit greater aversion to entrepreneurial risk after childbirth, as they lack assets to buffer against income volatility. In China, housing assets often constitute the primary form of financial wealth and play a critical role in entrepreneurship by serving as collateral (e.g., Schmalz et al., 2017; Oh et al., 2021). In light of this, we measure family housing wealth by calculating each household's net housing value (excluding mortgage debt) and determining the median within rural and urban areas of each province. Using this cutoff, we categorize households into groups with high and low housing wealth.

Panel B of Table 7 presents the interaction between the subsistence ratio and financial

constraints. Column (1) shows that among households with a high subsistence ratio, financial constraints reduce entrepreneurial activity more. Conversely, Column (2) demonstrates that high housing wealth relaxes budget constraints, mitigating this tradeoff. For households with a low subsistence ratio, financial constraints are irrelevant: Columns (3) and (4) indicate that, given their distance from the subsistence threshold, these households can maintain sufficient spending and thus do not disengage from entrepreneurship.

Taken together, these findings suggest that tightening consumption constraints induce more cautious behavior, deterring entrepreneurship. The fertility-entrepreneurship tradeoff is most pronounced among households that are both financially constrained and close to their consumption floor, consistent with our model prediction *Remark 4*.

5.4 Entrepreneurial Income Risk

Our next test investigates whether the fertility-induced decline in entrepreneurship is stronger for households exposed to higher entrepreneurial income risk. In our model, the income from entrepreneurship is stochastic, and its volatility (σ) reduces the attractiveness of entrepreneurship when households become more risk-averse due to childbearing. This implies that childbirth will lead to a sharper decline in entrepreneurship in more uncertain (i.e., riskier) industries. To test this, we follow Gottlieb et al. (2022) and construct industry-level measures of entrepreneurial risk by computing the 2-year failure rates of private firms using the Bureau van Dijk's Orbis database.[37] We match these risk measures to households based on the industry of the family head, under the assumption that the industry in which the household head is employed is likely to be the industry of entry if they pursue entrepreneurship.[38]

[37] We construct the failure rate based on the existence of financial reports in this dataset; for a given firm in a year, we record it to have survived if its financial report is again included in the data two years later, and then aggregate the survival rate to the industry level.

[38] While industry-level firm failure rates provide a proxy for entrepreneurial income volatility, this measure may not fully capture the heterogeneity in income risk faced by individual entrepreneurs. For instance, failure rates may reflect firm exit due to reasons unrelated to income fluctuations (e.g., mergers, retirement, or

We estimate Equation (12) in these two sub-samples separated by the median industry failure rate. Columns (1) and (2) of Table 8 show that the treated households whose family heads work in industries with higher failure probabilities experienced a decline in entrepreneurial activities after the two-child policy,[39] whereas Columns (3) and (4) show that there is no such change among households whose family heads work in industries with lower failure rate. Hence, the risk aversion of entrepreneurs relative to wage earners amplifies upon possible birth when they work in an industry with a high chance of failure, which leads to a lower likelihood of entrepreneurship. These empirical findings align with our model prediction *Remark 5* that households are more likely to exit or avoid riskier entrepreneurship after having a newborn.

5.5 Intra-Household Risk Sharing

Our next test examines the role of household-level risk sharing: we argue that entrepreneurial status may not be sustained if labor income sources are insufficiently diversified within the household. For this channel, we split the sample into families with a low or high number of income earners based on whether the number of family members earning positive labor income is greater than or at (or below) the sample median. We estimate Equation (12) in these two sub-samples. Panel A of Table 9 shows that entrepreneurial activities decreased only for families with fewer family members who provide a different source of household

strategic closure), and within-industry variation in entrepreneurial outcomes could be substantial. Moreover, households may enter niche segments or rely on informal income sources that are not well represented in formal sector failure rates. We acknowledge these limitations and interpret our results as reflecting broader industry-level risk exposure rather than precise household-level volatility.

[39]Based on Bureau van Dijk's Orbis database, we find that in the sample period, China experienced relatively low survival rates in the following sectors: Education, Culture, sports and recreation, Health, social security and public welfare, Real estate, Hotel and catering service, Agriculture, forestry, animal husbandry and fishery, Construction, and Production and supply of electricity, gas and water (in the increasing order of survival rates). On the contrary, it experienced relatively high survival rates in the following sectors: Water resource, environment and public facility management, Transportation, storage, and postal service, Public administration and social organization, Mining, Information transmission, computer service and software, Scientific research, technical service and geological prospecting, Wholesale and retail, and Manufacturing (in the increasing order of survival rates).

income. This finding supports the risk preference change mechanism.

Similarly, we test whether households with a high concentration of labor income in a single family member experience a decline in entrepreneurship. To do so, we split the sample into two groups: households with an income concentration rate above or equal to the sample median, and those with a concentration rate below the median. We estimate Equation (12) using these two sub-samples. Panel B of Table 9 shows that entrepreneurial activities decreased only for families with high income concentration. In other words, only when the household-level income risk of an entrepreneur is shared with other family members, can the family support this entrepreneurial activity. All our results in Table 9 are consistent with our model prediction *Remark 5*.

These findings on intra-household risk sharing are also consistent with the broader literature on labor market dynamics within families. In particular, Ortigueira and Siassi (2013) find that labor supply goes up for a spouse in case the other spouse becomes unemployed among families with a low level of wealth, and Shore (2010) finds counter-cyclical risk-sharing benefits of marriage due to diversified labor income risks. Likewise, Wang (2019) documents an added-worker effect whereby workers' job search intensity goes up upon the unemployment of their spouse. In this respect, we document that entrepreneurship represents another dimension of choices in the labor market in which intra-household risk sharing plays a critical role.

6 Alternative Explanations

While our results suggest that China's two-child policy reduced household entrepreneurship through heightened effective risk aversion, it is important to consider potential alternative explanations, including childcare time constraints, gender discrimination in the labor market, macroeconomic factors coinciding with the birth policy change in 2016, and occupational sorting toward the public sector. We conduct a series of tests below, and our results cannot

be simply attributed to those alternative explanations.

Childcare time costs. One plausible alternative explanation is that childcare demands after giving birth crowd out the time and effort required for entrepreneurial ventures. Recent international studies based on Canadian, Dutch, and Norwegian settings provide some supporting evidence: Bonney et al. (2025) link childbirth directly to reduced entrepreneurial effort and lower firm profits in Norway, Core and Karpati (2025) show that maternity benefits shift time allocation away from formal daycare in the Netherlands, and Rutigliano (2025) demonstrate that accessible childcare and progressive gender norms can mitigate these adverse effects on female entrepreneurship in Canada.

If time constraints were the primary driver for our main finding, we would expect to observe differential entrepreneurial responses between large families (above the median family size) and small families (below the median), as the presence of non-parental family members such as grandparents could alleviate childcare burdens and enable parents to focus more on entrepreneurship. We estimate Equation (12) separately for these two subsamples, based on family size in 2014, and report the results in Panel A of Internet Appendix Table IA.4. While the DID coefficients are significant in both subsamples, we find no differential impact of the policy on entrepreneurial status across the two subsamples.[40]

Moreover, the time-allocation hypothesis cannot account for the heterogeneous patterns in our mechanism tests based on industry-specific failure rates. If time constraints were the primary driver, the entrepreneurial decline should be uniform across industries, as childcare demands are not specific to income risk. However, Table 8 shows the effect is concentrated entirely in high-failure-rate industries—an asymmetry consistent with heightened risk aversion but difficult to reconcile with time costs. This collective evidence suggests that risk sensitivity, rather than time scarcity, drives our findings.

[40]Comparing the DID coefficients between Columns (1) and (3), the Chi-squared statistic is 0.05 with a p-value of 0.83; for Columns (2) and (4), the statistic is 0.07 with a p-value of 0.80.

Maternal labor market discrimination. A second alternative explanation is that the anticipation of another child may expose mothers to labor market discrimination, leading to job loss risk and reducing stable income sources, which in turn lowers the household's capacity to sustain entrepreneurial activity. If this maternal job-loss channel were the main driver, we would expect the policy effect to be concentrated among households where the wife holds a wage job, since these households would be most vulnerable to the income shock from potential job loss. However, our subsample analysis in Panel B of Internet Appendix Table IA.4, which restricts the sample to households whose wives have employment status less susceptible to anticipated fertility penalties in the labor market. In columns (1) and (2), we restrict our sample to wives without wage jobs; in columns (3) and (4), the sample only includes wives who are self-employed. We find significantly negative effects of the two-child policy. These results thus rule out the maternal job-loss channel as the main mechanism.

Confounding macroeconomic factors. Another potential concern is that the onset of the universal two-child policy in 2016 coincided with a period of economic downturn in China, as well as the announcement of *Made in China 2025* in May 2015—a major industrial policy aimed at upgrading Chinese manufacturing that could have differentially affected entrepreneurship across sectors, regions, and household types. Under such conditions, a cyclical downturn might lead to involuntary entrepreneurial exits, while the resulting increase in leisure time could lower the opportunity cost of childbearing, generating a spurious negative correlation between the policy and entrepreneurship. However, this explanation is not supported in several of our earlier tests. First, we have included industry-year fixed effects in Panel E of Internet Appendix Table IA.3, which absorb time-varying sectoral business opportunities. Second, we have included province-year fixed effects in all alternative specifications, which absorb local economic fluctuations. Third, our test for industry-risk heterogeneity (Table 8) reveals that the policy effect is isolated to high-failure-rate sectors. This sectoral asymmetry supports a risk-aversion mechanism but is difficult to reconcile with

a general macroeconomic shock, which would typically induce a more uniform contraction across the economy. Together, our main finding cannot be simply attributed to confounding macroeconomic factors.

Occupational preferences for public sectors. A final concern is a potential shift in labor market preferences toward the public sector following intensified competition for jobs. The growing appeal of the "Iron Rice Bowl", characterized by stable income and comprehensive benefits, may have led young workers to prioritize public-sector careers over entrepreneurial ventures. Furthermore, public-sector employees may have been more likely to comply with the two-child policy to signal institutional loyalty or enhance promotion prospects, and were also subject to stricter enforcement of the one-child policy before the reform. If the two-child policy disproportionately affected public-sector households, the observed decline in entrepreneurship could partly reflect this occupational sorting rather than a fertility-induced risk mechanism. To address this concern, we re-estimate our baseline specification after excluding individuals employed in civil service and public-sector industries, including education, health/social security/public welfare, public administration and social organization. As shown in Panel C of Internet Appendix Table IA.4, our results remain robust to this exclusion. This suggests that the observed decline in entrepreneurship is not merely a byproduct of occupational sorting into the public sector.

7 Conclusion

In this paper, we investigate how China's nationwide two-child policy influenced households' entrepreneurial choices and child-raising decisions. We document that households with a married woman with strong biological feasibility for childbirth were more likely to prioritize childbirth and were less likely to engage in entrepreneurial activity after the regulatory change. This represents a significant change in labor activities, given that entrepreneurship in our data produces positive labor income and makes up a significant fraction of family

income. We implement several tests based on revealed risk preferences, proximity to subsistence consumption in combination with financial constraints, entrepreneurial risk, and intra-household risk-sharing, which collectively validate the reduced risk preference mechanism. In this respect, this paper sheds light on the implications of family planning, not just on demographic changes but on labor market outcomes, underscoring the need for coordinated design of birth policies alongside labor and innovation policies. Moreover, given the central roles of both population dynamics and entrepreneurship in driving economic growth, policies facilitating the dual roles of young entrepreneurs in both career development and family expansion are called for.

Appendix A Database Description: China Family Panel Studies

The China Family Panel Studies (CFPS) is a nationally representative longitudinal survey conducted by the Institute of Social Science Survey at Peking University. Funded by the Chinese government, the CFPS collects detailed micro-level data on Chinese communities, families, and individuals, covering both economic and non-economic activities and behaviors.

Initiated in 2010 and conducted biennially, the CFPS tracks changes over time in areas such as economic activities, educational outcomes, family structure, health and wellbeing, and social interactions. The survey covers both urban and rural areas across multiple provinces, providing a comprehensive and balanced view of Chinese society. In the 2010 baseline survey, approximately 15,000 families and 30,000 individuals were interviewed, achieving a response rate of about 79%. Respondents are followed in subsequent waves, which enables the analysis of dynamic changes at both the household and individual levels over time.

The sampling design supports both regional comparison and national representativeness. The survey initially over-sampled five provinces, with 1,600 families in each, to facilitate detailed regional analysis. The remaining 8,000 families were drawn from other provinces and weighted to ensure nationwide representativeness. The CFPS employs a multi-stage probability sampling design with implicit stratification, implemented sequentially at the county (or equivalent), village (or equivalent), and household levels, ensuring both cost efficiency and statistical reliability.

Data are collected primarily through computer-assisted personal interviewing (CAPI), supported by the Survey Research Center at the University of Michigan. This approach enables the use of complex, customized survey modules tailored to each household member, reduces measurement error, and improves data quality through real-time monitoring and standardized survey procedures.

In addition to CAPI, the CFPS uses multiple data collection methods, including face-to-face interviews, self-administered questionnaires, and limited web-based surveys. All individuals aged nine and above in sampled households are interviewed, and children are also tracked as core members. Once included, individuals remain in the panel until death, allowing for consistent long-term tracking of life-cycle outcomes.

The CFPS provides rich data widely used by researchers and policymakers to study family structure, inequality, social mobility, demographic change, health, and education, offering valuable insights into China's evolving socioeconomic landscape.

Appendix B Data Variable Description

The table presents the description of variables of China Family Panel Studies (CFPS), China's Yearbook data used in this paper, and the definition of legal binding conditions with respect to additional birth in the period before the introduction of the two-child policy.

Data Variables	Description
CFPS Variables	
Entrepreneur (Indicator)	An indicator variable of whether a surveyed respondent's household includes an entrepreneurial member who reports to be self-employed
Number of Newborns	Number of newborn babies for a surveyed household over the past 2 years.
Log(1+Family Income)	Log of the total income received by all household members from various sources, including wages, agricultural earnings, business revenues, and other income.
Log(Family Size)	Log of the total number of family members in a surveyed household.
Log(1+Education Expenditure)	Log of the value of the amount a surveyed household has spent on child education, including food expense, boarding fee, school bus fee, textbooks, reference books, school supplies, and school activities.
Log(1+Gov Subsidy)	Log of the value of the sum of any government subsidies a surveyed household has received, including minimum living allowance, subsidy for low-income families, reforestation subsidy, agricultural subsidy, work injury subsidy, and disaster relief.
Urban (Indicator)	Indicator variable equal to one if a surveyed household's residence is in an urban area and equal to zero if the residence is in a rural area.
Log(1+Mortgage)	Log of the value of a mortgage in case a surveyed household has a mortgage.
Log(1+Home Ownership Value)	Log of the value of a house in case a surveyed household owns a house, i.e., Log(1+Home Value $\times$ 1(Home Ownership)).

CFPS Variables (Continued)	
Risk category	Revealed risk preference of the highest income earner in a household based on the 2018 CFPS survey, which asks whether the respondent would prefer a fixed amount at various levels or a fair coin toss gamble that would provide 200 RMB if the face is head and nothing if the face is tail. The value of this variable is 1 if the respondent is risk-averse, 2 if risk-neutral, and 3 if risk-seeking.
Subsistence ratio	Share of subsistence expenditure (expenditures on food, clothing, daily necessities, housing, transportation, and communication) relative to total expenditure in the pre-policy period
Entrepreneurial income risk	This variable is constructed based on the proportion of firms that remain in the Bureau van Dijk's Orbis database two years after a given year, aggregated to the industry level. We match industries of entrepreneurs in our dataset using two-digit NAICS codes. High (low) failure rate refers to families in which the entrepreneur operates in an industry with a failure rate above (below) the median industry failure rate.
Number of income earners	A high (low) number of income earners refers to families in which the number of family members earning positive labor income is greater than or equal to (or below) the sample median.
Income concentration	High (Low) income concentration refers to families in which the highest individual income accounts for more than (or at or below) the sample median share of total family income.
Yearbook Variables	
Unemployment Rate	Unemployment rate in a given year at the province level.
GDP Growth Rate	Yearly GDP growth rate at the province level.
Population Growth Rate	Yearly population growth rate.
Binding Conditions	
No-child families	Families that did not have any child before the policy change Thus, these families could deliver a baby during one-child policy
Families with one or more children	Families that already had children before the policy change Thus, these families could not deliver an additional baby during one-child policy

References

Adda, Jérôme, Christian Dustmann, and Katrien Stevens, 2017, The career costs of children, *Journal of Political Economy* 125, 293–337.

Aghion, Philippe, Thibault Fally, and Stefano Scarpetta, 2007, Credit constraints as a barrier to the entry and post-entry growth of firms, *Economic Policy* 22, 732–779.

Appel, Joan Farre-Mensa, Ian, and Elena Simintzi, 2019, Patent trolls and startup employment, *Journal of Financial Economics* 133, 708–725.

Arkhangelsky, Dmitry, Susan Athey, David A. Hirshberg, Guido W. Imbens, and Stefan Wager, 2021, Synthetic difference-in-differences, *American Economic Review* 111, 4088–4118.

Attanasio, Orazio, Hamish Low, and Virginia Sánchez-Marcos, 2008, Explaining changes in female labor supply in a life-cycle model, *American Economic Review* 98, 1517–1552.

Bai, Chong-En, Ruixue Jia, Hongbin Li, and Xin Wang, 2024, Entrepreneurial reluctance: Talent and firm creation in china, *The Economic Journal* ueae094.

Bailey, Martha J, 2006, More power to the pill: The impact of contraceptive freedom on women's life cycle labor supply, *Quarterly Journal of Economics* 121, 289–320.

Bailey, Martha J, Brad Hershbein, and Amalia R Miller, 2012, The opt-in revolution? contraception and the gender gap in wages, *American Economic Journal: Applied Economics* 4, 225–54.

Baker, Scott R., Efraim Benmelech, Zhishu Yang, and Qi Zhang, 2022, Fertility and savings: The effect of china's two-child policy on household savings, *NBER Working Paper* .

Barro, Robert J., and Gary S. Becker, 1989, Fertility choice in a model of economic growth, *Econometrica* 57, 481–501.

Barsky, Robert B, F Thomas Juster, Miles S Kimball, and Matthew D Shapiro, 1997, Preference parameters and behavioral heterogeneity: An experimental approach in the health and retirement study, *The quarterly journal of economics* 112, 537–579.

Bernstein, Shai, Emanuele Colonnelli, Davide Malacrino, and Tim McQuade, 2022, Who creates new firms when local opportunities arise?, *Journal of Financial Economics* 143, 107–130.

Bernstein, Shai, Abhishek Dev, and Josh Lerner, 2020, The creation and evolution of entrepreneurial public markets, *Journal of Financial Economics* 136, 307–329.

Black, Dan A., Seth G. Sanders Natalia Kolesnikova, and Lowell J. Taylor, 2013, Are children "normal"?, *The Review of Economics and Statistics* 95, 21–33.

Black, Sandra E, and Philip E Strahan, 2002, Entrepreneurship and bank credit availability, *The Journal of Finance* 57, 2807–2833.

Bonney, John, Luigi Pistaferri, and Alessandra Voena, 2025, Childbirth and firm performance: Evidence from norwegian entrepreneurs, *NBER Working Paper* .

Cagetti, Marco, and Mariacristina De Nardi, 2006, Entrepreneurship, frictions, and wealth, *Journal of Political Economy* 114, 835–870.

Campbell, John Y, and John H Cochrane, 1999, By force of habit: A consumption-based explanation of aggregate stock market behavior, *Journal of political Economy* 107, 205–251.

Choi, Darwin, Zhenyu Gao, Sing-Sen Lam, Tian Li, and Wenlan Qian Qian, 2024, Scared away: Credit demand response to expected motherhood penalty in the labor market, *Working Paper* .

Choi, Sekyu, 2017, Fertility risk in the life cycle, *International Economic Review* 58, 237–259.

Choukhmane, Taha, Nicolas Couerdacier, and Keyu Jin, 2023, The one-child policy and household saving, *Journal of the European Economic Association* 21, 987–1032.

Cohen, Daniel C Fehder Yael V Hochberg, Susan, and Fiona Murray, 2019, The design of startup accelerators, *Research Policy* 48, 1781–1797.

Colombo, Massimo G., and Evila Piva, 2020, Start-ups launched by recent stem university graduates: The impact of university education on entrepreneurial entry, *Research Policy* 49, 103993.

Core, Fabrizio, and Daniel Karpati, 2025, Self-employed mothers: Child penalties, maternity benefits, and family health, *Working paper* .

Cumming, Fergus, and Lisa Dettling, 2024, Monetary policy and birth rates: The effect of mortgage rate pass-through on fertility, *The Review of Economic Studies* 91, 229–258.

da Fonseca, João Galindo, and Charles Berubé, 2023, Spouses, children, and entrepreneurship, *International Economic Review* 64, 1165–1199.

Decker, Ryan, John Haltiwanger, Ron Jarmin, and Javier Miranda, 2014, The role of entrepreneurship in us job creation and economic dynamism, *Journal of Economic Perspectives* 28, 3–24.

Denes, Matthew, Sabrian T. Howell, Filippo Mezzanotti, Xinxin Wang, and Ting Xu, 2023, Investor tax credits and entrepreneurship: Evidence from u.s. states, *Journal of Finance* 78, 2621–2671.

Doepke, Matthias, Anne Hannusch, Fabian Kindermann, and Michèle Tertilt, 2023, The economics of fertility: A new era, *Handbook of the Economics of the Family* 1, 151–254.

Evans, David S, and Boyan Jovanovic, 1989, An estimated model of entrepreneurial choice under liquidity constraints, *Journal of Political Economy* 97, 808–827.

Gao, Yanyan, and Zhaopeng Qu, 2019, 'more children, more happiness?': New evidence from elderly parents in china, *Global Labor Organization Discussion Paper Series* 366.

Gentry, William M, and R Glenn Hubbard, 2000, Tax policy and entrepreneurial entry, *American Economic Review* 90, 283–287.

Goldin, Claudia, and Lawrence F Katz, 2002, The power of the pill: Oral contraceptives and women's career and marriage decisions, *Journal of Political Economy* 110, 730–770.

Gottlieb, Joshua D, Richard R Townsend, and Ting Xu, 2022, Does career risk deter potential entrepreneurs?, *Review of Financial Studies* 35, 3973–4015.

Guo, Rufei, Hongbin Li, Junjian Yi, and Junsen Zhang, 2018, Fertility, household structure, and parental labor supply: Evidence from china, *Journal of Comparative Economics* 46, 145–156.

Hacamo, Isaac, 2021, The babies of mortgage market deregulation, *Review of Financial Studies* 34,

907–948.

Hamilton, Barton H., 2000, Does entrepreneurship pay? an empirical analysis of the returns to self-employment, *Journal of Political Economy* 108, 604–631.

Heath, Davidson, Matthew C. Ringgenberg, Mehrdad Samadi, and Ingrid M. Werner, 2023, Reusing natural experiments, *The Journal of Finance* 78, 2329–2364.

Herranz, Neus, Stefan Krasa, and Anne P Villamil, 2015, Entrepreneurs, risk aversion, and dynamic firms, *Journal of Political Economy* 123, 1133–1176.

Hincapié, Andrés, 2020, Entrepreneurship over the life cycle: Where are the young entrepreneurs?, *International Economic Review* 61, 617–681.

Huang, Bin, Massimiliano Tani, and Yu Zhu, 2021a, Does higher education make you more entrepreneurial? causal evidence from china, *Journal of Business Research* 135, 543–558.

Huang, Wei, Xiaoyan Lei, and Ang Sun, 2021b, Fertility restrictions and life cycle outcomes: Evidence from the one child policy in china, *Review of Economics and Statistics* 103, 694–710.

Huang, Wei, Yinghao Pan, and Yi Zhou, 2023, One-child policy, marriage distortion, and welfare loss, *Review of Economics and Statistics* .

Hurst, Erik, and Annamaria Lusardi, 2004, Liquidity constraints, household wealth, and entrepreneurship, *Journal of Political Economy* 112, 319–347.

Hvide, Hans K, and Georgios A Panos, 2014, Risk tolerance and entrepreneurship, *Journal of Financial Economics* 111, 200–223.

Jeffers, Jessica S., 2014, The impact of restricting labor mobility on corporate investment and entrepreneurship, *Review of Financial Studies* 37, 1–44.

Jia, Ruixue, Xiaohuan Lan, and Gerard Padró i Miquel, 2021, Doing business in china: Parental background and government intervention determine who owns busines, *Journal of Development Economics* 151.

Kanbur, S.M, 1979, Of risk taking and the personal distribution of income, *Journal of Political Economy* 87, 769–797.

Kerr, William R, and Ramana Nanda, 2009, Democratizing entry: Banking deregulations, financing constraints, and entrepreneurship, *Journal of Financial Economics* 94, 124–149.

Kettlewell, Nathan, 2019, Risk preference dynamics around life events, *Journal of Economic Behavior & Organization* 162, 66–84.

Kihlstrom, Richard E, and Jean-Jacques Laffont, 1979, A general equilibrium entrepreneurial theory of firm formation based on risk aversion, *Journal of Political Economy* 87, 719–748.

Kim, Daisoon, and Minchul Yum, 2025, Parental leave policies, fertility, and labor supply, *Working Paper* .

King, Robert G., and Ross Levine, 1993, Finance and growth: Schumpeter might be right get access arrow, *The Quarterly Journal of Economics* 108, 717–737.

Klapper, Leora, Luc Laeven, and Raghuram Rajan, 2006, Entry regulation as a barrier to entrepreneurship, *Journal of Financial Economics* 82, 591–629.

Kong, Dongmin, and Ni Qin, 2021, China's anticorruption campaign and entrepreneurship, *The Journal of Law and Economics* 64, 153–180.

Lazear, Edward P., 2004, Balanced skills and entrepreneurship, *American Economic Review* 94, 208–211.

Lazear, Edward P., 2005, Entrepreneurship, *Journal of Labor Economics* 23, 649–680.

Li, Defa, 2014, *An Introduction to the Analects* (New World Press).

Li, Lixing, and Xiaoyu Wu, 2014, Housing price and entrepreneurship in china, *Journal of Comparative Economics* 42, 436–449.

Liang, James, Hui Wang, and Edward P. Lazear, 2018, Demographics and entrepreneurship, *Journal of Political Economy* 126, S140 – 196.

Liu, Clark, Johan Sulaeman, Tao Shu, and P Eric Yeung, 2023, Life is too short? bereaved managers and investment decisions, *Review of Finance* 27, 1373–1421.

Lovenheim, Michael F, and Kevin J Mumford, 2013, Do family wealth shocks affect fertility choices? evidence from the housing market, *Review of Economics and Statistics* 95, 464–475.

Lusardi, Annamaria, and Olivia Mitchell, 2011, Financial literacy around the world: An overview., *Journal of Pension Economics and Finance* 10, 497–508.

Ma, L.Y, 2006, The personal image of confucius in the book of rites, *Journal of Education Institute of Taiyuan University* 24, 35–7.

Manso, Gustavo, 2011, Motivating innovation, *Journal of Finance* 66, 1823–1860.

Manso, Gustavo, 2016, Experimentation and the returns to entrepreneurship, *The Review of Financial Studies* 29, 2319–2340.

Manuel, Adelino, Antoinette Schoar, and Felipe Severino, 2015, House prices, collateral, and self-employment, *Journal of Financial Economics* 117, 288–306.

Merida, Adrian L., and Vera Rocha, 2021, It's about time: the timing of entrepreneurial experience and the career dynamics of university graduates, *Research Policy* 50, 1–13.

Oh, Seungjoon, Jaeyoon Lee, and Bong-Geun Choi, 2021, The collateral channel: Dynamic effects of housing market on entrepreneurship, *Economics Letters* 198, 109661.

Ortigueira, Salvador, and Nawid Siassi, 2013, How important is intra-household risk sharing for savings and labor supply?, *Journal of Monetary Economics* 60, 650–666.

Rocha, José María Da, and Luisa Fuster, 2006, Why are fertility rates and female employment ratios positively correlated across o.e.c.d. countries?, *International Economic Review* 47, 1187–1222.

Rosenzweig, Mark R., and Junsen Zhang, 2009, Do population control policies induce more human capital investment? twins, birth weight and china's "one-child" policy, *The Review of Economic Studies* 76, 1149–1174.

Roussanov, Nikolai, and Pavel Savor, 2014, Marriage and managers' attitudes to risk, *Management Science* 60, 2496–2508.

Rutigliano, Valentina, 2025, Minding your business or your child? entrepreneurs, fertility, and firm and worker outcomes, *Working paper* .

Schmalz, Martin C., David Sraer, and David Thesmar, 2017, Housing collateral and entrepreneurship, *Journal of Finance* 72, 99–132.

Schoar, Antoinette, 2010, The divide between subsistence and transformational entrepreneurship, *Innovation policy and the economy* 10, 57–81.

Schumpeter, Joseph A, 2008, *The theory of economic development* (Routledge).

Shore, Stephen H., 2010, For better, for worse: Intrahousehold risk-sharing over the business cycle, *Review of Economics and Statistics* 92, 536–548.

Shu, Haibing, Jagadeesh Sivadasan, Wenjian Xu, and Chenhao Zheng, 2025, Fertility policy and female entrepreneurship: Evidence from the one-child policy in china .

Sommer, Kamila, 2016, Fertility choice in a life cycle model with idiosyncratic uninsurable earnings risk, *Journal of Monetary Economics* 83, 27–38.

Wang, Haomin, 2019, Intra-household risk sharing and job search over the business cycle, *Review of Economic Dynamics* 34, 165–182.

Wang, Ping, Chong K. Yip, and Carol A. Scotese, 1994, Fertility choice and economic growth: Theory and evidence, *The Review of Economics and Statistics* 76, 255–266.

Wei, Shang-Jin, 2015, Freer choice, lower growth, and higher welfare: Recent changes in china's population control policy and the impact on its economy, *Policy Challenges in a Diverging Global Economy* 129.

Wei, Shang-Jin, and Xiaobo Zhang, 2011, Sex ratios, entrepreneurship, and economic growth in the people's republic of china, *NBER Working Paper* .

Xu, Jiashu, and Airan Liu, 2021, Family life and chinese adults' happiness across the life span, *Chinese Journal of Sociology* 7, 514–534.

Yi, Junjian, Junhong Chu, and Ivan PL Png, 2022, Early-life exposure to hardship increased risk tolerance and entrepreneurship in adulthood with gender differences, *Proceedings of the National Academy of Sciences* 119, e2104033119.

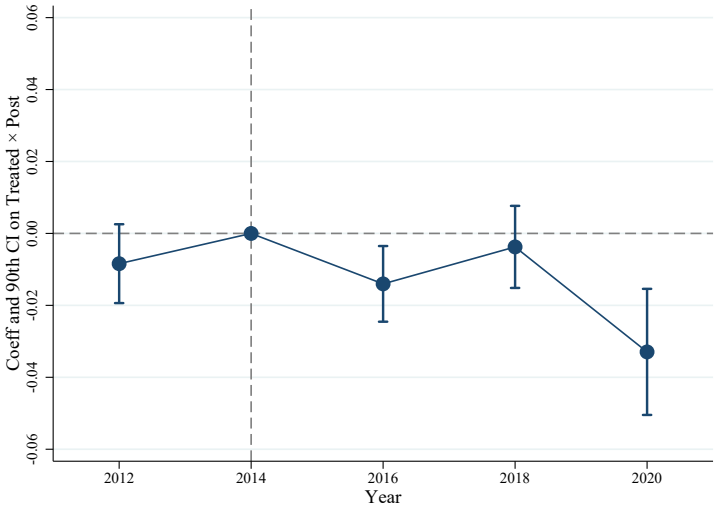
Yu, Sandy, and Lee Fleming, 2022, Regional crowdfunding and high tech entrepreneurship, *Research Policy* 51, 104348.

Zandberg, Jonathan, 2021, Family comes first: Reproductive health and the gender gap in entrepreneurship, *Journal of Financial Economics* 140, 838–864.

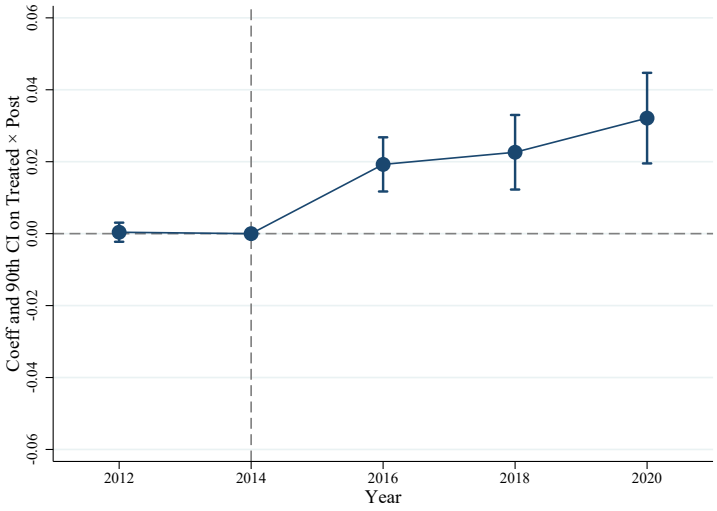
İmrohoroğlu, Ayşe, and Kai Zhao, 2020, Household saving, financial constraints, and the current account in china, *International Economic Review* 61, 71–103.

Figure 1: Dynamic Effects of the Two-Child Policy on Entrepreneurship and Fertility

This figure presents household-level dynamic difference-in-differences (DID) estimates of the two-child policy on entrepreneurship and fertility. Panel A reports estimates using *Entrepreneur* as the dependent variable, defined as an indicator equal to one if a household has an entrepreneur among its members. Panel B reports estimates using *Number of Newborns*, measured as the number of babies born in a surveyed household over the past two years. Each dot represents the point estimate, and the vertical lines denote 95% confidence intervals of the coefficients on *Treated*×1(Year = t). The omitted base year is 2014. The sample consists of 50,934 household-year observations (12,072 unique households) from the CFPS between 2012 and 2020. *Treated* equals one for households with a married woman aged 20–45, and zero otherwise. *Post* equals one in the two-child policy period and zero beforehand. Standard errors are clustered at the household level. Detailed variable definitions are provided in Appendix B.



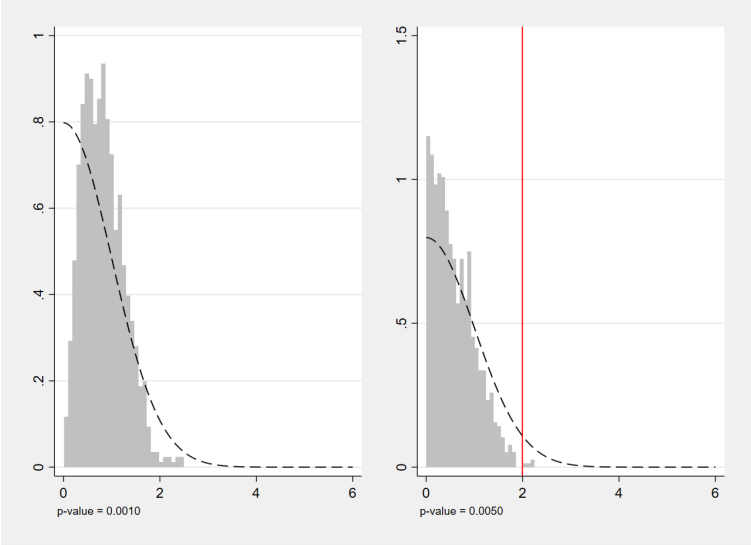
Panel A. Dependent Variable = Entrepreneurship



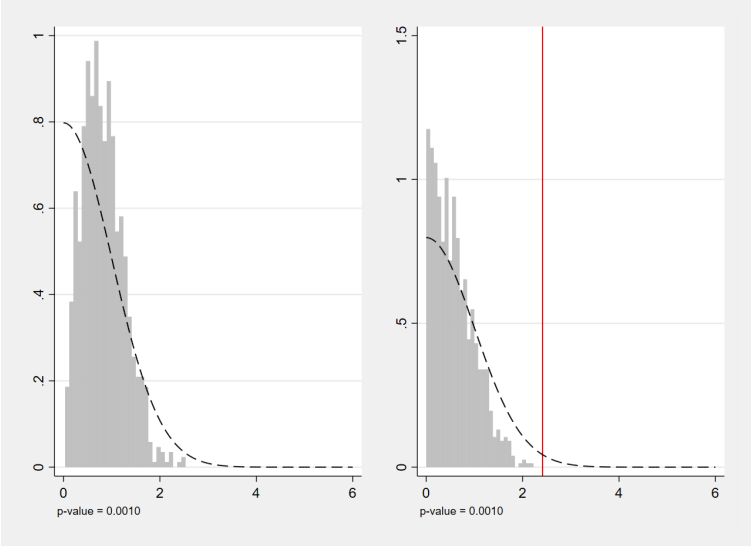
Panel B. Dependent Variable = Number of Newborn

Figure 2: Multiple Hypothesis Testing

This figure shows results on multiple hypothesis testing in which we test for the significance of our baseline estimates on birth dimension and entrepreneurship dimension jointly. It plots estimation coefficients out of 1000 bootstraps. In Panel A, we use household fixed effects, province fixed effects, and year fixed effects. In Panel B, we use household fixed effects, and province-by-year fixed effects. The left graph on each panel is simulated results on the birth choice variable and the right graph on each panel is simulated results on the entrepreneurial choice variable. The sample consists of 50,934 household-year observations (12,072 unique households) from the CFPS between 2012 and 2020.



Panel A. Household, Province, Year FE



Panel B. Household, Province × Year FE

Table 1: Summary Statistics

The table presents summary statistics for our main sample. The sample consists of 50,934 household-year observations (12,072 unique households) from the CFPS database for the sample period from 2012 to 2020. Detailed descriptions of all other variables are available in Appendix B.

	Mean	sd	p25	p50	p75	Obs.
Entrepreneur	0.093	0.291	0.000	0.000	0.000	50,934
Number of New Borns	0.066	0.256	0.000	0.000	0.000	50,934
Log(1+Family Income)	1.693	0.812	1.145	1.722	2.197	50,934
Log(Family Members)	1.185	0.513	0.693	1.099	1.609	50,934
Log(1+Education Expenditure)	0.234	0.360	0.000	0.000	0.392	50,934
Log(1+Gov Subsidy)	0.063	0.154	0.000	0.000	0.058	50,934
Urban (Indicator)	0.464	0.499	0.000	0.000	1.000	50,934
Log(1+Mortgage)	0.103	0.412	0.000	0.000	0.000	50,934
Log(House Ownership Value)	2.147	1.596	0.693	2.398	3.332	50,934
Unemployment Rate (%)	3.257	0.537	2.970	3.300	3.630	50,934
GDP Growth Rate (%)	7.369	2.657	6.100	7.600	8.900	50,934
Population Growth Rate	0.004	0.008	-0.002	0.004	0.008	50,934

Table 2: Baseline Results

The table presents regression results from the linear probability models that examine the effect of China's two-child policy on entrepreneurial choices. The sample consists of 50,934 household-year observations (12,072 unique households) from the CFPS database for the sample period from 2012 to 2020. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. *Treated* is an indicator variable equal to one for households that have a one married woman aged between 20 and 45 years old, and zero for households that do not have a married woman aged between 20 and 45 years old. *Post* is one for household-year observations in the two-child policy period and zero for the pre-two-child policy period. Detailed descriptions of all other variables are available in Appendix B. In Panel A, we estimate the overall effects as well as dynamic effects of the two-child policy on entrepreneurial choices, using the full sample. In Panel Panel B, we separately report the results for families that did not have any child before the policy change and thus were not bound by the one-child policy and families that already had children and could not deliver birth additionally before the policy change and hence were bound by the one-child policy. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A. Baseline Effects

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.009**	-0.011**	
	(0.004)	(0.004)	
Treated × 1(Year = 2012)			-0.008
			(0.006)
Treated × 1(Year = 2016)			-0.014***
			(0.005)
Treated × 1(Year = 2018)			-0.004
			(0.006)
Treated × 1(Year = 2020)			-0.033***
			(0.009)
Log(1+Family Income)	0.063***	0.063***	0.063***
	(0.003)	(0.003)	(0.003)
Log(Family Members)	0.013***	0.014***	0.012***
	(0.004)	(0.004)	(0.004)
Log(1+Education Expenditure)	0.026***	0.026***	0.025***
	(0.005)	(0.005)	(0.005)
Log(1+Gov Subsidy)	-0.011	-0.011	-0.011
	(0.010)	(0.010)	(0.010)
Urban (Indicator)	0.028***	0.027***	0.027***
	(0.005)	(0.005)	(0.005)
Log(1+Mortgage)	0.015***	0.015***	0.015***
	(0.004)	(0.004)	(0.005)
Log(House Ownership Value)	0.002*	0.002**	0.002**
	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.013**		
	(0.005)		
GDP Growth Rate	-0.001		
	(0.001)		
Population Growth Rate	1.029**		
	(0.523)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province × Year fixed effects	No	Yes	Yes
Observations	50,934	50,934	50,934
Adjusted R-squared	0.364	0.365	0.365

Panel B. Binding Conditions

	Entrepreneur					
	No-Child Households (Non-Binding)			Households with Any Children (Binding)		
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × Post	-0.006	-0.007		-0.019**	-0.021**	
	(0.006)	(0.006)		(0.009)	(0.009)	
Treated × 1(Year = 2012)			-0.014			-0.015
			(0.009)			(0.011)
Treated × 1(Year = 2016)			-0.012			-0.022**
			(0.012)			(0.011)
Treated × 1(Year = 2018)			-0.004			-0.007
			(0.010)			(0.011)
Treated × 1(Year = 2020)			-0.030***			-0.072***
			(0.009)			(0.018)
Log(1+Family Income)	0.069***	0.069***	0.069***	0.062***	0.062***	0.062***
	(0.008)	(0.008)	(0.008)	(0.004)	(0.004)	(0.004)
Log(Family Members)	0.018***	0.020***	0.019***	0.013**	0.011*	0.010
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Log(1+Education Expenditure)	0.028***	0.027***	0.026***	0.026***	0.026***	0.025***
	(0.009)	(0.009)	(0.009)	(0.007)	(0.008)	(0.008)
Log(1+Gov Subsidy)	-0.007	-0.005	-0.004	-0.013	-0.018	-0.017
	(0.015)	(0.016)	(0.015)	(0.016)	(0.016)	(0.016)
Urban (Indicator)	0.024**	0.023*	0.023*	0.036***	0.037***	0.036***
	(0.011)	(0.011)	(0.011)	(0.008)	(0.008)	(0.008)
Log(1+Mortgage)	0.021**	0.021**	0.021**	0.015**	0.014**	0.014**
	(0.010)	(0.010)	(0.010)	(0.006)	(0.006)	(0.006)
Log(House Ownership Value)	0.002	0.002	0.002	0.003	0.003	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.017			0.009		
	(0.010)			(0.008)		
GDP Growth Rate	-0.003*			0.003		
	(0.001)			(0.002)		
Population Growth Rate	1.395			-0.280		
	(1.045)			(0.837)		
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	Yes	No	No
Year fixed effects	Yes	No	No	Yes	No	No
Province × Year fixed effects	No	Yes	Yes	No	Yes	Yes
Observations	29,057	29,057	29,057	21,877	21,877	21,877
Adjusted R-squared	0.345	0.346	0.346	0.378	0.379	0.379

Table 3: Validation Test - Birth Choices

This table presents the results of a validation test examining whether our treated group—with stronger biological feasibility for childbirth—had more births than the control group with lower biological feasibility. It reports the estimation results of Equation (12) using the number of newborn babies over the past two years as the outcome variable. The sample consists of 50,934 household-year observations (12,072 unique households) from the CFPS between 2012 and 2020. *Treated* equals one for households with a married woman aged 20–45, and zero otherwise. *Post* equals one in the two-child policy period and zero beforehand. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Number of Newborns		
	(1)	(2)	(3)
Treated × Post	0.028***	0.023***	
	(0.003)	(0.003)	
Treated × 1(Year = 2012)			0.000
			(0.001)
Treated × 1(Year = 2016)			0.019***
			(0.004)
Treated × 1(Year = 2018)			0.023***
			(0.005)
Treated × 1(Year = 2020)			0.032***
			(0.006)
Log(1+Family Income)	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)
Log(Family Members)	0.088***	0.089***	0.090***
	(0.004)	(0.004)	(0.004)
Log(1+Education Expenditure)	-0.049***	-0.049***	-0.049***
	(0.003)	(0.003)	(0.003)
Log(1+Gov Subsidy)	-0.023***	-0.022**	-0.022***
	(0.008)	(0.009)	(0.009)
Urban (Indicator)	0.017***	0.017***	0.017***
	(0.004)	(0.004)	(0.004)
Log(1+Mortgage)	0.016***	0.016***	0.016***
	(0.003)	(0.003)	(0.003)
Log(House Ownership Value)	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.010**		
	(0.004)		
GDP Growth Rate	0.001		
	(0.001)		
Population Growth Rate	0.533		
	(0.382)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province × Year fixed effects	No	Yes	Yes
Observations	50,934	50,934	50,934
Adjusted R-squared	0.066	0.070	0.070

Table 4: Robustness Checks

This table presents several robustness tests, incorporating a different difference-in-differences approach and regression on a matched sample. Panel A reports results from a synthetic difference-in-difference approach in which we regress the outcome variable on control variables, collect residuals, and regress residuals on the main explanatory variables. Panel B reports results of estimation on Equation (12) on the matched sample with similar family characteristics between the treated group and the control group based on the nearest neighbor propensity score matching. Panel C reports results of estimation on Equation (12), using a refined sample, where the new treated group is households with a wife aged 36-45 and the new control group is households with a wife aged 25-35. The main sample consists of 50,934 household-year observations (12,072 unique households), the PSM sample consists of 15,972 household-year observations (3,564 unique households), and the sample with refined definitions of treatment and control groups consists of 12,984 (3,121 unique households) from the CFPS between 2012 and 2020. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. *Treated* equals one if the household has a married woman aged 20–45, and zero otherwise. *Refined Treated* equals one if the household has a married woman aged 35–45, and zero otherwise. *Post* equals one for household-year observations during the two-child policy period, and zero otherwise. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A. Synthetic Difference-in-Differences

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.008**	-0.011**	
	(0.004)	(0.004)	
Treated × 1(Year = 2012)			-0.007
			(0.006)
Treated × 1(Year = 2016)			-0.015***
			(0.005)
Treated × 1(Year = 2018)			-0.005
			(0.006)
Treated × 1(Year = 2020)			-0.029***
			(0.009)
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province × Year fixed effects	No	Yes	Yes
Observations	50,934	50,934	50,934
Adjusted R-squared	0.364	0.365	0.365

Panel B. Propensity Score Matching

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.027***	-0.026***	
	(0.008)	(0.008)	
Treated × 1(Year = 2012)			-0.012
			(0.009)
Treated × 1(Year = 2016)			-0.026***
			(0.009)
Treated × 1(Year = 2018)			-0.019*
			(0.010)
Treated × 1(Year = 2020)			-0.058***
			(0.015)
Log(1+Family Income)	0.055***	0.056***	0.056***
	(0.005)	(0.005)	(0.005)
Log(Family Members)	0.003	0.001	0.001
	(0.007)	(0.007)	(0.007)
Log(1+Education Expenditure)	0.024***	0.023***	0.021**
	(0.008)	(0.008)	(0.008)
Log(1+Gov Subsidy)	0.016	0.019	0.020
	(0.020)	(0.020)	(0.020)
Urban (Indicator)	0.029***	0.028***	0.028***
	(0.009)	(0.009)	(0.009)
Log(1+Mortgage)	0.020**	0.019**	0.019**
	(0.008)	(0.008)	(0.008)
Log(House Ownership Value)	-0.000	-0.000	-0.000
	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.019**		
	(0.008)		
GDP Growth Rate	0.000		
	(0.002)		
Population Growth Rate	2.499***		
	(0.862)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province × Year fixed effects	No	Yes	Yes
Observations	15,972	15,972	15,972
Adjusted R-squared	0.355	0.357	0.357

Panel C. Refinement of Treatment and Control Groups

	Entrepreneur			Number of Newborns		
	(1)	(2)	(3)	(4)	(5)	(6)
Refined Treated × Post	-0.036***	-0.036***		0.118***	0.120***	
	(0.010)	(0.010)		(0.012)	(0.012)	
Refined Treated × 1(Year = 2012)			0.007			0.007
			(0.015)			(0.021)
Refined Treated × 1(Year = 2016)			-0.037***			0.126***
			(0.013)			(0.017)
Refined Treated × 1(Year = 2018)			-0.026*			0.123***
			(0.014)			(0.017)
Refined Treated × 1(Year = 2020)			-0.039*			0.118***
			(0.020)			(0.020)
Log(1+Family Income)	0.074***	0.073***	0.072***	-0.010**	-0.012***	-0.012***
	(0.006)	(0.006)	(0.006)	(0.004)	(0.004)	(0.004)
Log(Family Members)	0.005	0.005	0.005	0.126***	0.131***	0.131***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)
Log(1+Education Expenditure)	0.015*	0.014	0.015	-0.071***	-0.073***	-0.074***
	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)	(0.007)
Log(1+Gov Subsidy)	-0.039*	-0.038*	-0.038*	-0.003	-0.001	-0.001
	(0.021)	(0.021)	(0.021)	(0.022)	(0.022)	(0.022)
Urban (Indicator)	0.042***	0.042***	0.042***	0.033***	0.032***	0.032***
	(0.010)	(0.010)	(0.010)	(0.009)	(0.009)	(0.009)
Log(1+Mortgage)	0.015*	0.015*	0.015*	0.011	0.009	0.009
	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)
Log(House Ownership Value)	-0.001	-0.001	-0.001	-0.000	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.016			0.011		
	(0.011)			(0.011)		
GDP Growth Rate	0.000			0.002		
	(0.003)			(0.002)		
Population Growth Rate	1.342			-1.230		
	(1.174)			(1.049)		
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	Yes	No	No
Year fixed effects	Yes	No	No	Yes	No	No
Province × Year fixed effects	No	Yes	Yes	No	Yes	Yes
Observations	12,984	12,984	12,984	12,984	12,984	12,984
Adjusted R-squared	0.409	0.410	0.409	0.063	0.068	0.067

Table 5: Mechanism Test: Risk Preference

The table presents the results of ordered logit regression using risk category as the outcome variable. The sample consists of 689 unique household observations from the CFPS database in 2018. Based on a survey questionnaire to figure out certainty equivalent, Risk Category is defined as follows: 1 if highest income earner in a family is risk-averse, 2 if risk-neutral, and 3 if risk-seeking. This survey questionnaire is only available in 2018. *New Born in 2018* is an indicator variable that equals one if household had a newborn baby in 2018 survey year and zero otherwise. *Treated* equals one if the household has a married woman aged 20–45, and zero otherwise. Standard errors reported in parentheses are robust and clustered at the province level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Risk Category		
	(1)	(2)	(3)
Treated × New Born in 2018	-1.011*	-1.058*	
	(0.582)	(0.588)	
New Born in 2018	0.215	0.161	
	(0.544)	(0.548)	
Treated	-0.229	-0.124	-0.192
	(0.163)	(0.219)	(0.204)
Log(1+Family Income)		0.216	0.226
		(0.145)	(0.146)
Log(Family Members)		0.014	-0.035
		(0.248)	(0.264)
Log(1+Education Expenditure)		-0.309**	-0.273*
		(0.158)	(0.164)
Log(1+Gov Subsidy)		0.589	0.708
		(0.582)	(0.554)
Urban (Indicator)		-0.165	-0.178
		(0.394)	(0.398)
Log(1+Mortgage)		0.128	0.112
		(0.127)	(0.124)
Log(House Ownership Value)		-0.059*	-0.049
		(0.034)	(0.034)
Unemployment Rate		0.429*	0.385*
		(0.225)	(0.224)
GDP Growth Rate		-0.562***	-0.503***
		(0.138)	(0.131)
Population Growth Rate		31.435	22.780
		(27.453)	(23.237)
Province fixed effects	Yes	Yes	Yes
Observations	689	689	689
Adjusted R-squared	0.038	0.044	0.041

Table 6: Cross-Sectional Test by Son Presence

This table examines the cross-sectional test based on the presence of male children among the selected families that had children before the introduction of the two-child policy. Columns (1) and (2) refer to families with only daughters, and Columns (3) and (4) refer to families with at least one son in the pre-policy period. The sample consists of 21,877 household-year observations (5,176 unique households with children in the pre-policy period) from the CFPS between 2012 and 2020. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. *Treated* equals one for households with a married woman aged 20–45, and zero otherwise. *Post* equals one in the two-child policy period and zero beforehand. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Entrepreneur			
	Households with Only Daughters		Households with At Least One Son	
	(1)	(2)	(3)	(4)
Treated × Post	-0.029**	-0.028**	-0.010	-0.015
	(0.012)	(0.013)	(0.012)	(0.012)
Log(1+Family Income)	0.065***	0.064***	0.058***	0.058***
	(0.006)	(0.006)	(0.006)	(0.006)
Log(Family Members)	0.009	0.009	0.015*	0.013
	(0.010)	(0.010)	(0.009)	(0.009)
Log(1+Education Expenditure)	0.039***	0.037***	0.013	0.013
	(0.011)	(0.011)	(0.010)	(0.010)
Log(1+Gov Subsidy)	-0.011	-0.013	-0.010	-0.018
	(0.024)	(0.023)	(0.021)	(0.021)
Urban (Indicator)	0.028**	0.031***	0.044***	0.044***
	(0.011)	(0.011)	(0.011)	(0.011)
Log(1+Mortgage)	0.023**	0.022**	0.006	0.006
	(0.009)	(0.009)	(0.009)	(0.009)
Log(House Ownership Value)	0.002	0.003	0.003	0.003
	(0.003)	(0.003)	(0.002)	(0.002)
Unemployment Rate	0.005		0.013	
	(0.012)		(0.011)	
GDP Growth Rate	0.002		0.005*	
	(0.003)		(0.003)	
Population Growth Rate	0.394		-0.751	
	(1.125)		(1.235)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	10,573	10,573	11,304	11,304
Adjusted R-squared	0.356	0.358	0.401	0.402

Table 7: Mechanism Test: Subsistence Ratio and Financial Constraint

The table reports regression results from linear probability models examining the impact of China's two-child policy on entrepreneurial decisions, focusing on subsamples defined by the household's subsistence ratio. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. The subsistence ratio is calculated as the share of subsistence expenditure — comprising expenditures on food, clothing, daily necessities, housing, transportation, and communication — relative to total expenditure measured in the pre-policy period. Panel A splits the sample into households with subsistence ratios above or below the provincial median, separately for rural and urban areas. Panel B explores the role of financial constraints by dividing households according to whether their housing wealth is above or below the provincial median, again within rural and urban subsamples. Standard errors, reported in parentheses, are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Subsistence Ratio

	Entrepreneur			
	Households with High Subsistence Ratio		Households with Low Subsistence Ratio	
	(1)	(2)	(3)	(4)
Treated × Post	-0.020***	-0.023***	0.002	0.001
	(0.006)	(0.006)	(0.006)	(0.006)
Log(1+Family Income)	0.060***	0.060***	0.055***	0.055***
	(0.004)	(0.004)	(0.004)	(0.004)
Log(Family Members)	0.009	0.010*	0.021***	0.021***
	(0.006)	(0.006)	(0.006)	(0.006)
Log(1+Education Expenditure)	0.025***	0.024***	0.025***	0.024***
	(0.008)	(0.009)	(0.006)	(0.006)
Log(1+Gov Subsidy)	0.000	0.001	-0.015	-0.016
	(0.015)	(0.015)	(0.012)	(0.012)
Urban (Indicator)	0.037***	0.036***	0.020***	0.020***
	(0.007)	(0.007)	(0.007)	(0.007)
Log(1+Mortgage)	0.018***	0.018***	0.013**	0.013**
	(0.007)	(0.007)	(0.006)	(0.006)
Log(House Ownership Value)	0.000	0.001	0.004**	0.003**
	(0.002)	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.006		0.028***	
	(0.008)		(0.008)	
GDP Growth Rate	0.000		-0.002	
	(0.002)		(0.002)	
Population Growth Rate	0.747		1.377*	
	(0.745)		(0.751)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	25,021	25,021	22,674	22,674
Adjusted R-squared	0.380	0.382	0.348	0.348

Panel B. Subsistence Ratio and Financial Constraint

	Entrepreneur			
	Households with High Subsistence Ratio		Households with Low Subsistence Ratio	
	Housing Assets		Housing Assets	
	(1) Low	(2) High	(3) Low	(4) High
Treated × Post	-0.023***	-0.020	-0.003	-0.007
	(0.008)	(0.012)	(0.008)	(0.012)
Log(1+Family Income)	0.048***	0.065***	0.047***	0.064***
	(0.005)	(0.007)	(0.005)	(0.007)
Log(Family Members)	0.001	0.027**	0.004	0.036***
	(0.008)	(0.012)	(0.007)	(0.012)
Log(1+Education Expenditure)	0.021*	0.009	0.025***	0.029***
	(0.012)	(0.014)	(0.008)	(0.011)
Log(1+Gov Subsidy)	-0.001	0.001	-0.009	-0.015
	(0.019)	(0.034)	(0.014)	(0.024)
Urban (Indicator)	0.027***	0.037***	0.015	0.015
	(0.010)	(0.014)	(0.010)	(0.014)
Log(1+Mortgage)	0.024*	0.016*	0.003	0.011
	(0.013)	(0.009)	(0.013)	(0.008)
Log(House Ownership Value)	-0.007**	0.014*	-0.002	0.023***
	(0.003)	(0.008)	(0.003)	(0.008)
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	No	No	No	No
Year fixed effects	No	No	No	No
Province × Year fixed effects	Yes	Yes	Yes	Yes
Observations	12,793	9,736	11,853	8,564
Adjusted R-squared	0.433	0.411	0.371	0.406

Table 8: Mechanism Test: Entrepreneurial Income Risk

The table presents regression results from the linear probability models that examine the effect of China's two-child policy on entrepreneurial choices, focusing on sub-samples based on uncertainty about career prospects. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. We test the impact of potential childbirth on the likelihood of pursuing entrepreneurship when facing varying degrees of uncertainty in career prospects. After matching the information of the industry in which the family head works in our main dataset with the Orbis dataset and the failure rate of an industry in a given year by computing the fraction of the number of Chinese firms surviving in the subsequent two years, we split the sample into industries with high failure rate, which is above the median industry failure rate, and industries with low failure rate, which is below the median industry failure rate. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Entrepreneur			
	Industry with High Failure Rate		Industry with Low Failure Rate	
	(1)	(2)	(3)	(4)
Treated × Post	-0.071*	-0.081*	0.028	0.018
	(0.043)	(0.048)	(0.029)	(0.032)
Log(1+Family Income)	0.022	0.021	0.049***	0.050***
	(0.028)	(0.030)	(0.018)	(0.019)
Log(Family Members)	0.097	0.102	0.013	0.015
	(0.069)	(0.069)	(0.044)	(0.042)
Log(1+Education Expenditure)	-0.019	-0.013	-0.110**	-0.110**
	(0.060)	(0.061)	(0.048)	(0.051)
Log(1+Gov Subsidy)	0.057	0.135	0.164	0.168
	(0.162)	(0.221)	(0.126)	(0.107)
Urban (Indicator)	0.018	0.017	0.007	0.012
	(0.046)	(0.053)	(0.060)	(0.062)
Log(1+Mortgage)	0.040	0.038	0.051**	0.054**
	(0.035)	(0.033)	(0.026)	(0.027)
Log(House Ownership Value)	0.007	0.009	0.004	0.003
	(0.009)	(0.009)	(0.007)	(0.007)
Unemployment Rate	-0.062		0.112	
	(0.097)		(0.090)	
GDP Growth Rate	-0.018		0.005	
	(0.015)		(0.018)	
Population Growth Rate	-5.050		2.968	
	(7.247)		(5.477)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	939	933	1,177	1,173
Adjusted R-squared	0.375	0.369	0.328	0.320

Table 9: Mechanism Test: Intra-household Risk Sharing

The table presents regression results from the linear probability models that examine the effect of China's two-child policy on entrepreneurial choices, focusing on sub-samples based on intra-household risk sharing. We analyze sub-samples of households in Panel A based on the number of income earners, and in Panel B based on household income concentrations. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. *High (Low) Number of Income Earners* equals one if the number of family members earning positive labor income is greater than (at or below) the sample median, and zero otherwise. *High (Low) Income Concentration* equals one if the highest individual income accounts for more than (at or below) the sample median share of total family income, and zero otherwise. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A. Distribution of Household Income Earners

	Entrepreneur			
	Low Number of Income Earners (Lagged)		High Number of Income Earners (Lagged)	
	(1)	(2)	(3)	(4)
Treated × Post	-0.025***	-0.028***	0.001	-0.003
	(0.008)	(0.008)	(0.011)	(0.012)
Log(1+Family Income)	0.069***	0.070***	0.046***	0.047***
	(0.004)	(0.004)	(0.007)	(0.007)
Log(Family Members)	0.029***	0.028***	0.012	0.012
	(0.006)	(0.006)	(0.010)	(0.010)
Log(1+Education Expenditure)	0.038***	0.039***	0.012	0.010
	(0.008)	(0.008)	(0.013)	(0.013)
Log(1+Gov Subsidy)	-0.022	-0.024*	0.009	0.008
	(0.013)	(0.013)	(0.025)	(0.025)
Urban (Indicator)	0.041***	0.040***	0.029**	0.029***
	(0.007)	(0.007)	(0.011)	(0.011)
Log(1+Mortgage)	0.017**	0.017**	0.024**	0.024**
	(0.007)	(0.007)	(0.011)	(0.012)
Log(House Ownership Value)	0.005***	0.005***	0.001	0.001
	(0.002)	(0.002)	(0.003)	(0.003)
Unemployment Rate	0.018**		-0.005	
	(0.009)		(0.017)	
GDP Growth Rate	-0.001		-0.008*	
	(0.003)		(0.005)	
Population Growth Rate	0.809		3.666**	
	(1.176)		(1.856)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	25,600	25,600	7,302	7,302
Adjusted R-squared	0.375	0.376	0.210	0.213

Panel B. Household Income Concentration

	Entrepreneur			
	High Income Concentration		Low Income Concentration	
	(1)	(2)	(3)	(4)
Treated × Post	-0.010**	-0.012**	0.010	0.007
	(0.005)	(0.005)	(0.014)	(0.014)
Log(1+Family Income)	0.068***	0.069***	0.057***	0.059***
	(0.003)	(0.003)	(0.009)	(0.009)
Log(Family Members)	0.015***	0.016***	0.022*	0.023*
	(0.004)	(0.004)	(0.012)	(0.012)
Log(1+Education Expenditure)	0.029***	0.030***	0.017	0.015
	(0.006)	(0.006)	(0.014)	(0.014)
Log(1+Gov Subsidy)	-0.017*	-0.018*	0.001	-0.002
	(0.010)	(0.010)	(0.031)	(0.030)
Urban (Indicator)	0.031***	0.031***	0.023*	0.022
	(0.006)	(0.006)	(0.014)	(0.014)
Log(1+Mortgage)	0.013***	0.013***	0.015	0.011
	(0.005)	(0.005)	(0.013)	(0.013)
Log(House Ownership Value)	0.003**	0.003**	-0.003	-0.004
	(0.001)	(0.001)	(0.003)	(0.003)
Unemployment Rate	0.019***		-0.032	
	(0.006)		(0.020)	
GDP Growth Rate	-0.001		-0.006	
	(0.001)		(0.006)	
Population Growth Rate	0.869		5.378**	
	(0.608)		(2.643)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	42,245	42,245	4,719	4,719
Adjusted R-squared	0.377	0.378	0.205	0.213

Internet Appendix

Tradeoff between Entrepreneurship and Fertility

IA.1 A Simplified Model for Remark 1

We provide a derivation of the mechanism underlying Remark 1, under the simplifying assumption that households consume a constant proportion of income in each period. This allows us to analytically compare how utility changes with fertility across occupations. Specifically, we show that an increase in fertility n_t reduces the expected utility of entrepreneurship more than that of wage work, due to heightened effective risk aversion near the consumption floor.

Assume households follow a constant saving rule and face either deterministic wage income or stochastic entrepreneurial income. Let the household save a constant share $s \in (0,1)$ of income each period, so consumption is given by

$$c^{(i)}(n) = (1-s) \cdot y^{(i)}, \quad \text{where } i \in \{\text{wage earner}, \text{entrepreneur}\}. \tag{IA.1}$$

Utility is defined over net consumption (above the required consumption threshold $X(n) = X_0 + \psi n$) as

$$u(c,n) = \frac{\left[(1-s)y^{(i)} - X(n)\right]^{1-\rho}}{1-\rho}, \quad \rho > 0. \tag{IA.2}$$

For a wage earner with fixed income $y = w$, utility becomes:

$$u_w(n) = \frac{[(1-s)w - X(n)]^{1-\rho}}{1-\rho}, \tag{IA.3}$$

$$\frac{du_w(n)}{dn} = -\psi \cdot [(1-s)w - X(n)]^{-\rho}. \tag{IA.4}$$

For an entrepreneur, income is stochastic: $y = \mu + \varepsilon$, where $\varepsilon \sim \mathcal{N}(0, \sigma^2)$. Expected utility is:

$$u_e(n) = \mathbb{E}\left[\frac{[(1-s)(\mu+\varepsilon) - X(n)]^{1-\rho}}{1-\rho}\right], \tag{IA.5}$$

and the marginal utility cost of an additional child is:

$$\frac{du_e(n)}{dn} = -\psi \cdot \mathbb{E}\left[((1-s)(\mu+\varepsilon) - X(n))^{-\rho}\right]. \tag{IA.6}$$

Because the function $x \mapsto x^{-\rho}$ is convex for $\rho > 0$, Jensen's inequality implies:

$$\mathbb{E}\left[\psi \cdot ((1-s)(\mu+\varepsilon) - X(n))^{-\rho}\right] > \psi \cdot ((1-s)\mu - X(n))^{-\rho}. \tag{IA.7}$$

Therefore, even if mean entrepreneurial income equals wage income—i.e., $(1-s)\mu = (1-s)w$—we still obtain:

$$\frac{du_e(n)}{dn} = -\psi \cdot \mathbb{E}\left[((1-s)(\mu+\varepsilon) - X(n))^{-\rho}\right] < -\psi \cdot [(1-s)w - X(n)]^{-\rho} = \frac{du_w(n)}{dn}. \tag{10}$$

An increase in fertility causes a larger reduction in expected utility for entrepreneurs than for wage workers. This result arises because income volatility amplifies the disutility associated with higher required consumption, particularly near the subsistence threshold. The derivation formally supports our model's first prediction: households become less likely to pursue entrepreneurship as fertility rises.

The above inequality generally holds due to Jensen's inequality, as the convexity of the marginal utility function implies that income volatility amplifies the disutility of increased fertility. However, this implication may not hold under certain conditions. First, if the expected entrepreneurial income is substantially higher than the wage income, and hence, $(1-s)\mu - X(n) \gg (1-s)w - X(n)$, then the utility gain from higher mean entrepreneurial income may dominate the disutility from volatility. Second, when the household has very low risk aversion (i.e., $\rho \to 0$), the curvature of the utility function diminishes and utility becomes nearly linear, making it less sensitive to income fluctuations. Third, if households have sufficiently high wealth or access to full intra-household risk sharing, they can maintain

consumption well above the subsistence level, thereby reducing the marginal utility cost of increased required consumption. In these cases, fertility may not meaningfully discourage entrepreneurship.

Table IA.1: Effects of Two-Child Policy on Changes in Entrepreneurial Activities

This table presents effects of the two-child policy on changes in entrepreneurial activities as opposed to the status of entrepreneurship. Columns (1) through (3) report the effects on whether households become an entrepreneur, i.e., the outcome variable is an indicator variable equal to one if a household had no self-employed members in the previous survey year, but has at least one household member with self-employment in the current survey year. Columns (4) through (6) report the effects on whether households quit entrepreneurship, i.e., the outcome variable is an indicator variable equal to one if a household had at least one self-employed member in the previous survey year, but no household members with self-employment in the current survey year. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Becoming Entrepreneur			Quitting Entrepreneur		
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × Post	-0.014***	-0.015***		0.011***	0.011***	
	(0.004)	(0.004)		(0.004)	(0.004)	
Treated × 1(Year = 2012)			0.004			-0.009
			(0.006)			(0.006)
Treated × 1(Year = 2016)			-0.014**			0.010*
			(0.005)			(0.005)
Treated × 1(Year = 2018)			-0.007			-0.003
			(0.005)			(0.005)
Treated × 1(Year = 2020)			-0.022***			0.017**
			(0.007)			(0.008)
Log(1+Family Income)	0.042***	0.042***	0.042***	-0.022***	-0.022***	-0.022***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Log(Family Members)	0.006*	0.006*	0.005	-0.007**	-0.006*	-0.005
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Log(1+Education Expenditure)	0.012***	0.012***	0.011***	-0.006	-0.006	-0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Log(1+Gov Subsidy)	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002
	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.008)
Urban (Indicator)	0.015***	0.015***	0.015***	-0.010**	-0.010**	-0.010**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Log(1+Mortgage)	0.014***	0.014***	0.014***	-0.002	-0.003	-0.003
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Log(House Ownership Value)	0.001	0.001	0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.007			-0.007		
	(0.005)			(0.004)		
GDP Growth Rate	-0.002*			0.002**		
	(0.001)			(0.001)		
Population Growth Rate	0.405			-1.267***		
	(0.448)			(0.490)		
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	Yes	No	No
Year fixed effects	Yes	No	No	Yes	No	No
Province × Year fixed effects	No	Yes	Yes	No	Yes	Yes
Observations	50,934	50,934	50,934	50,934	50,934	50,934
Adjusted R-squared	0.025	0.027	0.027	0.042	0.044	0.044

Table IA.2: Descriptive Statistics for Propensity Score-Matched (PSM) Sample in Matching Treatment Probability

This table presents descriptive statistics for the propensity score-matched (PSM) sample in Panel B of Table 4. Panel A shows that the treated group and the control group indicate different characteristics. Then we match their characteristics in one survey period before the two-child policy in the following manner: we select the control sample by estimating the predicted probability of being in the treated group before the two-child policy using the control variables listed in Table 2 and selecting a household in the control group that has the closest propensity score to that of a household in the treatment group, using a caliper of 0.001 without replacement. The PSM sample consists of 3,564 (1,782 households in the treatment group and 1,782 households in the control group) households before the introduction of the two-child policy, and we compare below household-level and province-level characteristics between the treated and control groups in the pre-period. The F-statistic is reported at the bottom and is based upon a Multinomial ANOVA (MANOVA) test.

Panel A. Full Sample in the Pre-period

	Treated (N=9,565)		Control (N=11,203)			
	Mean	Median	Mean	Median	Mean Diff	t-stat
Log(1+Family Income)	1.57	1.58	1.39	1.37	0.19***	19.36
Log(Family Members)	1.45	1.39	1.02	1.10	0.43***	76.83
Log(1+Education Expenditure)	0.24	0.10	0.19	0.00	0.06***	11.91
Log(1+Gov Subsidy)	0.06	0.02	0.06	0.01	0.00	0.14
Urban (Indicator)	0.41	0.00	0.46	0.00	-0.04***	-6.37
Log(1+Mortgage)	0.07	0.00	0.04	0.00	0.03***	6.24
Log(House Ownership Value)	2.08	2.40	1.90	1.95	0.18***	8.83
Unemployment Rate	3.25	3.27	3.33	3.33	-0.08***	-10.01
GDP Growth Rate	9.37	8.90	9.19	8.90	0.19***	7.00
Population Growth Rate	0.00	0.00	0.00	0.00	-0.00	-0.54

Panel B. Propensity Score Matched Sample in the Pre-period

	Treated (N=1,782)		Control (N=1,782)			
	Mean	Median	Mean	Median	Mean Diff	t-stat
Log(1+Family Income)	1.40	1.58	1.38	1.52	0.02	1.43
Log(Family Members)	1.19	1.10	1.19	1.10	-0.00	-0.12
Log(1+Education Expenditure)	0.20	0.00	0.20	0.05	0.01	0.53
Log(1+Gov Subsidy)	0.06	0.02	0.06	0.01	-0.00	-0.15
Urban (Indicator)	0.45	0.00	0.44	0.00	0.01	0.57
Log(1+Mortgage)	0.06	0.00	0.05	0.00	0.00	0.21
Log(House Ownership Value)	2.10	2.30	2.05	2.40	0.04	0.89
Unemployment Rate	3.32	3.34	3.32	3.34	0.00	0.00
GDP Growth Rate	8.14	8.70	8.14	8.70	0.00	0.00
Population Growth Rate	0.00	0.00	0.00	0.00	0.00	0.00
Joint test for the significance of t-values	statistics				F-value	p-value
Lawley-Hotelling trace	0.0008				0.3014	0.98

Table IA.3: Robustness Tests

This table presents various robustness tests, incorporating refinement of the control group, alternative definitions of entrepreneurship, tests on urban areas only, tests for bad controls, tests for industry-by-year fixed effects, focus on male entrepreneurs, and tests for stock market participation. In Panel A, we exclude single-person households from the sample. In Panel B, we apply two alternative definitions of entrepreneurs to select on serious entrepreneurs: whether a household includes an entrepreneur whose income accounts for more than 10 percent of total family income, and whether the household's entrepreneurial business assets exceed the median asset size in the same year-province level. In Panel C, we only focus on households living in urban areas. In Panel D, we test for bad controls by running the baseline Equation (12) without including any control variables. In Panel E, we identify the industry in which the largest income earner in a household works in and include industry-by-year fixed effects. In Panel F, the dependent variable is an indicator for whether the household includes at least one male entrepreneur (i.e., a self-employed male household member). In Panel G, the dependent variable is an indicator for whether the household invests any positive amount in the stock market. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A. Exclusion of Single-person Households

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.008*	-0.010**	
	(0.005)	(0.005)	
Treated × 1(Year == 2012)			-0.007
			(0.006)
Treated × 1(Year == 2016)			-0.010*
			(0.006)
Treated × 1(Year == 2018)			-0.002
			(0.006)
Treated × 1(Year == 2020)			-0.038***
			(0.010)
Log(1+Family Income)	0.070***	0.070***	0.070***
	(0.003)	(0.003)	(0.003)
Log(Family Members)	0.010*	0.011*	0.007
	(0.006)	(0.006)	(0.006)
Log(1+Education Expenditure)	0.024***	0.024***	0.022***
	(0.005)	(0.005)	(0.005)
Log(1+Gov Subsidy)	-0.010	-0.010	-0.009
	(0.010)	(0.010)	(0.010)
Urban (Indicator)	0.031***	0.030***	0.030***
	(0.006)	(0.006)	(0.006)
Log(1+Mortgage)	0.014***	0.014***	0.014***
	(0.005)	(0.005)	(0.005)
Log(House Ownership Value)	0.002	0.002*	0.002*
	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.013**		
	(0.006)		
GDP Growth Rate	-0.001		
	(0.001)		
Population Growth Rate	0.972*		
	(0.547)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province X Year fixed effects	No	Yes	Yes
Observations	46,732	46,732	46,732
Adjusted R-squared	0.380	0.381	0.382

Panel B. Alternative Definitions of Entrepreneurship

	Entrepreneur: Business Income ≥ 10% Family Income			Entrepreneur: Business Assets ≥ Province-Year Median		
	(1)	(2)	(3)	(4)	(5)	(6)
Treated × Post	-0.007*	-0.009**		-0.010***	-0.012***	
	(0.004)	(0.004)		(0.003)	(0.003)	
Treated × 1(Year == 2012)			-0.008			0.001
			(0.005)			(0.005)
Treated × 1(Year == 2016)			-0.011**			-0.008*
			(0.005)			(0.004)
Treated × 1(Year == 2018)			-0.004			-0.009*
			(0.006)			(0.005)
Treated × 1(Year == 2020)			-0.030***			-0.021***
			(0.008)			(0.006)
Log(1+Family Income)	0.062***	0.063***	0.063***	0.056***	0.057***	0.057***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Log(Family Members)	0.009***	0.010***	0.008**	-0.001	-0.001	-0.002
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Log(1+Education Expenditure)	0.025***	0.025***	0.024***	0.029***	0.028***	0.028***
	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)
Log(1+Gov Subsidy)	-0.007	-0.006	-0.005	-0.016**	-0.016**	-0.016**
	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)	(0.007)
Urban (Indicator)	0.021***	0.021***	0.020***	0.013***	0.013***	0.013***
	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)
Log(1+Mortgage)	0.010**	0.010**	0.010**	0.012***	0.012***	0.012***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Log(House Ownership Value)	0.002	0.002*	0.002*	0.001*	0.001*	0.001*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.010**	0.000	0.000	0.004	0.000	0.000
	(0.005)			(0.004)		
GDP Growth Rate	-0.001			-0.002*		
	(0.001)			(0.001)		
Population Growth Rate	0.668			0.733*		
	(0.495)			(0.423)		
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	Yes	No	No
Year fixed effects	Yes	No	No	Yes	No	No
Province × Year fixed effects	No	Yes	Yes	No	Yes	Yes
Observations	50,934	50,934	50,934	50,934	50,934	50,934
Adjusted R-squared	0.352	0.353	0.353	0.283	0.284	0.284

	Entrepreneur: Business Income < 10% Family Income			Entrepreneur: Business Assets < Province-Year Median		
	(7)	(8)	(9)	(10)	(11)	(12)
Treated x Post	-0.003	-0.003*		-0.014***	-0.015***	
	(0.002)	(0.002)		(0.003)	(0.003)	
Treated x 1(Year == 2012)			-0.001			-0.005
			(0.002)			(0.004)
Treated x 1(Year == 2016)			-0.005*			-0.015***
			(0.003)			(0.004)
Treated x 1(Year == 2018)			-0.001			-0.012***
			(0.003)			(0.005)
Treated x 1(Year == 2020)			-0.008*			-0.032***
			(0.004)			(0.007)
Net Family Income	0.012***	0.012***	0.012***	0.064***	0.064***	0.064***
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
Log(Family Members)	0.004**	0.004**	0.004**	0.003	0.004	0.002
	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
Log(1+Education Expenditure)	0.003	0.003	0.003	0.030***	0.029***	0.029***
	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)
Log(1+Gov Subsidy)	-0.005	-0.006	-0.006	-0.020***	-0.020***	-0.020***
	(0.004)	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)
Urban (Indicator)	0.009***	0.009***	0.009***	0.017***	0.017***	0.017***
	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)
Log(1+Mortgage)	0.005**	0.005**	0.005**	0.010**	0.010***	0.010***
	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)
Log(House Ownership Value)	0.001	0.001	0.001	0.002*	0.002*	0.002*
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Unemployment Rate	0.006**			0.007		
	(0.003)			(0.004)		
GDP Growth Rate	0.000			-0.001		
	(0.001)			(0.001)		
Population Growth Rate	0.831***			0.871**		
	(0.269)			(0.423)		
Household fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	Yes	No	No
Year fixed effects	Yes	No	No	Yes	No	No
Province X Year fixed effects	No	Yes	Yes	No	Yes	Yes
Observations	46,433	46,433	46,433	48,617	48,617	48,617
Adjusted R-squared	0.150	0.151	0.151	0.351	0.352	0.352

Panel C. Urban Areas Only

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.012*	-0.015**	
	(0.007)	(0.007)	
Treated × 1(Year == 2012)			0.003
			(0.009)
Treated × 1(Year == 2016)			-0.019**
			(0.009)
Treated × 1(Year == 2018)			0.003
			(0.010)
Treated × 1(Year == 2020)			-0.052***
			(0.019)
Log(1+Family Income)	0.065***	0.066***	0.066***
	(0.005)	(0.005)	(0.005)
Log(Family Members)	0.028***	0.030***	0.027***
	(0.008)	(0.008)	(0.008)
Log(1+Education Expenditure)	0.029***	0.028***	0.025***
	(0.008)	(0.008)	(0.008)
Log(1+Gov Subsidy)	0.002	0.002	0.002
	(0.016)	(0.016)	(0.016)
Log(1+Mortgage)	0.010	0.009	0.009
	(0.006)	(0.006)	(0.006)
Log(House Ownership Value)	0.002	0.003*	0.003*
	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.007		
	(0.010)		
GDP Growth Rate	-0.002		
	(0.002)		
Population Growth Rate	0.648		
	(0.887)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province X Year fixed effects	No	Yes	Yes
Observations	21349	21349	21349
Adjusted R-squared	0.450	0.453	0.453

Panel D. Tests for Bad Controls

	Entrepreneur		Entrepreneur: Business Income $\geq$ 10% Family Income	Entrepreneur: Business Asset $\geq$ Province-Year Median
	(1)	(2)	(3)	(4)
Treated × Post	-0.009**	-0.010**	-0.008*	-0.009***
	(0.004)	(0.004)	(0.004)	(0.003)
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	No	No
Year fixed effects	Yes	No	No	No
Province X Year fixed effects	No	Yes	Yes	Yes
Observations	50,934	50,934	50,934	50,934
Adjusted R-squared	0.341	0.342	0.333	0.259

Panel E. Tests for Industry-by-Year Fixed Effects

	Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.012*		
	(0.007)		
Treated × 1(Year == 2012)		-0.007	-0.006
		(0.010)	(0.010)
Treated × 1(Year == 2016)		-0.024***	-0.028***
		(0.009)	(0.009)
Treated × 1(Year == 2018)		-0.004	-0.006
		(0.010)	(0.010)
Treated × 1(Year == 2020)		-0.012	-0.013
		(0.027)	(0.027)
Log(1+Family Income)	0.055***	0.055***	0.055***
	(0.005)	(0.005)	(0.005)
Log(Family Members)	0.010	0.010	0.009
	(0.008)	(0.008)	(0.008)
Log(1+Education Expenditure)	0.023***	0.022**	0.022**
	(0.009)	(0.009)	(0.009)
Log(1+Gov Subsidy)	-0.032	-0.032	-0.034*
	(0.021)	(0.021)	(0.020)
Urban (Indicator)	0.022**	0.022**	0.025**
	(0.011)	(0.011)	(0.011)
Log(1+Mortgage)	0.010	0.011	0.010
	(0.009)	(0.009)	(0.009)
Log(House Ownership Value)	0.003	0.003	0.003
	(0.002)	(0.002)	(0.002)
Unemployment Rate	0.010	0.009	
	(0.009)	(0.010)	
GDP Growth Rate	-0.002	-0.002	
	(0.002)	(0.002)	
Population Growth Rate	1.587*	1.535*	
	(0.824)	(0.823)	
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	Yes	No
Province × Year fixed effects	No	No	Yes
Industry × Year fixed effects	Yes	Yes	Yes
Observations	16,481	16,481	16,481
Adjusted R-squared	0.479	0.479	0.481

Panel F. Male Entrepreneur

	Male Entrepreneur		
	(1)	(2)	(3)
Treated × Post	-0.003*	-0.004**	
	(0.002)	(0.002)	
Treated × 1(Year == 2012)			-0.003
			(0.002)
Treated × 1(Year == 2016)			-0.005**
			(0.002)
Treated × 1(Year == 2018)			-0.004*
			(0.002)
Treated × 1(Year == 2020)			-0.007
			(0.005)
Log(1+Family Income)	0.015***	0.015***	0.015***
	(0.002)	(0.002)	(0.002)
Log(Family Members)	0.003*	0.003*	0.003*
	(0.002)	(0.002)	(0.002)
Log(1+Education Expenditure)	0.007***	0.007***	0.007***
	(0.002)	(0.002)	(0.002)
Log(1+Gov Subsidy)	-0.002	-0.003	-0.003
	(0.004)	(0.004)	(0.004)
Urban (Indicator)	0.009***	0.008***	0.008***
	(0.002)	(0.002)	(0.002)
Log(1+Mortgage)	0.003	0.003	0.003
	(0.002)	(0.002)	(0.002)
Log(House Ownership Value)	0.000	0.001	0.001
	(0.001)	(0.001)	(0.001)
Unemployment Rate	-0.001		
	(0.002)		
GDP Growth Rate	-0.000		
	(0.001)		
Population Growth Rate	0.191		
	(0.225)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province X Year fixed effects	No	Yes	Yes
Observations	50,663	50,663	50,663
Adjusted R-squared	0.165	0.165	0.165

Panel G. Stock Market Participation

	Stock Market Participation		
	(1)	(2)	(3)
Treated x Post	-0.007**	-0.005	
	(0.003)	(0.003)	
Treated x 1(Year = 2012)			-0.004
			(0.004)
Treated x 1(Year = 2016)			-0.006
			(0.004)
Treated x 1(Year = 2018)			-0.009*
			(0.005)
Treated x 1(Year = 2020)			-0.007
			(0.007)
Net Family Income	0.016***	0.016***	0.016***
	(0.002)	(0.002)	(0.002)
Log(Family Members)	-0.018***	-0.018***	-0.018***
	(0.003)	(0.003)	(0.003)
Log(1+Education Expenditure)	0.009***	0.009***	0.009***
	(0.003)	(0.003)	(0.003)
Log(1+Gov Subsidy)	0.002	0.004	0.004
	(0.007)	(0.007)	(0.007)
Urban (Indicator)	0.003	0.004	0.004
	(0.003)	(0.003)	(0.003)
Log(1+Mortgage)	0.014***	0.014***	0.014***
	(0.003)	(0.003)	(0.003)
Log(House Ownership Value)	0.000	0.000	0.000
	(0.001)	(0.001)	(0.001)
Unemployment Rate	-0.008**		
	(0.004)		
GDP Growth Rate	0.001		
	(0.001)		
Population Growth Rate	-1.175**		
	(0.477)		
Household fixed effects	Yes	Yes	Yes
Province fixed effects	Yes	No	No
Year fixed effects	Yes	No	No
Province X Year fixed effects	No	Yes	Yes
Observations	48,583	48,583	48,583
Adjusted R-squared	0.426	0.428	0.428

Table IA.4: Alternative Hypotheses

"This table reports tests of several alternative hypotheses. Panel A addresses the time-constraint channel by partitioning the sample into households above and below the median family size in 2014, using household size as a proxy for available informal childcare. Panel B examines the maternal job-loss channel by restricting the sample to households where the wife is either self-employed or outside the labor force, thereby excluding wage earners who may be subject to a motherhood penalty in the workplace. Panel C rules out occupational sorting by excluding households whose primary income earner is employed in the civil and public sector, specifically referring to education, health/social security/public welfare, public administration and social organization. The dependent variable is *Entrepreneur*, an indicator variable of whether a household has an entrepreneur among family members. *Treated* equals one if the household has a married woman aged 20–45, and zero otherwise. *Post* equals one for household-year observations during the two-child policy period, and zero otherwise. Standard errors reported in parentheses are robust and clustered at the household level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A. Childcare Time Costs

	Entrepreneur			
	Large Households		Small Households	
	(1)	(2)	(3)	(4)
Treated × Post	-0.010*	-0.012*	-0.015*	-0.018**
	(0.006)	(0.006)	(0.008)	(0.008)
Log(1+Family Income)	0.071***	0.071***	0.065***	0.064***
	(0.004)	(0.004)	(0.006)	(0.006)
Log(Family Members)	0.019***	0.019***	0.009	0.011
	(0.005)	(0.005)	(0.007)	(0.007)
Log(1+Education Expenditure)	0.019***	0.019***	0.036***	0.037***
	(0.006)	(0.006)	(0.010)	(0.010)
Log(1+Gov Subsidy)	-0.020*	-0.021*	0.025	0.026
	(0.012)	(0.012)	(0.016)	(0.016)
Urban (Indicator)	0.032***	0.032***	0.021***	0.020**
	(0.006)	(0.006)	(0.008)	(0.008)
Log(1+Mortgage)	0.018***	0.018***	0.004	0.004
	(0.006)	(0.006)	(0.009)	(0.009)
Log(House Ownership Value)	0.002*	0.003*	0.001	0.001
	(0.001)	(0.001)	(0.002)	(0.002)
Unemployment Rate	0.020***		0.011	
	(0.007)		(0.009)	
GDP Growth Rate	-0.007**		-0.002	
	(0.003)		(0.004)	
Population Growth Rate	0.600		1.586*	
	(0.727)		(0.820)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	30,702	30,702	16,993	16,993
Adjusted R-squared	0.374	0.375	0.344	0.344
p-value for coefficient comparison	(1) and (3) 0.8276	(2) and (4) 0.7952		

Panel B. Wife's Employment Status

	Entrepreneur			
	Non-Wage Earner		Self-Employed	
	(1)	(2)	(3)	(4)
Treated × Post	-0.011**	-0.012**	-0.042*	-0.049**
	(0.005)	(0.005)	(0.022)	(0.023)
Log(1+Family Income)	0.060***	0.060***	0.047***	0.046***
	(0.003)	(0.003)	(0.013)	(0.014)
Log(Family Members)	0.012***	0.012***	0.020	0.024
	(0.004)	(0.004)	(0.026)	(0.027)
Log(1+Education Expenditure)	0.031***	0.031***	0.073***	0.061**
	(0.005)	(0.006)	(0.024)	(0.025)
Log(1+Gov Subsidy)	-0.015	-0.016	0.045	0.076
	(0.011)	(0.011)	(0.063)	(0.064)
Urban (Indicator)	0.029***	0.029***	0.049	0.054
	(0.005)	(0.005)	(0.032)	(0.034)
Log(1+Mortgage)	0.010**	0.010**	0.078***	0.081***
	(0.005)	(0.005)	(0.023)	(0.025)
Log(House Ownership Value)	0.003***	0.003***	0.006	0.006
	(0.001)	(0.001)	(0.006)	(0.006)
Unemployment Rate	0.015**		0.028	
	(0.006)		(0.028)	
GDP Growth Rate	0.000		0.003	
	(0.001)		(0.008)	
Population Growth Rate	0.926		3.399	
	(0.619)		(2.174)	
Household fixed effects	Yes	Yes	Yes	Yes
Province fixed effects	Yes	No	Yes	No
Year fixed effects	Yes	No	Yes	No
Province × Year fixed effects	No	Yes	No	Yes
Observations	40,662	40,662	1,979	1,979
Adjusted R-squared	0.361	0.361	0.402	0.401

Panel C. Occupational Sorting

	Entrepreneur	
	(1)	(2)
Treated × Post	-0.018**	-0.020**
	(0.008)	(0.008)
Log(1+Family Income)	0.054***	0.055***
	(0.006)	(0.006)
Log(Family Members)	0.006	0.005
	(0.009)	(0.009)
Log(1+Education Expenditure)	0.017*	0.015
	(0.010)	(0.010)
Log(1+Gov Subsidy)	-0.030	-0.031
	(0.023)	(0.023)
Urban (Indicator)	0.022*	0.024**
	(0.012)	(0.012)
Log(1+Mortgage)	0.014	0.012
	(0.010)	(0.010)
Log(House Ownership Value)	0.002	0.002
	(0.002)	(0.002)
Unemployment Rate	0.008	
	(0.011)	
GDP Growth Rate	-0.002	
	(0.002)	
Population Growth Rate	1.330	
	(0.895)	
Household fixed effects	Yes	Yes
Province fixed effects	Yes	No
Year fixed effects	No	Yes
Province X Year fixed effects	Yes	Yes
Observations	13,806	13,806
Adjusted R-squared	0.482	0.483