Leadership and Entrepreneurship: Evidence from a Chinese Household Survey

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Abstract

This study investigates the role of leadership in entrepreneurship. Using data from a representative household survey in China, we find that people who demonstrate leadership in their adolescence are more likely to become entrepreneurs. This finding is robust to controlling various sets of control variables and various forms of fixed effects. Better venture performance, rather than more risk seeking, seems to be a potential mechanism through which leadership is related to entrepreneurship.

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1. Introduction

Understanding how to promote entrepreneurship is important, as it is widely regarded as an essential driving engine for economic growth and an important solution to unemployment in developing countries (Li and Wu, 2014). Entrepreneurship usually requires founders to "lead" a team to accomplish specified certain goals. Thus, are people who demonstrate their leadership more likely to become entrepreneurs? Previous literature provides rare empirical evidence regarding the role of leadership in entrepreneurship.

Leadership is defined as "the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organizations of which they are members" (House et al., 1999). Leadership plays a critical role in entrepreneurship as it helps entrepreneurs define the mission of their organizations, set specific goals, and organize and motivate the efforts of their employees (Ensley et al., 2006). Therefore, this study hypothesizes that people who demonstrate leadership have a higher probability of starting businesses than those not.

We examine this hypothesis at household level by using data from the China Family Panel Studies (CFPS), a representative survey of Chinese households (Xie and Hu, 2014). In the 2020 wave of survey, there is a question asking whether respondents are usually followed by or followed their peer when they are 14 years old. Our measure for leadership is whether household heads are usually followed by their peers at the age of fourteen. This measure is a reasonable proxy for leadership as it reflects people's influence on others, which is a key element of leadership.

We find that people who demonstrate leadership in adolescence are more likely to become entrepreneurs than those who do not. This effect is also of considerable economic significance. The estimated marginal effect is between 1%-2%, approximately 10%-20% of the sample mean. Some evidence suggests that this association is likely to be causal. First, our findings are robust to various set of control variables and fixed effects. Second, the likelihood of reverse causality is limited because we measure household heads' leadership when they are 14 years old, long before their engagement in entrepreneurial activities in adulthood.

We test two potential mechanisms through which leadership is related to entrepreneurship. First, leadership can contribute to entrepreneurship success by helping founders define the mission of their organizations, set specific goals, and organize and motivate the efforts of their employees (Ensley et al., 2006). It is likely that people demonstrating leadership will earn more profit from their private business ventures and thus are more likely to start their own business. Our empirical findings show suggestive evidence that household heads demonstrating leadership in adolescence are more likely to earn higher profit from their private business ventures, which is consistent with this venture performance mechanism.

Second, leadership is associated with more risk tolerance (Yukl and Gardner, 2020). Therefore, people demonstrating leadership might be more likely to assume high and undiversified risk in entrepreneurship and thus become entrepreneurs. However, we test whether people demonstrating leadership in adolescence are more risk

tolerant and find no supporting evidence. Therefore, this risk tolerance mechanism seems not to explain that leadership is positively associated with entrepreneurship. To the best of our knowledge, this study is among the first to provide empirical evidence on the positive relation between people's leadership in adolescence and their entrepreneurship in adulthood at the household level. Therefore, this study contributes to the literature on the personal characteristics related to entrepreneurship, including demographics (Liang et al., 2018), loss aversion (Koudstaal et al., 2016), risk tolerance (Djankov et al., 2006; Hvide and Panos, 2014), and overconfidence (Koellinger et al., 2007), and big five personality traits (Zhao and Seibert, 2006).

Our research is also broadly related to the extant literature on other determinants of entrepreneurship. Besides profits earned in their own business, nonpecuniary benefits, such as being one's own boss and having flexibility of hours, motivate entrepreneurship (Hamilton, 2000; Moskowitz and Vissing-Jørgensen, 2002; Hurst and Pugsley, 2011; Jones and Pratap, 2020). It is well documented in the theoretical literature that borrowing constraint can impede entrepreneurship (Cagetti and De Nardi, 2006). Thus, entrepreneurship can be affected by factors that relate to borrowing constraints, such as credit accessibility (Ma et al., 2019), wealth (Evans and Jovanovic, 1989; Paulson and Townsend, 2004), housing collateral (Schmalz et al., 2017; Fan et al., 2022), and housing price (Li and Wu, 2014). There is also evidence that reducing the cost of entrepreneurship failure, unemployment, or firm entry can increase entrepreneurship. Researchers demonstrate that options to return to paid employment (Catherine, 2022), longer job-protected leave (Gottlieb et al., 2022), unemployment insurance (Hombert et al., 2020), and releasing government regulation on firm creation can speed up entrepreneurship. It is also argued that gig economy (Barrios et al., 2022), entitling land rights to households (Bu and Liao, 2022), digital finance (Zhang and Wei, 2023), and transportation infrastructure (Ma et al., 2021) can increase entrepreneurship.

Our research is also related to the large literature that investigates the role of individuals' experience in household economic activities. Past experiences can result in sustained beliefs and social outcomes (Hoff and Stiglitz, 2016). Previous literature has documented that kindergarten experience (Chetty et al., 2011), military experience (Law and Mills, 2017; Malmendier et al., 2011), and experience of natural disasters (Bernile et al., 2017; Feng and Johansson, 2018; Gao et al., 2020) can be related to various social outcomes. Our paper contributes to this literature by documenting that demonstrating leadership in adolescence can potentially be important in determining social outcomes.

The rest of the paper proceeds as follows. Section 2 describes the data. Section 3 reports the main results and discusses possible mechanisms. Section 4 concludes.

2. Data

The data are collected from CFPS, a representative household survey conducted by the Institute of Social Science Survey (ISSS) of Peking University. The data include six waves of survey (conducted in 2010, 2012, 2014, 2016, 2018, 2020) that comprises families from 25 provinces in China. Our data contain detailed information of demographic information, personal characteristics, and economic activities.

The core explanatory variable Leadership14 is constructed from the answer to the question, "When you were 14 years old, which of the following descriptions best described you when playing with other children?". 1. Other people usually follow me; 2. I usually follow other people; 3. Sometimes I follow others, sometimes others follow me. This question is in the 2020 wave of survey. We define Leadership14, as an indicator variable for household heads whose answer is "Most of the time everyone followed me". This measure is a reasonable proxy for leadership as it measures the influence of household heads on other people, which is a key element in leadership.

As in Ma et al. (2021), we construct the proxy for entrepreneurship from the answer to the question, "Does someone in your family own a private enterprise or being self-employed?". We define *Entrepreneur* as the indicator variable which takes the value of one if the answer to the question is "Yes" and zero if the answer is "No". The question is included in the 2012, 2014, 2016, 2018, 2020 survey.

The control variables include demographics of household heads and household characteristics (all time-varying variables are 1-period lagged), including gender (*Male*), age (*Age*), education (*Undergraduate* [undergraduate or higher], *Highschool*, *JuniorCollege*, and *MiddleSchool*), marriage (*Married*), number of people in the family (*Familysize)*, the family's net assets (*NetAsset*) and annual income (*Income*), and whether the family lives in urban areas (*Urban*), and dummy variables for provinces and years. To address the concern that previous entrepreneurship might affect future decision, we also control for lagged entrepreneurship. Therefore, we exclude the data in the year 2012 and use data of 4 remaining surveys (2014, 2016, 2018, 2020).

To test whether demonstrating leadership is associated with more profitability, we construct two measures for profitability of venture businesses. A question asks for the profit or loss that the households owning private businesses obtain from their own businesses in the past 12 months. We construct *Profit* as the answer to this question. However, respondents might forget the exact number of earning or loss or deliberately report a wrong number. Therefore, this measure is subject to measurement errors and outliers and therefore makes the regression coefficient estimates potentially imprecise. To address this concern, we compute another measure for profitability of venture business, *HighProfit*, as a dummy variable for families whose business's profit is above the sample median of the given year.

We also construct three measures for risk tolerance, including an ordered variable that takes the value of 3, 2, 1, and 0 if the family's risk attitude in investing is "high

risk and high return," "median risk and return," "low risk and low return," or "no risk taking", respectively (*RiskTolerance*); whether the family owns any stocks (*HoldStock*) or any stocks or funds (*HoldRiskyAsset*).

Our sample include all the observations when the primary explanatory variable and the dependent variable have non-missing value. We exclude observations in which household head is older than 65 years or with negative asset value. The primary sample used in our baseline regressions include 26,553 observations, comprising of 8,859 families and 4 periods (2014, 2016, 2018, 2020). To address the concern that outliers in explanatory variables can bias our estimation results, we winsorize all continuous variables at 1% and 99% level. Since only in 2014 did the survey ask questions from which we construct our measures of risk tolerance, these measures are available only in 2014. Besides, the two measures for entrepreneurship profitability are only available for households participating in entrepreneurial activities in the given year.

The descriptive statistics are presented in Table 1. 10.7% of the sample households own a private enterprise or being self-employed in the surveyed year. 12.5% of the household heads claim leadership (most of the time their peer followed them when they were 14 years old). 73.8% of the household heads are male. The average age of them is 46 years old. Less than 30% of the heads have high school or higher education. 90% are married. An average family has 3.863 people. The median net asset and annual income are CNY 228,987.5 and CNY 48,870. 3.1% of families hold stocks and 5.1% of them hold stocks or mutual funds. The median profit of entrepreneurs is CNY 30,000.

Table 1: Descriptive statistics

	N	Mean	Std	Min	Median	Max
Entrepreneur	26,553	0.107	0.309	0	0	1
Leadership14	26,553	0.125	0.330	0	0	1
Male	26,553	0.738	0.440	0	1	1
Age	26,553	46.204	11.277	21	47	65
Undergraduate	21,494	0.048	0.214	0	0	1
Highschool	21,494	0.170	0.376	0	0	1
JuniorCollege	21,494	0.059	0.235	0	0	1
MiddleSchool	21,494	0.334	0.472	0	0	1
Married	21,867	0.892	0.310	0	1	1
FamilySize	22,472	3.863	1.700	1	4	9
NetAsset(1,000)	21,737	486.799	793.345	4.500	228.988	5,220.168
Income(1,000)	21,644	65.423	65.563	1.000	48.87	400.000
Urban	25,954	0.506	0.500	0	1	1
RiskTolerance	1,481	1.076	0.951	0	1	3
Holdstock	5,865	0.037	0.188	0	0	1
HoldRiskyAsset	5,865	0.051	0.220	0	0	1
Profit(1,000)	2,709	51.421	78.764	-150	30	500
HighProfit	2,709	0.440	0.496	0	0	1

Notes: All continuous variables are winsorized at 1% and 99% level.

3. Main Results

3.1   Baseline Regressions

First, we test the hypothesis that demonstrating leadership in adolescence is positively associated with the likelihood of becoming entrepreneurs by estimating the following probit model.

$$Entrepreneur_{it} = \phi(\alpha + \beta \times Leadership14_i + Controls_{it}) \qquad (1)$$

where ϕ denotes the accumulative probability of the normal distribution. To address the possible time-series correlation among the observations within the same household, we compute robust standard error clustered at the household level. We expect that β is positive if household heads demonstrating leadership in adolescence are positively associated with the probability of the households participating in entrepreneurial activities.

Table 2 presents the estimated coefficients of model (1). In Column (1), we only include year dummies as the control variables. In Column (2), we include characteristics of household heads and the families at the right-hand side, to control for the possible confounding effect of these characteristics. An indicator variable for urban area is included to control for systematic differences between urban and rural areas. We also include province dummies to control for the systematic differences among provinces. In Column (3), we further control for lagged entrepreneurship to address the possibility that the decision of participating in entrepreneurial activities is related to whether the households have already owned private businesses in the past.

The estimated coefficients in all the three specifications are significantly positive at least at 5% level, which is consistent with our hypothesis that people who demonstrate leadership in adolescence are more likely to own private business. This effect is also of considerable economic magnitude. As presented in Table 2, the marginal effect of leadership is between 1.06 and 2.19 percentage points, depending on specification, which is approximately 10%-20% of the sample mean of the dependent variable.

Table 2: Leadership and entrepreneurship: baseline results

	(1)	**(2)**	**(3)**
	Probit	**Probit**	**Probit**
	Entrepreneur	*Entrepreneur*	*Entrepreneur*
Leadership14	0.116***	0.130***	0.086**
	(2.657)	(2.620)	(2.112)
LagEntrepreneur			1.810***
			(46.574)
Male		0.189***	0.123***
		(4.789)	(3.664)
Age		-0.014***	-0.010***
		(-8.540)	(-7.437)
Undergraduate		-0.501***	-0.204**
		(-4.969)	(-2.411)
HighSchool		0.164***	0.148***
		(3.180)	(3.501)
JuniorCollege		-0.122	-0.008
		(-1.572)	(-0.115)
MiddleSchool		0.195***	0.146***
		(4.723)	(4.227)
Married		0.060	-0.008
		(0.984)	(-0.154)
Ln(FamilySize)		0.151***	0.143***
		(3.778)	(4.005)
Ln(NetAsset)		0.220***	0.101***
		(12.540)	(6.161)
Ln(Income)		0.097***	-0.001
		(5.249)	(-0.033)
Urban		0.241***	0.169***
		(6.065)	(5.281)
Marginal Effects	2.14%	2.19%	1.06%
Province Dummies		YES	YES
Year Dummies	YES	YES	YES
Observations	26,553	19,943	19,943
Pseudo R-squared	0.001	0.092	0.317

Notes: T-statistics are reported in parenthesis. Standard errors are clustered at the household level. All continuous variables are winsorized at 1% and 99% level. Marginal Effects are computed when each of the explanatory variables is at its mean value. ***, **, * denote significance at 1%, 5%, and 10%.

We further include various sets of dummies (e.g., province*year dummies, province*year*urban dummies) at the right-hand side to control for more confounding covariates possibly related to both leadership and entrepreneurship decision. Since we include many dummy variables, we employ linear probability model instead of probit model.

Table 3: Leadership and entrepreneurship: controlling for fixed effects

	(1)	**(2)**	**(3)**
	OLS	**OLS**	**OLS**
	Entrepreneur	*Entrepreneur*	*Entrepreneur*
Leadership14	0.012**	0.011**	0.011**
	(2.070)	(1.974)	(1.964)
LagEntrepreneur	0.535***	0.536***	0.535***
	(44.191)	(44.430)	(44.351)
Male	0.016***	0.015***	0.016***
	(4.062)	(3.968)	(4.067)
Age	-0.001***	-0.001***	-0.001***
	(-6.848)	(-6.838)	(-6.839)
Undergraduate	-0.025***	-0.025***	-0.026***
	(-2.641)	(-2.686)	(-2.809)
HighSchool	0.017***	0.017***	0.015***
	(2.957)	(2.845)	(2.627)
JuniorCollege	-0.001	-0.001	-0.003
	(-0.168)	(-0.123)	(-0.286)
MiddleSchool	0.018***	0.017***	0.017***
	(4.195)	(4.154)	(4.091)
Married	0.000	0.000	-0.001
	(0.044)	(0.029)	(-0.257)
Ln(FamilySize)	0.014***	0.013***	0.013***
	(3.215)	(3.156)	(3.130)
Ln(Netasset)	0.012***	0.012***	0.012***
	(6.421)	(6.331)	(6.220)
Ln(Income)	-0.001	-0.001	-0.001
	(-0.513)	(-0.361)	(-0.335)
Urban	0.023***	0.022***	
	(5.355)	(5.240)	
Fix Effects Controlled	Province, Year	Province*Year	Urban*Province *Year
Observations	19,942	19,935	19,933
R-squared	0.326	0.329	0.334

Notes: T-statistics are reported in parenthesis. Standard errors are clustered at the household level. All continuous variables are winsorized at 1% and 99% level. ***, **, * denote significance at 1%, 5%, and 10%.

$$Entrepreneur_{it} = \beta * Leadership14_i + Controls_{it} + FEs + \varepsilon_{it} \qquad (2)$$

We also compute robust standard errors clustered at household level.

The results are presented in Table 3. The estimated coefficients of childhood leadership in all three specifications are around 0.011, depending on the fixed effects controlled in regressions, significant at 5% level. The marginal effect is around 1.1 percentage points, the magnitude of which is comparable to the results estimated in Table 2. Therefore, our baseline result is robust to controlling for various sets of fixed effects.

3.2 Potential Mechanism

In this subsection, we explore the mechanism through which demonstrating leadership in adolescence is associated with the likelihood of being entrepreneurs. We test two possible mechanisms.

First, demonstrating leadership is associated with better performance of business venture (Ensley et al., 2006). Therefore, people with higher leadership are more motivated to participate in entrepreneurial activities. We test this venture performance mechanism by investigating whether demonstrating leadership is positively associated with the profitability of private business venture by estimating the following model:

$$Profitability_i = \alpha + \beta \times Leadership14_i + Controls_i + \varepsilon_i \qquad (3)$$

The results are presented in Table 4. In Column (1) and Column (2), when running OLS regressions with Profit as the dependent variable, we show that the coefficients of leadership are insignificant, with t-statistics of approximately 1.30. The insignificance is possibly due to the small sample size and potentially large measurement errors in dependent variables. In Column (3) and Column (4), when using *HighProfit* as the dependent variable, we show that the coefficients are significantly positive at the 10% level. Therefore, leadership is marginally significantly related to the profitability of owning private businesses, consistent with the venture performance mechanism.

Table 4: Leadership and profitability of venture

	(1)	(2)	(3)	(4)
	OLS	OLS	Probit	Probit
	Profit	*Profit*	*HighProfit*	*HighProfit*
Leadership14	6.191	6.185	0.167*	0.167*
	(1.307)	(1.303)	(1.694)	(1.690)
LagEntrepreneur		0.375		0.025
		(0.117)		(0.381)
Male	3.450	3.434	0.174**	0.173**
	(0.810)	(0.805)	(2.074)	(2.058)
Age	-0.921***	-0.921***	-0.021***	-0.021***
	(-5.584)	(-5.586)	(-5.832)	(-5.839)
Undergraduate	54.492***	54.526***	0.350	0.352*
	(2.751)	(2.755)	(1.640)	(1.646)
HighSchool	-1.599	-1.599	0.151	0.151
	(-0.355)	(-0.355)	(1.544)	(1.543)
JuniorCollege	1.097	1.098	-0.058	-0.057
	(0.116)	(0.116)	(-0.347)	(-0.345)
MiddleSchool	-2.205	-2.223	0.118	0.116
	(-0.651)	(-0.650)	(1.393)	(1.381)
Married	10.434	10.374	0.345**	0.340**
	(1.408)	(1.415)	(2.389)	(2.357)
Ln(FamilySize)	-14.036***	-14.021***	-0.185**	-0.185**
	(-2.940)	(-2.931)	(-2.152)	(-2.142)
Ln(NetAsset)	7.741***	7.710***	0.165***	0.162***
	(3.967)	(3.981)	(4.564)	(4.416)
Ln(Income)	12.278***	12.251***	0.305***	0.303***
	(6.542)	(6.415)	(6.965)	(6.930)
Urban	0.968	0.945	0.121	0.119
	(0.302)	(0.292)	(1.576)	(1.550)
Province Dummies	YES	YES	YES	YES
Year Dummies	YES	YES	YES	YES
Observations	2,029	2,029	2,029	2,029
R-squared	0.220	0.220	N/A	N/A
Pseudo R-squared	N/A	N/A	0.143	0.143

Notes: T-statistics are reported in parenthesis. Standard errors are clustered at the household level. All continuous variables are winsorized at 1% and 99% level. ***, **, * denote significance at 1%, 5%, and 10%.

Second, since entrepreneurship is associated with high and undiversifiable risk, more risk tolerant individuals are more likely to become entrepreneurs (Hvide and Panos., 2014). Leadership is usually related to risk-taking: a leader "is willing to take personal risks and actions to accomplish mission or achieve the vision" (Yukl and Gardner, 2020). If this risk tolerance mechanism explains our main results, people who demonstrate leadership in adolescence are more likely to be more risk-seeking.

Table 5: Leadership and risk tolerance

	(1)	**(2)**	**(3)**
	RiskTolerance	***HoldStock***	***HoldRiskyAsset***
Leadership14	-0.113	0.084	0.014
	(-1.066)	(0.721)	(0.123)
LagEntrepreneur	0.142	-0.272*	-0.283**
	(1.431)	(-1.925)	(-2.034)
Male	0.141*	-0.047	-0.152*
	(1.899)	(-0.478)	(-1.722)
Age	-0.022***	0.010**	0.012***
	(-6.194)	(2.256)	(2.901)
Undergraduate	0.501***	1.002***	1.143***
	(3.567)	(5.398)	(6.853)
HighSchool	0.232**	0.558***	0.552***
	(2.143)	(4.263)	(4.638)
JuniorCollege	0.459***	1.028***	1.094***
	(3.707)	(6.453)	(7.525)
MiddleSchool	0.112	0.288**	0.265**
	(1.056)	(2.232)	(2.280)
Married	0.296**	0.043	0.052
	(2.354)	(0.246)	(0.323)
Ln(FamilySize)	-0.136	-0.279**	-0.283**
	(-1.366)	(-2.262)	(-2.484)
Ln(NetAsset)	0.094***	0.196***	0.250***
	(2.956)	(4.252)	(5.219)
Ln(Income)	0.068*	0.200***	0.185***
	(1.727)	(3.823)	(3.434)
Urban	-0.024	0.666***	0.696***
	(-0.165)	(5.690)	(6.431)
Province Dummies	YES	YES	YES
Observations	1,143	4,512	4,512
Pseudo R-squared	0.068	0.326	0.356

Notes: T-statistics are reported in parenthesis. Standard errors are clustered at the household level. All continuous variables are winsorized at 1% and 99% level. ***, **, * denote significance at 1%, 5%, and 10%.

We test this risk tolerance mechanism by estimating the following model:

$$RiskTolerance_i = \alpha + \beta \times Leadership14_i + Controls_i + \varepsilon_i \qquad (4)$$

In Table 5, we present the regressions that explore how leadership of household heads is related to three proxies of risk tolerance, respectively. In Column (1), we present results of an ordered probit regression when using *RiskTolerance* as the dependent variable. The coefficient of childhood leadership is not significantly different from zero. In Column (2) and Column (3), we run probit regressions with *HoldStock* and *HoldRiskyAsset* as the proxies for risk tolerance and find similarly insignificant results. These results suggest no evidence that people who demonstrate leadership are more risk tolerant, inconsistent with the risk tolerance mechanism.

To conclude, better performance in venture businesses, rather than more risk tolerance, is more likely to be a mechanism through which leadership is associated with entrepreneurship.

4. Conclusion

Understanding the determinants of entrepreneurship is essential for both policymakers and researchers, especially in emerging markets. Since entrepreneurship usually requires founders to "lead" a team to accomplish the goals, we hypothesize that people demonstrating leadership are more likely to participate in entrepreneurial activities.

We test this hypothesis by using the data from a representative household survey in China. We find that people demonstrating leadership, compared to those who not, are more likely to become entrepreneurs. This association is likely to be causal: first, our results are robust to various sets of controls and hence the likelihood of omitted variables is limited; second, we measure leadership for household heads in adolescence, far before the choice of becoming entrepreneurs, and thus it is unlikely that our finding is driven by reverse causality. The effect is 10%-20% of the sample mean of the dependent variable, which is of significant economic magnitude.

We test the potential mechanisms through which leadership is related to entrepreneurship. We find that people demonstrating leadership in adolescence earn more profit from their venture business, but no evidence that such people are more risk tolerant. Therefore, better venture performance, rather than more risk seeking, seems to be a potential mechanism through which leadership is related to entrepreneurship.

Our findings highlight the critical role of leadership in promoting entrepreneurial activities. As policymakers around the world try to encourage entrepreneurship to boost economic growth and reduce unemployment, this study may provide valuable insights for them. For example, because of the important role of leadership, it might be beneficial to provide more resource to individuals with higher leadership to promote entrepreneurship.

This study shows that people who demonstrate leadership in adolescence are more

likely to become entrepreneurs. Further findings show that better performance of venture businesses, rather than more risk seeking, seems to be a potential mechanism through which leadership is related to entrepreneurship. Our findings highlight the critical role of people's leadership in promoting entrepreneurial activities and provide valuable insights for policymakers. For example, it might be beneficial to provide more resources to individuals with leadership as they are more likely to start ventures.

References

[1] Barrios, J. M., Hochberg, Y. V., and Yi, H. (2022). Launching with a parachute: The gig economy and new business formation. Journal of Financial Economics, 144, 1, pp. 22-43.

[2] Bernile, G., Bhagwat, V., and Rau, P. R. (2017). What doesn't kill you will only make you more risk-loving: Early-life disasters and CEO behavior. Journal of Finance, 72, 1, pp. 167-206.

[3] Bu, D., and Liao, Y. (2022). Land property rights and rural enterprise growth: Evidence from land titling reform in China. Journal of Development Economics, 157, 102853.

[4] Cagetti, M., and De Nardi, M. (2006). Entrepreneurship, frictions, and wealth. Journal of Political Economy, 114, 5, pp. 835-870.

[5] Catherine, S. (2022). Keeping options open: What motivates entrepreneurs?. Journal of Financial Economics, 144, 1, pp. 1-21.

[6] Chetty, R., Friedman, J. N., Hilger, N., Saez, E., Schanzenbach, D. W., and Yagan, D. (2011). How does your kindergarten classroom affect your earnings? Evidence from Project STAR. Quarterly Journal of Economics, 126, 4, pp. 1593-1660.

[7] Djankov, S., Qian, Y., Roland, G., and Zhuravskaya, E. (2006). Who are China's entrepreneurs?. American Economic Review, 96, 2, pp. 348-352.

[8] Ensley, M. D., Pearce, C. L., and Hmieleski, K. M. (2006). The moderating effect of environmental dynamism on the relationship between entrepreneur leadership behavior and new venture performance. Journal of Business Venturing, 21, 2, pp. 243-263.

[9] Evans, D. S., and Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. Journal of Political Economy, 97, 4, pp. 808-827.

[10] Fan, G. Z., Li, H., Li, J., Zhang, J. (2022). Housing property rights, collateral, and entrepreneurship: Evidence from China. Journal of Banking and Finance, 143, 106588.

[11] Feng, X., Johansson, A. C. (2018). Living through the Great Chinese Famine: Early-life experiences and managerial decisions. Journal of Corporate Finance, 48, pp. 638-657.

[12] Gao, M., Liu, Y. J., and Shi, Y. (2020). Do people feel less at risk? Evidence from disaster experience. Journal of Financial Economics, 138, 3, pp. 866-888.

[13] Gottlieb, J. D., Townsend, R. R., and Xu, T. (2022). Does career risk deter potential entrepreneurs?. Review of Financial Studies, 35, 9, pp. 3973-4015.

[14] Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns to self-employment. Journal of Political Economy, 108, 3, pp. 604-631.

[15] Hoff, K., and Stiglitz, J. E. (2016). Striving for balance in economics: Towards a theory of the social determination of behavior. Journal of Economic Behavior and Organization, 126, 25-57.

[16] Hombert, J., Schoar, A., Sraer, D., and Thesmar, D. (2020). Can unemployment insurance spur entrepreneurial activity? Evidence from France. Journal of Finance, 75, 3, pp. 1247-1285.

[17] House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, and M., Gupta, V. (1999). Cultural influences on leadership and organizations: Project GLOBE. Advances in global leadership, 1.

[18] Hvide, H. K., and Panos, G. A. (2014). Risk tolerance and entrepreneurship. Journal of Financial Economics, 111, 1, pp. 200-223.

[19] Hurst, E., Pugsley, B. W. (2011). What do small businesses do? NBER Working Paper W17041

[20] Jones, J. B., and Pratap, S. (2020). An estimated structural model of entrepreneurial behavior. American Economic Review, 110, 9, pp. 2859-2898.

[21] Koellinger, P., Minniti, M., and Schade, C. (2007). "I think I can, I think I can": Overconfidence and entrepreneurial behavior. Journal of Economic Psychology, 28, 4, pp. 502-527.

[22] Koudstaal, M., Sloof, R., and Van Praag, M. (2016). Risk, uncertainty, and entrepreneurship: Evidence from a lab-in-the-field experiment. Management Science, 62, 10, pp. 2897-2915.

[23] Law, K. K., and Mills, L. F. (2017). Military experience and corporate tax avoidance. Review of Accounting Studies, 22, pp. 141-184.

[24] Li, L., and Wu, X. (2014). Housing price and entrepreneurship in China. Journal of Comparative Economics, 42, 2, pp. 436-449.

[25] Liang, J., Wang, H., and Lazear, E. P. (2018). Demographics and entrepreneurship. Journal of Political Economy, 126, S1, pp. 140-196.

[26] Ma, L., Niu, D., and Sun, W. (2021). Transportation infrastructure and entrepreneurship: Evidence from high-speed railway in China. China Economic Review, 65, 101577.

[27] Ma, S., Wu, X., and Gan, L. (2019). Credit accessibility, institutional deficiency and entrepreneurship in China. China Economic Review, 54, pp. 160-175.

[28] Malmendier, U., Tate, G., and Yan, J. (2011). Overconfidence and early-life experiences: the effect of managerial traits on corporate financial policies. Journal of Finance, 66, 5, pp. 1687-1733.

[29] Moskowitz, T. J., and Vissing-Jørgensen, A. (2002). The returns to entrepreneurial investment: A private equity premium puzzle?. American Economic Review, 92, 4, pp. 745-778.

[30] Paulson, A. L., and Townsend, R. (2004). Entrepreneurship and financial constraints in Thailand. Journal of Corporate Finance, 10, 2, pp. 229-262.

[31] Schmalz, M. C., Sraer, D. A., and Thesmar, D. (2017). Housing collateral and entrepreneurship. Journal of Finance, 72, 1, pp. 99-132.

[32] Xie, Y., and Hu, J. (2014). An introduction to the China family panel studies (CFPS). Chinese Sociological Review, 47, 1, pp. 3-29

[33] Yukl, G. A., and Gardner W. L. (2020). Leadership in Organizations. Nineth edition, Pearson Education, Inc, Boston

[34] Zhang, S., and Wei, J. (2023). Can Digital Inclusive Finance better serve the development of the real economy?. Journal of Applied Finance and Banking, 13, 4, pp. 101-123.

[35] Zhao, H., and Seibert, S. E. (2006). The big five personality dimensions and entrepreneurial status: a meta-analytical review. Journal of Applied Psychology, 91, 2, pp. 259.