Intergenerational transmission of homeownership status - The Role of Co-signing Mortgages

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Research Question

Does parental homeownership impact children's homeownership choice inter-vivo through parents co-signing their mortgages?

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Does parental homeownership impact children's homeownership choice inter-vivo through parents co-signing their mortgages?

Motivation

- Can co-signing help financially constraint? Welfare?
- Consequences for macroprudential stability
- Wealth inequality

Preview of Results

Does parental housing status affect children's housing status?
Empirics:

1. Positive Correlation of homeownership status across generations
2. Positive Correlation with mortgage rates
3. Negative correlation with mortgage interest rates.
4. Direct Evidence on Co-Signing

Theory:

1. Outline of quantitative model

Outline

Literature

Empirics

Rationalize with a quantitative model

Appendix

Literature

Literature

- **Portfolio Choice with Housing**: Cocco 2005, Eichenbaum, Rebelo, and Wong 2022, Mian and Sufi 2011, Mian, Rao, and Sufi 2013, Mian and Sufi 2014, Mian, Sufi, and Trebbi 2015

$\Longrightarrow$ **Parental role in housing choice**

- **Intergenerational Wealth Transfers**: Black et al. 2022, De Nardi 2004, De Nardi and Fella 2017, Druedahl and Martinello 2022, Koltikoff and Summers 1981, Nekoei and Seim 2023, Modigliani 1988, Ohlsson, Roine, and Waldenström 2020, Saez and Zucman 2016

$\Longrightarrow$ **Co-signing as new channel?**

- **Transmission of Homeownership Status**: Blanden, Eyles, and Machin 2023,

Empirics

Connecting Data and Model

Is there a negative correlation in the data?

- PSID data 2003-2021 (10 biennial waves).
- Connect parental households to children.
  - Household ID, Person ID, 1968 Family ID
  - Not always a direct link between parents and children
  - Go to 1968 and track movers
- Combine with household portfolio.
  1. Focus on prime-age children (25-42)
  2. No Businessowner
  3. No Cohabitation

Averages across Parental Homeownership status

Table 1: Averages Across Parental Homeownership Status

Children	Parents Homeowner	Parents Renter	Overall
Observations	27865	11910	39775
% Homeowner	0.56*	0.32	0.49
% Homeowner, aged 20-25	0.27*	0.22	0.25
% Homeowner, aged 25-30	0.39*	0.23	0.34
% Homeowner, aged 30-35	0.56*	0.31	0.49
% Homeowner, aged 35-40	0.67*	0.4	0.6
% Homeowner, aged 40-45	0.73*	0.46	0.66
Net Family Wealth	106,479*	40,250	86,647
Net Parental Wealth	401,313*	43,422	294,148
Conditional on Homeownership			
Observations	15639	3828	19467
% Mortgage	0.82*	0.73	0.8
House Value	620,509*	966,277	688,501
Net Family Wealth	164,561*	105,432	152,934
Net Parental Wealth	462,885*	80,999	387,791
Conditional on Mortgage			
Observations	12805	2793	15598
Mortgage Interest Rate	5.25*	5.53	5.3
Total Mortgage Value	104,895**	32,175	91,661
Net Family Wealth	145,551*	113,164	139,752
Net Parental Wealth	456,438*	82,064	389,402

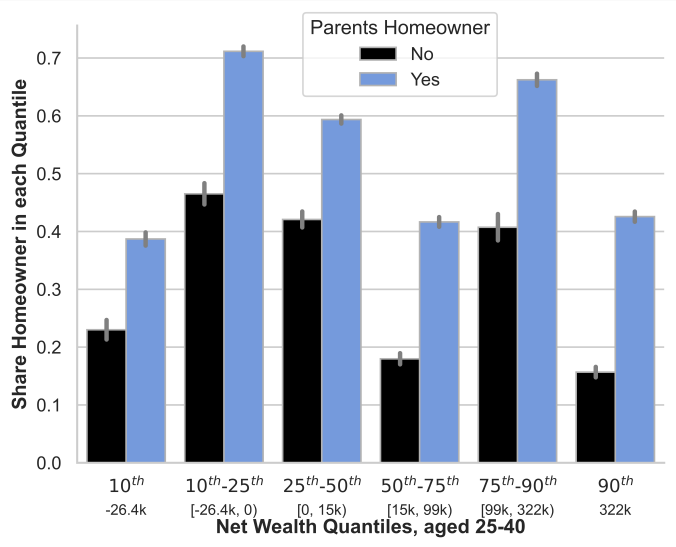
* denote statistical significance at 5% for a t-test in means

Median

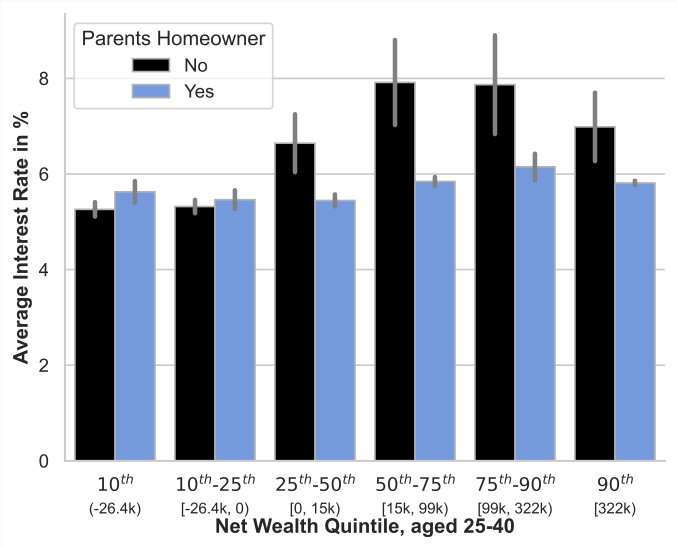
Homeowners by Wealth Quantile

Figure 1: Shares by Parental Homeownership Status and Wealth Quintile of Children

(a) Share of Homeowners



(b) Interest Rate on Mortgage



Errorbars are standard errors

Homeownership rates by education | Mortgage Shares | Interest rate by education

Regression Model

Estimated Model:

$$Y = \beta_1 PH + \beta_2 PS + \beta_3 PSt + \beta_4 PW + X\gamma_1 + PX\gamma_2 + \delta_t + \delta_s + \epsilon$$

Y: binary variable, 1 if homeowner
PH: binary variable, 1 if parents homeowner
PW: parents net wealth per child; PSt: parents stockholders; PS: parents savers.
PX: Parental Family Controls, X: Family Controls

$\Longrightarrow$ Targeted Counterfactual: Holding Wealth in Housing vs. Liquid Assets

Control Variables

Correlation with Childrens Homeownership Status

Table 2: Linear Probability Model

Dependent Variable:	Owner (I)	Mortgage (II)	Mort. Int. Rate (III)	Owner (IV)	Mortgage (V)	Mort. Int. Rate (VI)
Parents Owner	0.134***	0.046**	-0.227**	0.062***	0.047**	-0.174*
	(0.018)	(0.019)	(0.106)	(0.016)	(0.021)	(0.097)
Parents Saver	0.073***	0.065***	-0.214***	0.031***	0.019*	-0.093**
	(0.012)	(0.011)	(0.042)	(0.011)	(0.011)	(0.047)
Parents Stockholder	0.042***	0.04***	-0.135***	0.042***	0.015	-0.041
	(0.015)	(0.012)	(0.036)	(0.014)	(0.014)	(0.047)
Parental Wealth	-0.0	-0.002*	-0.002	0.001	-0.0	0.003
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.003)
Time & State & Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Parental FE	No	No	No	Yes	Yes	Yes
Covariance Type	Clustered	Clustered	Clustered	Clustered	Clustered	Clustered
No. Observations	24865	12205	9327	24865	12205	9327
Adj. R-squared	0.17	0.08	0.06	0.11	0.06	0.03

Parental Wealth measured in 100k.

Parental Wealth measured in 100k. Sample weights are applied.

Standard errors in parenthesis are clustered at the *1968 FAMILY IDENTIFIER* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

Controlling for Covariates

Table 3: Linear Probability Model - Covariates

Dependent Variable:	Owner (I)	Mortgage (II)	Mort. Int. Rate (III)
Parents Owner	0.056***	0.02	-0.218**
	(0.015)	(0.017)	(0.105)
Parents Saver	0.026**	0.039***	-0.146***
	(0.012)	(0.01)	(0.04)
Parents Stockholder	0.01	0.014	-0.071*
	(0.014)	(0.011)	(0.039)
Parental Wealth	-0.0	-0.003**	0.009
	(0.001)	(0.001)	(0.008)
Time & State & Cohort FE	Yes	Yes	Yes
Covariates	Yes	Yes	Yes
Covariance Type	Clustered	Clustered	Clustered
No. Observations	23453	11440	8728
Adj. R-squared	0.29	0.15	0.09

For Child and Parents: Total Family income, Education Indicator, Urban Indicator, Occupation, Marital Status, Vehicle Value, Inheritance, House Price Index, Wealth sq., IRA value, Health Status, Number of Children

For Child only: Total Net Wealth (sq.), Ethnicity, Same State as Parents.

For Parents only: Age (sq.), Total Net Wealth per Child (sq.), Retired, Children in Family Unit.

Standard errors in parenthesis are clustered at the *1968 FAMILY IDENTIFIER* level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

Interaction with Income

Table 4: Linear Probability Model - Income Interaction

Dependent Variable:	Owner (I)	Mortgage (II)	Mort. Int. Rate (III)
Parents Owner	0.086***	0.064*	-0.539**
	(0.022)	(0.033)	(0.21)
Parents Owner x Fam. Income	-0.006**	-0.006**	0.036**
	(0.003)	(0.003)	(0.015)
Parents Saver	0.102***	0.084***	-0.262***
	(0.019)	(0.018)	(0.073)
Parents Saver x Fam. Income	-0.01***	-0.005***	0.012**
	(0.002)	(0.001)	(0.005)
Parents Stockholder	0.07***	0.031**	-0.141***
	(0.019)	(0.016)	(0.052)
Parents Stockholder x Fam. Income	-0.006***	-0.002*	0.006**
	(0.001)	(0.001)	(0.003)
Parental Wealth	0.0	-0.003**	0.008
	(0.001)	(0.001)	(0.008)
Time & State % Cohort FE	Yes	Yes	Yes
Covariates	Yes	Yes	Yes
Covariance Type	Clustered	Clustered	Clustered
No. Observations	23453	11440	8728
Adj. R-squared	0.3	0.15	0.1

Parental Wealth measured in 100k.

Parental Wealth measured in 100k. Sample weights are applied.

Standard error in parenthesis are clustered at the *1968 Family ID* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

Looking at Siblings

Table 5: Linear Probability Model - Sibling Interaction

Dependent Variable:	Owner (I)	Mortgage (II)	Mort. Int. Rate (III)
Parents Owner	0.069***	0.012	-0.377*
	(0.023)	(0.028)	(0.228)
Parents Owner x Siblings	-0.009	0.005	0.110
	(0.011)	(0.014)	(0.097)
Parents Saver	0.027	0.042**	−0.192**
	(0.021)	(0.021)	(0.079)
Parents Saver x Siblings	0.000	-0.003	0.03
	(0.011)	(0.01)	(0.04)
Parents Stockholder	-0.012	0.036	-0.03
	(0.026)	(0.023)	(0.08)
Parents Stockholder x Siblings	0.014	-0.013	-0.026
	(0.013)	(0.011)	(0.038)
Parental Wealth	0.000	-0.004***	0.011
	(0.001)	(0.001)	(0.008)
Time & State & Cohort FE	Yes	Yes	Yes
Covariates	Yes	Yes	Yes
Covariance Type	Clustered	Clustered	Clustered
No. Observations	23524	11464	8746
Adj. R-squared	0.29	0.15	0.09

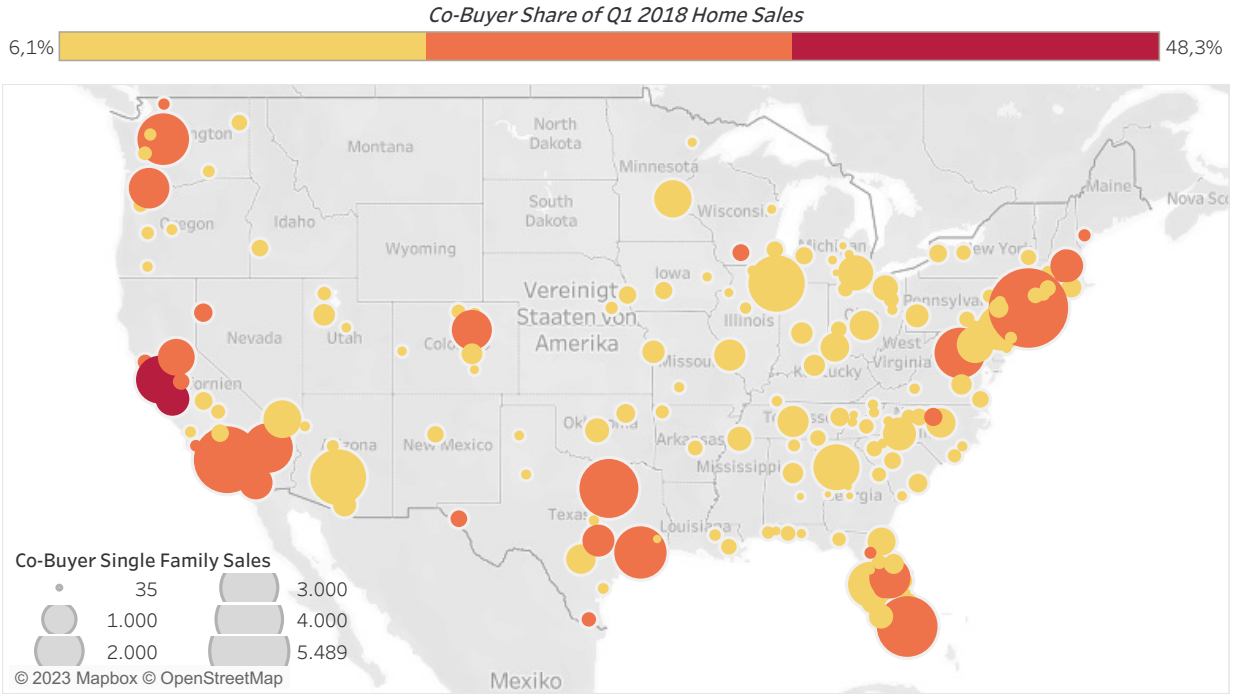
Parental Wealth measured in 100k.

Parental Wealth measured in 100k. Sample weights are applied.

Standard error in parenthesis are clustered at the *1968 Family ID* Level

Direct Evidence

Where Homebuyers Are The Most Sharing



Co-buyer home sales are those in which multiple, non-married buyers are included on the sales deed .

ATTOM DATA SOLUTIONS

Getting to direct evidence on co-signing

County Clerks have digital record of every single mortgage signed.

- Various type of contracts inform about type of mortgage.
- Contains Names of Lender and Borrower(s), size of originated mortgage, maturity and addresses.
- Number of Borrowers can be determined (can be even stricter). Sometimes even contains marital status.

Webscraping to retrieve pdfs. Optimal Character Recognition to extract information (neural nets).

Performance so far

Proof of concept for: Albany County. (Easy access)

- Analyzed 100 documents in 90 minutes.
- 78% can be identified automatically.
- 70% are family-home purchasing mortgages.
- Mortgage Size extraction rate at 67% after first try
- Borrower Names: 50%

Example

Prepared By:
TIFFANY MCNEAL
LOANDEPOT.COM, LLC
26642 TOWNE CENTRE DRIVE
FOOTHILL RANCH, CA 92610
(888)337-6888

After Recording Return To:
LOANDEPOT.COM, LLC
ATTN: DOC CONTROL
25500 COMMERCENTRE DR,
SUITE 100
LAKE FOREST, CA 92630
(888)337-6888

[Space Above This Line For Recording Data]

MORTGAGE

HOMEYER
Loan #: 104716630
MIN: 100853701047166300
MERS Phone: 1-888-679-6377
PIN: 54.1-4-18

WORDS USED OFTEN IN THIS DOCUMENT

(A) "Security Instrument." This document, which is dated DECEMBER 9, 2021, together with all Riders to this document, will be called the "Security Instrument."

(B) "Borrower." CHARLES E. HOMEYER, AS SURVIVING SPOUSE OF PATRICIA M. HOMEYER, DECEASED, whose address is 32 LACY LN, LOUDONVILLE, NY 12211 sometimes will be called "Borrower" and sometimes simply "I" or "me."

(C) "MERS" is Mortgage Electronic Registration Systems, Inc. MERS is a separate corporation that is acting solely as a nominee for Lender and Lender's successors and assigns. MERS is organized and existing under the laws of Delaware, and has a mailing address of P.O. Box 2026, Flint, MI 48501-2026, and a street address of 1901 E Voorhees Street, Suite C, Danville, IL 61834. The MERS telephone number is (888) 679-MERS. **FOR PURPOSES OF RECORDING THIS MORTGAGE, MERS IS THE MORTGAGEE OF RECORD.**

(D) "Lender." LOANDEPOT.COM, LLC will be called "Lender." Lender is a corporation or association which exists under the laws of DELAWARE. Lender's address is 26642 TOWNE CENTRE DRIVE, FOOTHILL RANCH, CA 92610.

(E) "Note." The note signed by Borrower and dated DECEMBER 9, 2021 will be called the "Note." The Note shows that I owe Lender TWO HUNDRED THOUSAND AND 00/100 Dollars (U.S. $200,000.00) plus interest and other amounts that may be payable. I have promised to pay this debt in Periodic Payments and to pay the debt in full by JANUARY 1, 2052.

(F) "Property." The property that is described below in the section titled "Description of the Property," will be called the "Property."

(G) "Loan." The "Loan" means the debt evidenced by the Note, plus interest, any prepayment charges and late charges due under the Note, and all sums due under this Security Instrument, plus interest.

But so what?

Merge it to the Loan Application Register (LAR) by the Home Mortgage Disclosure Act. Register Data on Mortgages containing information on Census Tract, Mortgage Size at Origin and Lending institution (clear name).
How unique are these identifiers?

- 86% of single-family purchasing loans can be uniquely identified in LAR.
- Forward: Match to PSID on mortgages observables

Goodies: Direct Evidence, Distributions of Mortgage Interest Rates for modelling.
Potentially: Diff-in-Diff?

Rationalize with a quantitative model

Incomplete Markets

Hypothesis:

Financial frictions matter - parents can:

a) Co-signing to reduce mortgage burden by children. More Assets $\Longrightarrow$ Lower Loan-to-Value Ratio

The model:

- Households rent or buy, given homeowner, can pay, sell, or default
- Individual endogenous interest rate on the mortgage
- Parents can support either collateral or not.
- Pledging collateral makes them liable but reduces the interest rate.

Households

With $S = (t, a, y; \Theta)$ first decision:

$$V(S) = \max\left\{V^{rent}(S), V^{buy}(S)\right\} \tag{1}$$

Having bought:

$$V^{h}(S, h^{own}, M) = \max\left\{V^{pay}(S, h^{own}, M), V^{def}(S)\right\} \tag{2}$$

where Θ is ex-ante type of agent. One gets support, the other doesn't.

Buyer

$$V^{own}(S) = \max_{c, h^{own\prime}, k', M'} u(c, h^{own}) + \beta s_t \mathbf{E}_y V^h(S', h^{own\prime}, M') \quad (3)$$

It is subject to

$$\begin{aligned} c + k' + (1-\iota)p^o h^{own} &= wy + (1+r)k + M' \\ h^{rent\prime} &= 0 \\ h^{own} &\in \mathcal{H}^{own} \\ M' &\leq (1-\iota)p^o h^{own} \\ k' &\geq 0 \end{aligned} \quad (4)$$

Mortgage

Choice variable

- Duration: Fixed at 30 periods.
- Total amount borrowed: $M = m\left[\sum_{k=1}^{30} \frac{1}{(1+R^m)^k}\right]$
- Law of Motion: $M' = M(1 + R^m) - m$
- Interest rate: $R^m = \frac{1}{(M-\chi)^\sigma}$, collateral χ
- $\chi = p^o(h^{own} + h^{own,p})$ sum of parents and children

Making Payments

$$V^{pay}(S, h^{own}, M) = \max_{c,k'} u(c, (1-\delta_h)h^{own}) + \beta s_t \mathbf{E}_y V^h(S', h^{own\prime}, M') \tag{5}$$

$$s.t.$$

$$c + k' + m = wy + (1+r)k + (1-\delta_h)p^{own}h^{own} \tag{6}$$

$$h^{own} \in \mathcal{H}^{own}$$

$$M' = M(1+R^m) - m \tag{7}$$

$$h^{own\prime} = (1-\delta_h)h^{own}$$

$$k' \geq -\lambda(p^o h^{own} - M)$$

$$h^{rent\prime} = 0$$

Default

$$V^{def}(S, h^{own}, M) = \max_{c,k'} u(c, (1-\delta_h)h^{rent}) + \beta s_t \mathbf{E}_y V^h(S')$$

$$s.t.$$

$$c + k' + p^r = wy + (1+r)k$$

$$h^{own\prime} = 0$$

$$h^{rent} \in \mathcal{H}^{rent}$$

$$k' \geq 0$$

Renter | Firms & Government | Last Period

Next Steps

- Continue Data Work
- Finish Numerical Solution
- Calibration to US data
- Policy experiments

Appendix

Median

Table 6: Medians Across Parental Homeownership Status

Children	Parents Homeowner	Parents Renter
% Homeowner	0.54*	0.28
% Homeowner, aged 25-30	0.41*	0.21
% Homeowner, aged 30-35	0.58*	0.28
% Homeowner, aged 35-40	0.67*	0.37
Net Family Wealth	151,000	113,000
Net Parents Family Wealth	402,000*	105,000
Cond. on Homeownership		
Av. House Value	167,000*	140,000
% Mortgage	1	1
Net Family Wealth	44,000*	35,000
Net Parents Family Wealth	95,000*	8,000
Cond. on Mortgage		
Fixed Interest Rates	5.25*	5.5
Loan-to-Value Ratio	1.94*	2.1
Total Mortgage Size	341,000*	315,000
Net Family Wealth	42,000*	32,000
Net Parents Family Wealth	99,000*	9,000

* denotes statistical significance at 5% for a t-test in means

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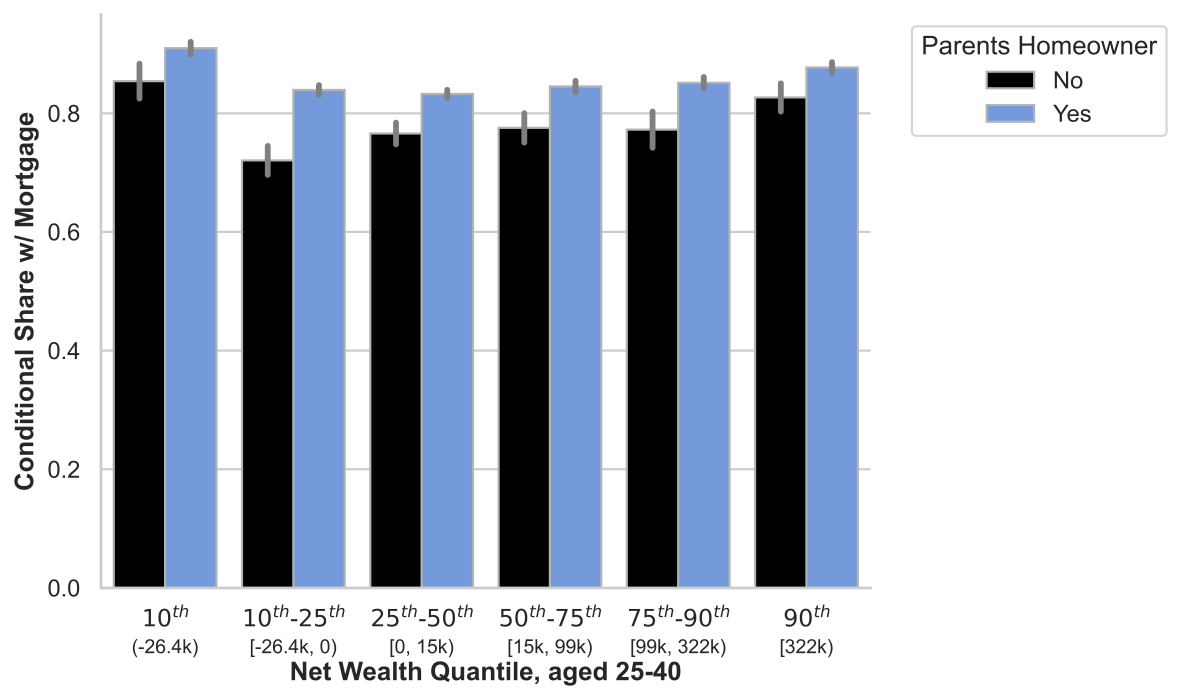
Share Mortgage by Wealth Quantile

Figure 4: Share of Homeowners with Mortgage by Wealth Quantile

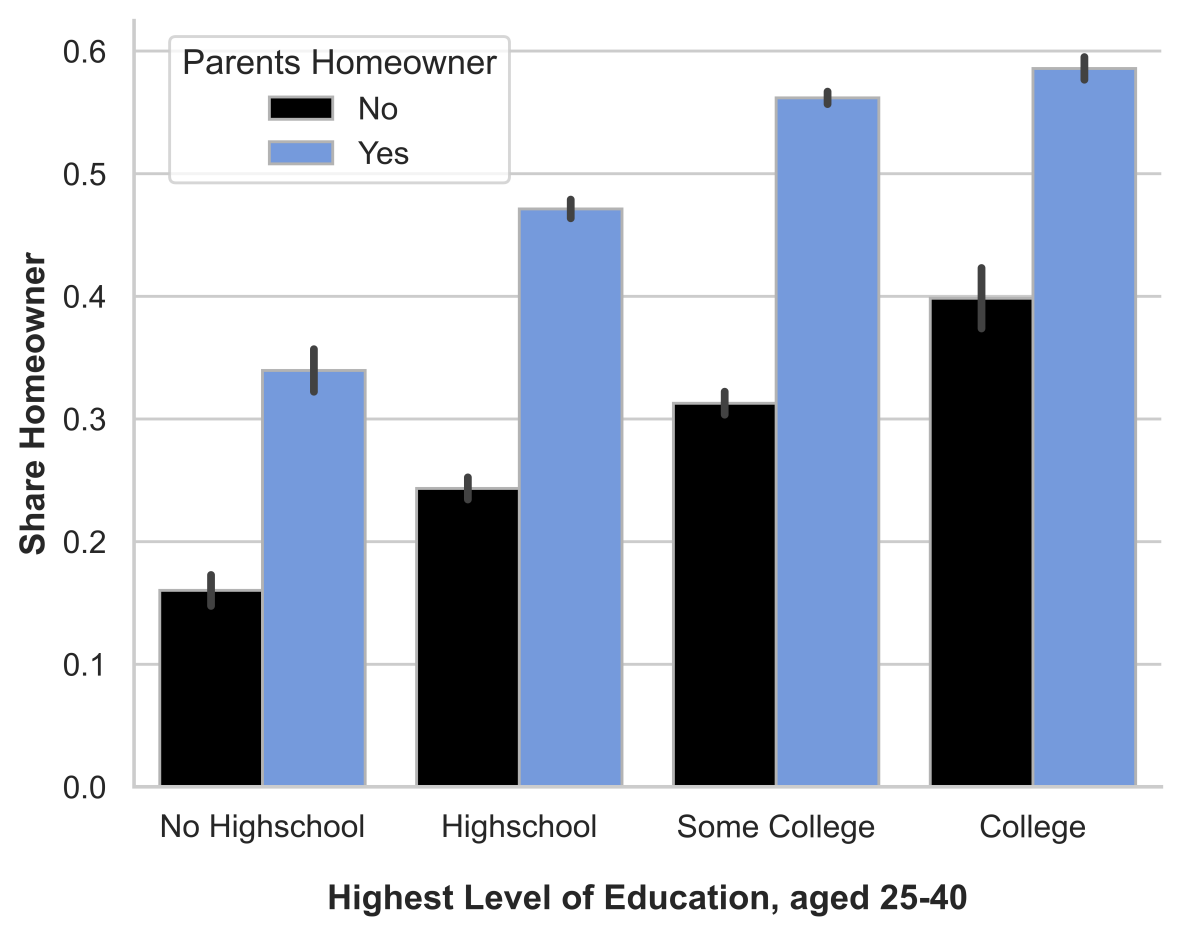


Errorbars are standard errors

By education Back

Homeowners by Education

Figure 5: Share of Homeowners by Education



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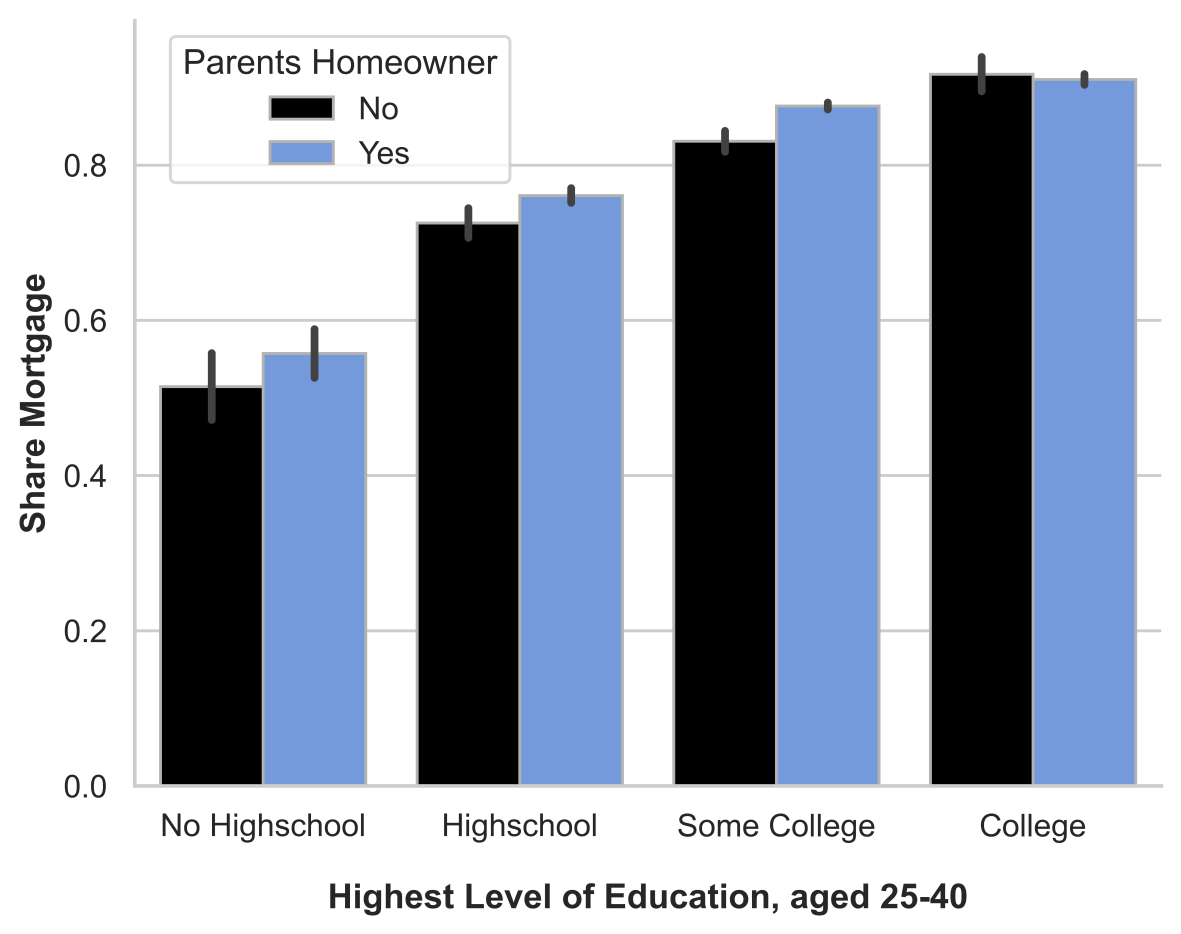
Mortgage by Education

Figure 6: Share of Homeowners with Mortgage by Education



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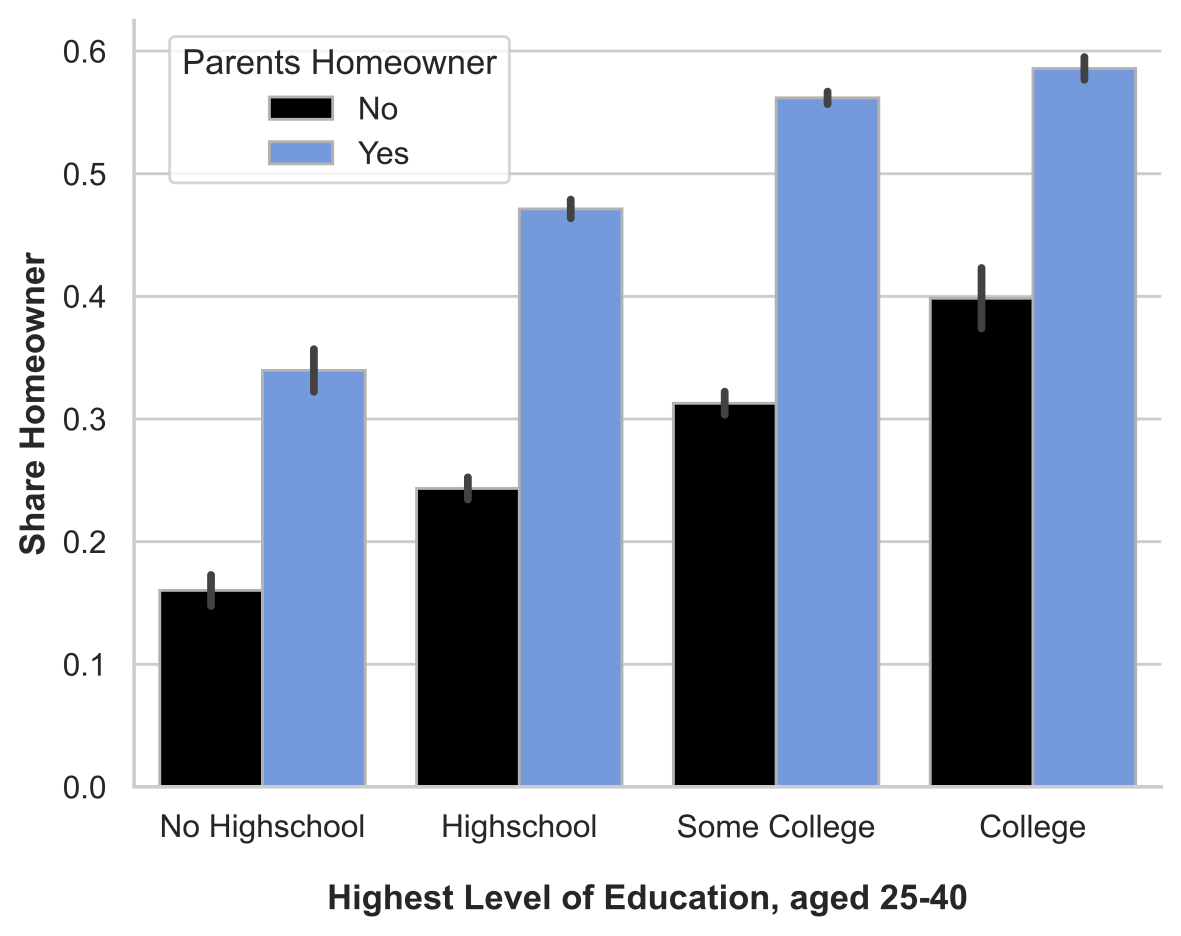
Interest Rate by Education

Figure 7: Average Interest Rate on Mortgage by Education



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Control Variables

- X: Family Control Variables
  Income, Children, Marital Status, Education Dummies, Own Wealth, House Prices Index, Age, Year Dummies, Urban Indicator, Occupation, Vehicle Value, Inheritance, Unemployment, Student, Disabled, Poor Health, Credit Card Debt, Student Loan Debt, Medical Debt, Legal Debt
- PX: Parental Control Variables
  Parental Income, Parents' Durables, Parents' Retirement Savings, Parental Education Dummies, Age, Age Parents sq., Parents Inheritance, Parent's urban, Parents' Occupation, and Parents' Gift
- δ_t, time-fixed effects; δ_s, state-fixed effects.

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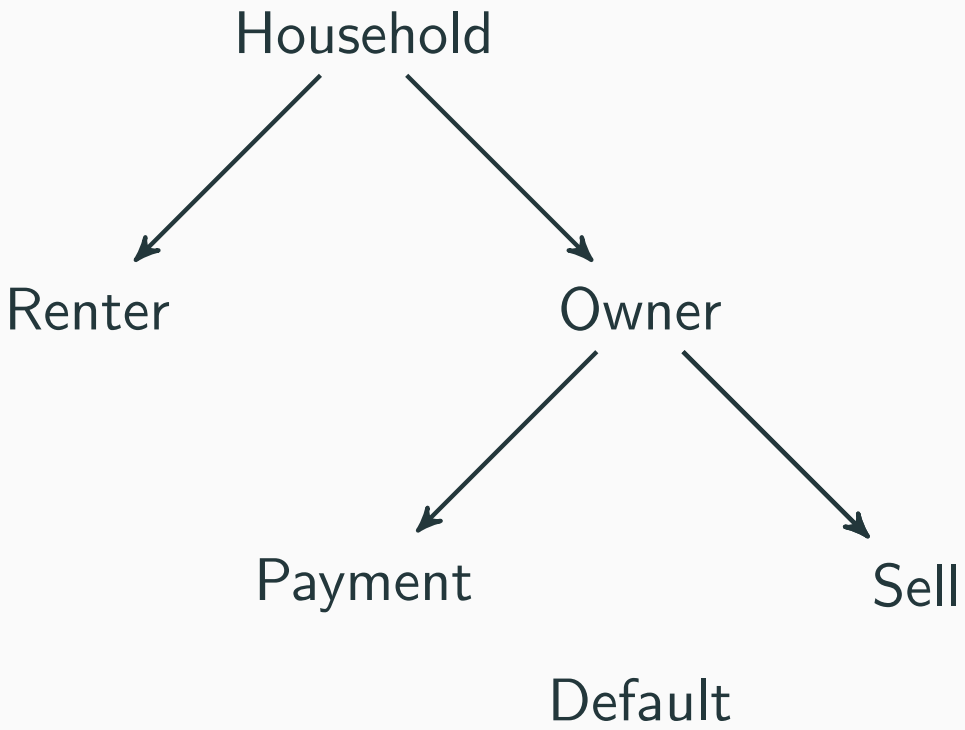
Incomplete Markets: Households



Renters

$$V^{rent}(t,a,y) = \max_{c,h^{rent\prime},k'} u(c,h^{rent}) + \beta s_t \mathbf{E}_y V(S') \tag{8}$$

It is subject to

$$\begin{aligned} c + k' + p^r h^{rent} &= wy + (1+r)k \qquad (9)\\ h^{own\prime} &= 0 \\ h^{rent} &\in \mathcal{H}^{rent} \\ k' &\geq 0 \end{aligned}$$

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Firms

Firms:

$$\Pi(K; L) = AK^{\alpha}L^{1-\alpha} - (r - \delta)K - wL \tag{10}$$

- A - productivity, r - interest rate on capital, δ - depreciation of capital

Government:

$$\tau_l wL + \tau_k rK + \tau_b^k b(k) = \Theta \sum_{t=T^{ret}}^{T} \mu_t \ \forall t \tag{11}$$

τ_l labour income tax, τ_k capital gains tax, τ_b^k bequest tax

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Parents

$$\text{Parents, only collateral: } V^{p,h,c} = V^h(t, k, y, \underline{h}^{own}, M)$$

$$\text{Parents, nothing: } V^{p,h,n} = V^h(t, k, y, h^{own}, M)$$

$$\text{Parents, nothing: } V^{p,n} = V(t, k, y)$$

$$\mathbf{I}_\chi = \begin{cases} \chi & \text{if } \max\{V^{p,h,c}, V^{p,h,b}\} \geq \max\{ \\ 0 & \text{if otherwise} \end{cases}$$

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Last Period - Renter

$$
\begin{aligned}
V^J(t,a,y) = & \max_{c,h^{rent\prime},k'} u(c,h^{rent}) + \beta\phi(a_T,0) s.t. \\
c + k' + p^r h^{rent} = & (1-\tau_l)wy + (1+r(1-\tau_k))k \qquad (12) \\
h^{rent} \in & \mathcal{H}^{rent} \\
k' \geq & 0
\end{aligned}
$$

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Correlation with Childrens Homeownership Status

Table 7: Sample Weights - Child Homeownership

	Dep. Var.: Child Homeowner	
	(I)	(II)
Parents Homeowner	0.206***	0.111***
	(0.021)	(0.023)
Parents Stockholder	0.025	0.018
	(0.019)	(0.018)
Parents Savers	0.025*	0.01
	(0.015)	(0.015)
Control Variables	No	Yes
Time & State FE	Yes	Yes
No. Observations	15244	11421
Entities	4470	2539
Time periods	9	9
R-squared	0.09	0.29

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

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Mortgage Share & Mortgage Interest Rates - Sample Weights

Table 8: Pooled OLS - Linear Probability Model II

Dep. Var.:	Has Mortgage		Interest Rate	
	(I)	(II)	(III)	(IV)
Parents Homeowner	0.037*	0.001	−0.369*	−0.7714***
	(0.019)	(0.024)	(0.22)	(0.367)
Parents Stockholder	0.03**	0.024*	−0.031	−0.359
	(0.013)	(0.014)	(0.133)	(0.228)
Parents Savers	0.039***	0.025*	−0.365**	−0.476*
	(0.013)	(0.015)	(0.176)	(0.251)
House Value	Yes	Yes	Yes	Yes
Mortgage Size	No	No	Yes	Yes
Other Control Variables	No	Yes	No	Yes
Time & State FE	Yes	Yes	Yes	Yes
No. Observations	7121	5802	5448	4566
Entities	4468	1623	1662	1372
Time periods	9	9	9	9
R-squared	0.1	0.18	0.06	0.11

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

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Interaction with Income - Sample Weight

Table 9: Pooled OLS - Interaction with Income

Dep. Var.:	(I) Child Homeowner	(II) Has Mortgage	(III) Interest Rate
Parents Homeowner	0.173***	0.061	−0.971
	(0.034)	(0.042)	(0.767)
Parents Homeowner x Fam. Income	−0.11**	−0.063*	0.069
	(0.044)	(0.035)	(0.047)
Parents Stockholder	0.024	0.028	−0.433
	(0.03)	(0.024)	(0.288)
Parents Stockholder x Fam. Income	−0.013	−0.003	−0.003
	(0.028)	(0.012)	(0.014)
Parents Savers	0.028	0.031	−0.25
	(0.023)	(0.022)	(0.378)
Parents Savers x Fam. Income	−0.02	−0.006	−0.037
	(0.023)	(0.012)	(0.04)
House Value	No	Yes	Yes
Mortgage Size	No	No	Yes
Other Controls	Yes	Yes	Yes
State & Time FE	Yes	Yes	Yes
No. Observations	11421	5802	4653
Entities	2494	1623	1387
Time periods	9	9	9
R-squared	0.33	0.18	0.11

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

Family Income is denoted in 10,000$

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Probit

Table 10: Probit at Median - Marginal Effects

	Dep. Var.: Child Homeowner	
	(I)	(II)
Parents Homeowner	0.211***	0.144***
	(0.013)	(0.012)
Parents Stockholder	0.03***	0.005
	(0.011)	(0.015)
Parents Savers	0.035***	0.01
	(0.009)	(0.012)
Control Variables	No	Yes
Time & State FE	Yes	Yes
No. Observations	15244	11421
Entities	4470	2539
Time periods	9	9

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

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Mortgage Share & Mortgage Interest Rates - Probit

Table 11: Probit At Median

Dep. Var.:	Has Mortgage	
	(I)	(II)
Parents Homeowner	0.046***	0.001
	(0.016)	(0.018)
Parents Stockholder	0.042**	0.019
	(0.018)	(0.02)
Parents Savers	0.048***	0.048***
	(0.014)	(0.016)
House Value	Yes	Yes
Other Control Variables	No	Yes
Time & State FE	Yes	Yes
No. Observations	7121	5802
Entities	4468	1623
Time periods	9	9

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

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Introducing Family Fixed Effects

Table 12: Pooled OLS - Linear Probability Model II

Dep. Var.:	Child Homeowner (I)	Has Mortgage (II)	Interest Rate (III)
Parents Homeowner	0.055**	−0.049	−0.565
	(0.025)	(0.032)	(0.581)
Parents Stockholder	−0.004	0.008	−0.03
	(0.015)	(0.014)	(0.124)
Parents Savers	0.008	0.014	−0.35*
	(0.011)	(0.012)	(0.196)
House Value	No	Yes	Yes
Mortgage Size	No	No	Yes
Other Control Variables	Yes	Yes	Yes
Time & State FE	Yes	Yes	Yes
No. Observations	11421	5802	4566
Entities	2240	1483	1274
Time periods	9	9	9
R-squared	0.17	006	0.02

Standard error in parenthesis are clustered at the *1968 Family* Level

***, **, * denote statistical significance at 1%, 5% and 10%, respectively

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