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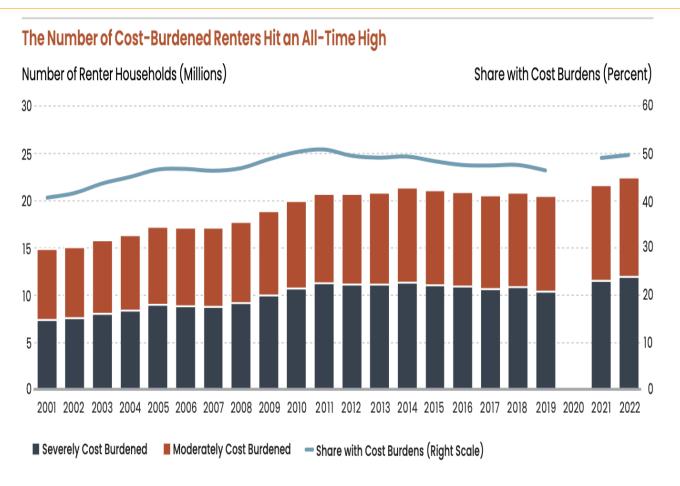
How to Address Housing Affordability in the United States?

Tim McQuade
UC Berkeley Haas School of Business

Prepared for the 2025 UCSD Economics Roundtable



Rent Burdened Households at All-Time Highs





Source: JCHS

Issue is Geographically Widespread

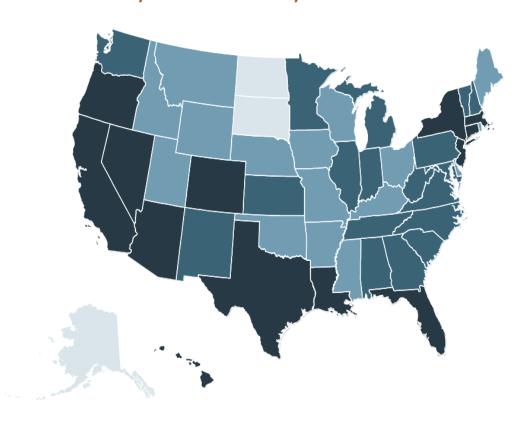
More Than a Third of Renters Are Cost Burdened in Every State in the Country

Share of Renters with Cost Burdens (Percent)

- 37.0-39.9
- 40.0-44.9
- **45.0-49.9**
- **■** 50.0-57.9

Notes: Cost-burdened households spend more than 30% of income on rent and utilities. Households with zero or negative income are assumed to be burdened, while households that are not required to pay rent are assumed to be unburdened.

Source: JCHS tabulations of US Census Bureau, 2022 American Community Survey 1-Year Estimates.



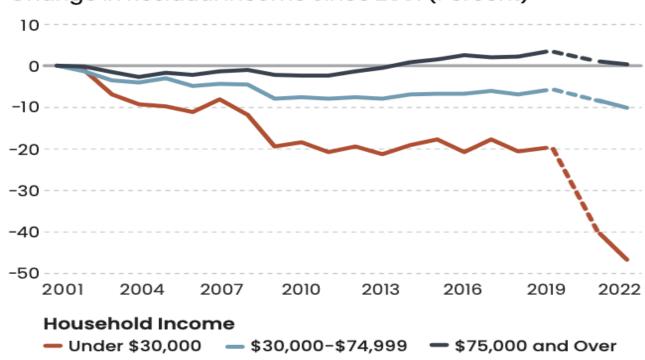


Source: JCHS

Lowest Income Households Increasingly Squeezed

After Paying for Housing, Lower-Income Renters Have Less Money Left Over Than Ever Before

Change in Residual Income Since 2001 (Percent)





Source: JCHS

Housing Affordability / Instability Policy Landscape

- 1. Rent Control
- 2. Affordable Housing Subsidies
 - Section 8 Vouchers
 - Low Income Housing Tax Credit (LIHTC)
- 3. Increased supply through zoning relaxation
 - Multifamily upzoning (California SB9) and zoning streamlining (California SB10)
 - Affordable Dwelling Units (ADUs)
- 4. Tenant Protections
 - NYC Right-to-Counsel Law
 - Eviction moratoria and judicial delays
- Landlord Insurance
 - Visale scheme introduced by France in 2016



Rent Control in the United States

- Rent control continues to occupy significant space in the housing affordability policy debate
- Repeal of Costa-Hawkins on the California ballot in 2018, 2020, 2024
- Recent local rent control initiatives:

Asbury Park, NJ	2021	City council	Passed	Rent control (higher of 3.5% or CPI)
Tampa Bay, FL	2021	City council	Rejected	Rent control ballot initiative
St. Petersburg, FL	2021	City council	Rejected	Rent control ballot initiative
Santa Ana, CA	2021	City council	Passed	Rent control (lower of 3% or 80% of CPI)
Minneapolis, MN	2021	Ballot measure	Passed	Allow local government to enact rent control
St. Paul, MN	2021	Ballot measure	Passed	Rent control (3%)
Bell Gardens, CA	2022	City council	Passed	Rent control (lower of 4% or 50% of CPI)
Antioch, CA	2022	City council	Passed	Rent control (lower of 3% or 60% of CPI)
Pomona, CA	2022	City council	Passed	Rent control (lower of 4% or 100% of CPI)
Kingston, NY	2022	City council	Passed	Rent control (limits determined by board)
Richmond, CA	2022	Ballot measure	Passed	Rent control (lower of 3% or 60% of CPI)
Orange County, FL	2022	Ballot measure	Passed	Rent control (CPI)
Portland, ME	2022	Ballot measure	Passed	Rent control (70% of CPI, 5% maximum for new tenants)
Santa Monica, CA	2022	Ballot measure	Passed	Rent control (lower of 3% or 75% of CPI)
Pasadena, CA	2022	Ballot measure	Passed	Rent control (75% of CPI)



Source: Ahern and Giacoletti (2023)

Rent Control in California is "Third-Generation"

- 1st generation rent controls impose hard rent caps, setting a maximum amount the landlord can charge
 - More common historically (e.g. New York City in the post-war period)
- Second-generation rent controls regulate rent increases and apply regardless of vacancy
 - St. Paul, Minnesota ordinance passed in 2021 is second-generation, although properties built after 2004 were recently exempted as of May 2025
 - 2nd generation controls are more common in Europe (e.g. France, Germany, Spain)
- Costa-Hawkins implies rent control in California is third-generation
 - Properties built after 1995 are exempt from rent control regulations
 - Vacancy decontrol: landlords can reset rents to market rents when a new lease is signed



The Costs and Benefits of Rent Control

- Potential drawbacks of rent control have been pointed out by numerous economists
 - Over-consumption of rent-controlled housing (Olsen 1972, Gyuorko and Linneman 1989)
 - Misallocation of heterogeneous housing to heterogeneous tenants (Suen 1989, Glaeser and Luttmer 2003, Sims 2011, Bulow and Klemperer 2012)
 - Negative spillovers onto neighboring housing (Sims 2007, Autor, Palmer, and Pathak 2014)
 - Neglect of required maintenance and underinvestment (Downs 1988)
- However, rent control advocates point to significant benefits to tenants
 - Long-term tenants may have significant neighborhood-specific capital: e.g. family and friends network, proximity to place of employment, schooling opportunities, etc.
 - Financial constraints make owning a home difficult for many tenants
 - Advocates argue rent control is effective at providing a form of insurance that tenants greatly value and which is difficult to obtain otherwise
- Diamond, McQuade, and Qian (2019) provide causal estimates of the impact of rent control on tenants, landlords, and housing supply



1994 San Francisco Rent Control Ballot Initiative

- San Francisco rent control began in 1979
 - Covered rental units built before June 13, 1979
 - Capped annual nominal rental increases within a tenancy but not between tenants
- Exempted multifamily housing with 4 units or less
- Small multifamily housing increasingly sold to larger businesses
- 1994 SF ballot initiative removed exemption
 - Barely passed in November 1994



Data Sources

1. Infutor

- Entire address history of SF residents between 1990-2016
- Provides exact street address, dates of residence, name of individual, and gender

2. DataQuick

- Public records information on San Francisco properties
- Provides use-code, age of building, number of units, and post-1988 transaction history

3. San Francisco Assessor's Office

- History of individual parcels in San Francisco
- Provides information on parcel splits, such as converting multifamily housing to condos

4. San Francisco Planning Office

- History of permits associated with each parcel
- Provides information on large investments, renovations, and changes in building use type



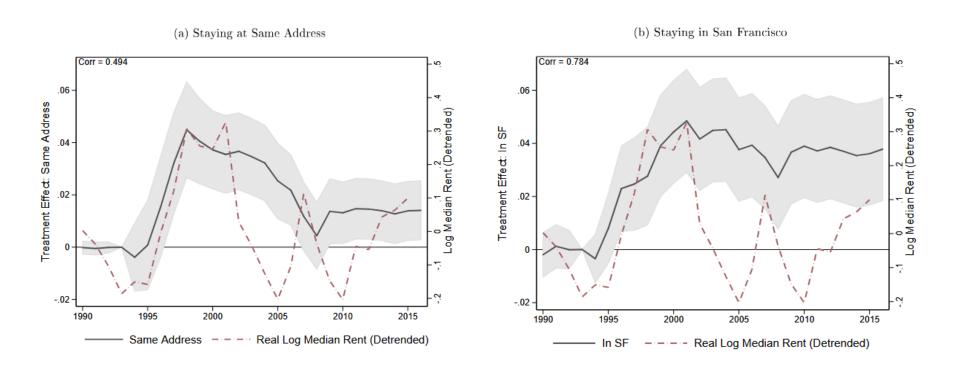
Empirical Strategy



- Compare tenants living in small multifamily housing built prior to 1979 to tenants living in multifamily housing built post 1979
- Compare tenants living in the same zipcode with same length of tenancy
- Exclude new construction
- Use buildings built between
 1960-1979 as a robustness test



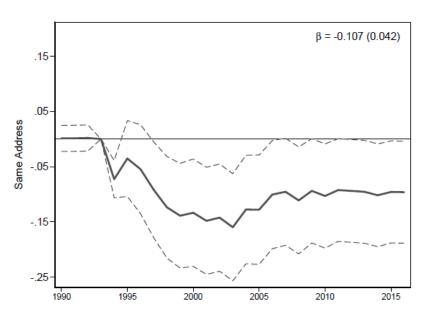
Rent Control Effective at Preventing Displacement



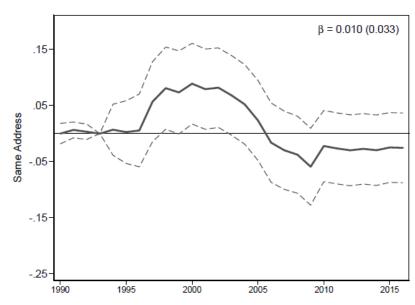
City-displacement effects driven by racial minorities, one of the stated goals of the law



However, landlords do not remain idle...



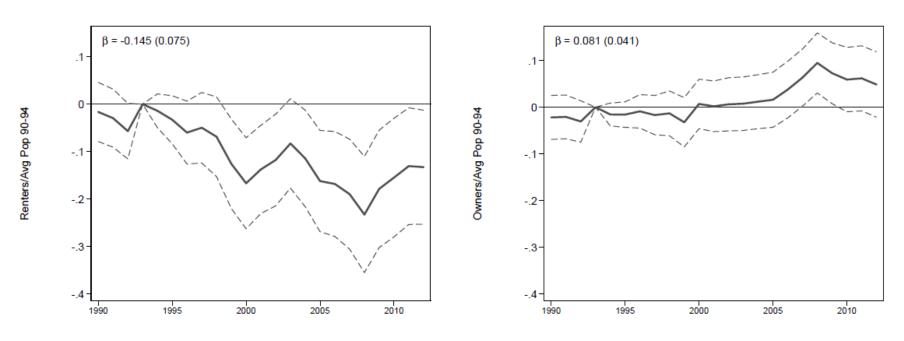
(a) High Rent Appreciation Tracts



(b) Low Rent Appreciation Tracts



15% Decline in Renters and 8% Increase in Owners

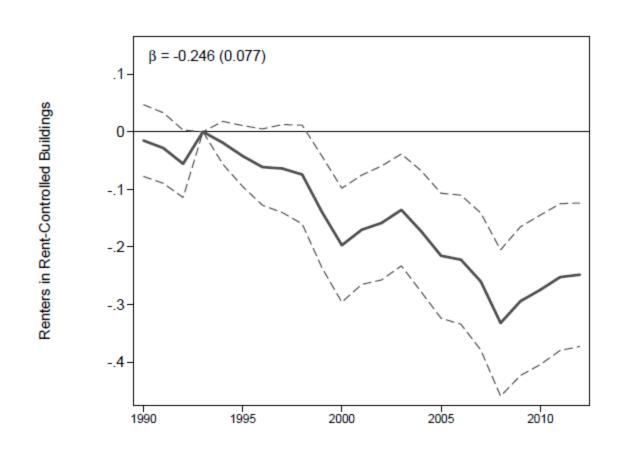


(a) Renters/Average Population 1990-1994

(b) Owners/Average Population 1990-1994

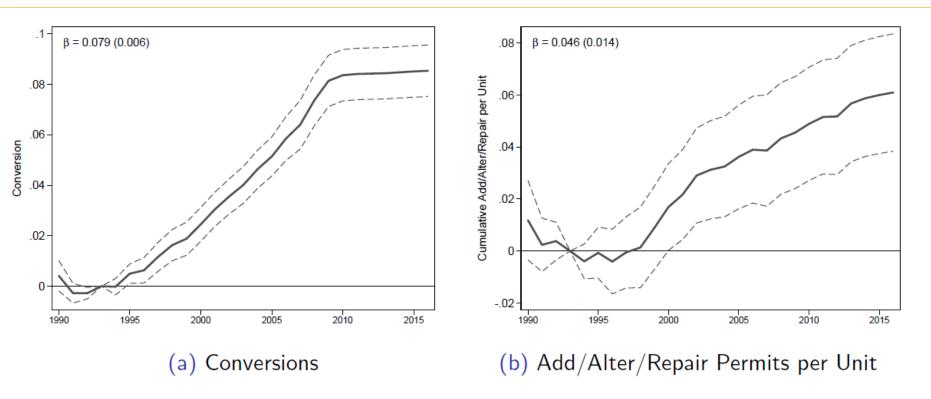


25% Decline in Renters in Rent-Controlled Units





RC Landlords Convert to Condo Over this Period



- Effects driven by corporate landlords, as opposed to small individual landlords. Individual landlords were disproportionately "left holding the bag."
- Evidence of racial heterogeneity, with minority landlords hurt more than white landlords.

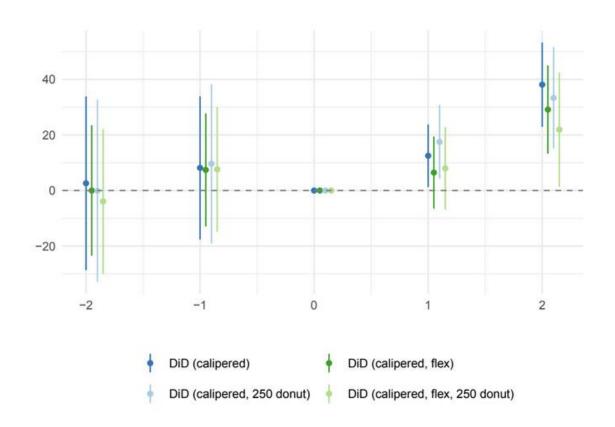


Equilibrium Effects of Rent Control on Market Rents

- Use a structural model to translate the observed supply response into an equilibrium response on market rents
- Conclude reduced supply led to a city-wide increase in rents of 5.1%
- Present value cost of \$2.9 billion, with 42% borne by future renters of the city
- SF rent control reflected a significant transfer from future renters to renters in 1994

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Impact of Right-to-Counsel on NYC Rent Prices





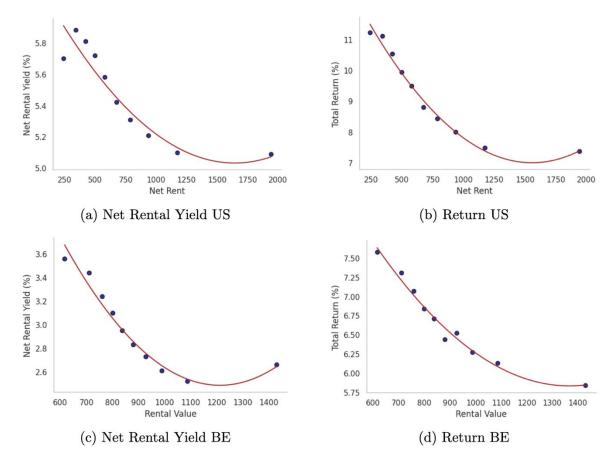
Source: Collinson et al. (2024)

Alternatives to Rent Control and Tenant Protections

- Rent control and other tenant protections can generate equilibrium responses which work against the intended goals of the law
- Alternatively, focus on supply-side interventions that address potential frictions
 - Landlord risk compensation
 - Regulatory frictions (e.g. zoning restrictions, red tape, etc.)
- Being a landlord entails significant risk:
 - Unexpected maintenance costs
 - Turnover and vacancy duration
 - Regulatory changes
 - Non-payment risk and eviction costs
- Smaller, undiversified landlords may require **compensation** for this risk in the form of higher returns, which will translate to **higher rents**
- Example of an incomplete markets problem



Net Rental Yield and Total Housing Returns Declining in Net Rent





Source: Damen, Korevaar, and Van Nieuwerburgh (2025)

Non-Payment Risk Significant in Low-Income Segment

- Humphries et al. (2024) source a unique dataset of privately owned rental properties in low-income neighborhoods in Midwest USA
- Covers 6000 low-income tenants between 2015 and 2019 and provides information on timing and amount of nonpayment for each tenant

Statistic	All (1)	No Voucher (2)	Voucher (3)	Not Evicted (4)	Evicted (5)
M	000	09.4	1.050	005	071
Monthly Rent (\$) Share of Bent Collected (97)	920	834	1,052	935	$\begin{array}{c} 871 \\ 73.2 \end{array}$
Share of Rent Collected (%)	90.9	86.2	96.7	95.6	13.2
Balance at Moveout (\$)	1,252	1,579	611	630	3,229
Evicted (%)	23.9	30.1	11.9	0.0	100.0
Months Tenure	15.3	14.0	17.8	15.7	13.9
Months Vacant after Moveout	2.0	2.0	2.1	1.8	2.4
	-	0.045	1.000	4.440	1 001
Tenancies	5,809	3,847	1,962	4,418	1,391
Units	3,937	2,705	1,638	$3,\!305$	1,204



Important Questions

- 1. Do landlord concerns over non-payment risk constrain tenant access to private rental housing and access to housing in high-opportunity locations?
 - Difficult to answer since non-payment risk is correlated with a variety of other tenant and property characteristics
 - Classic endogeneity problem in economics
- 2. Can government intervention provide a form of landlord insurance that **benefits tenants**?

- 3. Can this be done at reasonable fiscal cost?
 - Badly designed program could introduce moral hazard and adverse selection concerns
 - Ideally, we would like to measure the costs involved in providing such insurance and compare the cost per induced move to other policy interventions



Visale: Visa for Housing and Employment

- Rent guarantee insurance, free of charge to tenants and landlords, introduced in France in 2016
- Covers up to 36 months of unpaid rent
- Offered by Action Logement (publicly funded employee union)
- Initially reserved to those below the age of 30
 - Expanded to very low-income earners above 30 in late 2021
- If non-payment occurs, Visale pays landlord directly
 - Visale then holds a claim against the tenant
 - Eviction rights transfer to Visale



Non-payment Risk is Substantial in France

- 4 features make rent non-payment especially relevant in France:
- 1. Non-diversification of landlord portfolios

2. Lengthy and complex eviction process

- 3. Legal restrictions on security deposits
- 4. No credit scores or credit bureau information Berkeley Haas

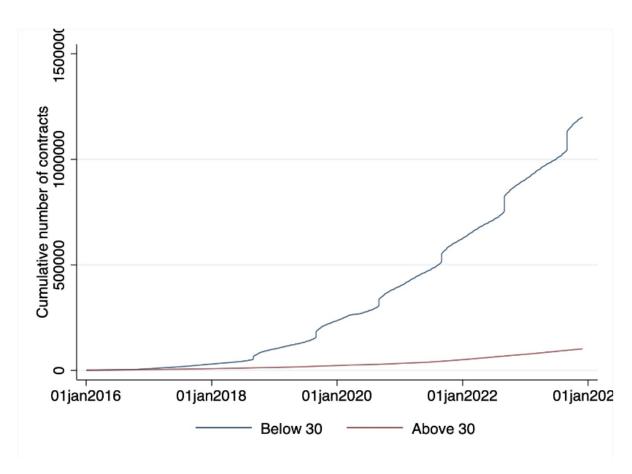
Prior to the Introduction of *Visale*

Prior to Visale, landlords used three main coverage tools

- 1. Individual guarantors
 - 50% of private-sector landlords required one
 - Parents or relatives providing payslips and tax returns
- 2. Privately-provided rent guarantee insurance
 - Not much market penetration
 - Stringent requirements on tenants
- 3. Screening
 - Suggestive evidence of rationing against low-income, young, and immigrant households



The Visale Scheme Took off After 2017





Data Sources

1. FIDELI Tax Registry

- Covers all individuals and dwellings in France from 2015 to 2022
- Information on demographics, income, dwelling characteristics, and occupation status

2. Census Microdata

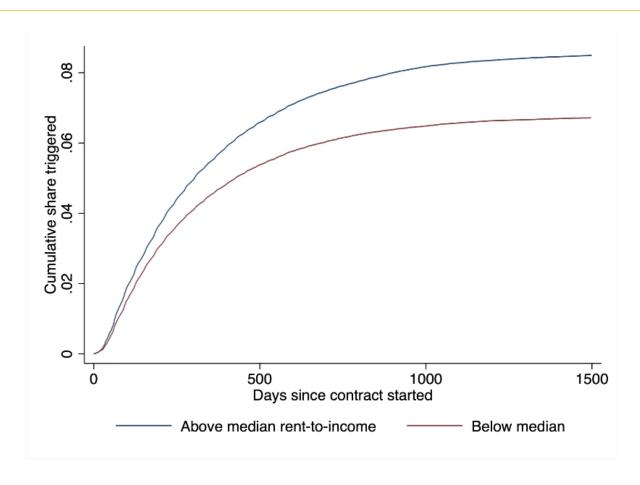
- Covers all individuals in France from 2013 to 2022
- Provides information on immigration status

3. Confidential Administrative Visale Data

- Tenant, dwelling, and landlord characteristics at start of the lease
- All claims and payments under the scheme

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Non-payment is Significant and Connected to Economic Fragility



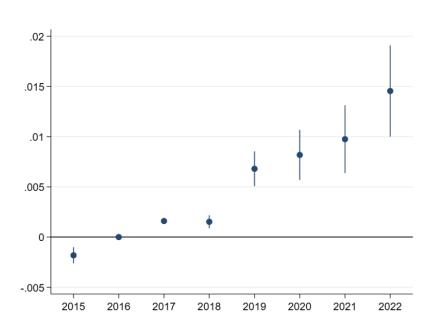


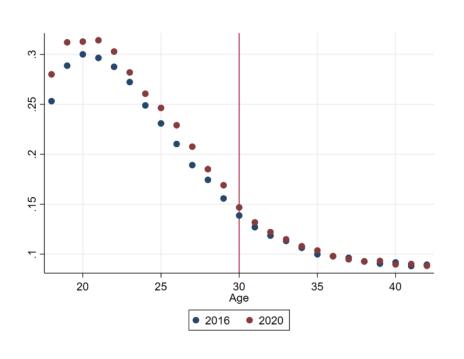
Non-Payment Very Difficult to Predict

Dependent variable: any insurance claim	Estimated coefficients (s.e.)	
	(1)	(2)
Net monthly income < 5th percentile	0.00863***	0.00512*
	(0.00296)	(0.00295)
Net monthly income \geq 5th percentile	-0.0840***	-0.0676***
	(0.00196)	(0.00197)
Net monthly income $<$ 5th percentile \times Rent-to-income Ratio	-6.22e-05	-1.49e-05
	(4.72e-05)	(4.94e-05)
Net monthly income \geq 5th percentile \times Rent-to-income Ratio	0.144***	0.126***
	(0.00456)	(0.00460)
Student	-0.0500***	-0.0441***
	(0.00119)	(0.00118)
Rent per sqm	-0.000475***	6.44e-05**
	(2.33e-05)	(2.59e-05)
Furnished apartment	-0.00888***	-0.00461***
	(0.000534)	(0.000543)
Non-EU foreigner	0.0231***	0.0213***
	(0.000489)	(0.000494)
EU foreigner	-0.0107***	-0.00727***
	(0.000768)	(0.000786)
Constant	0.105***	0.0855***
	(0.00127)	(0.00127)
Province FE × Year of beginning of lease FE		✓
Observations	1,070,500	1,054,365
R-squared	0.008	0.028



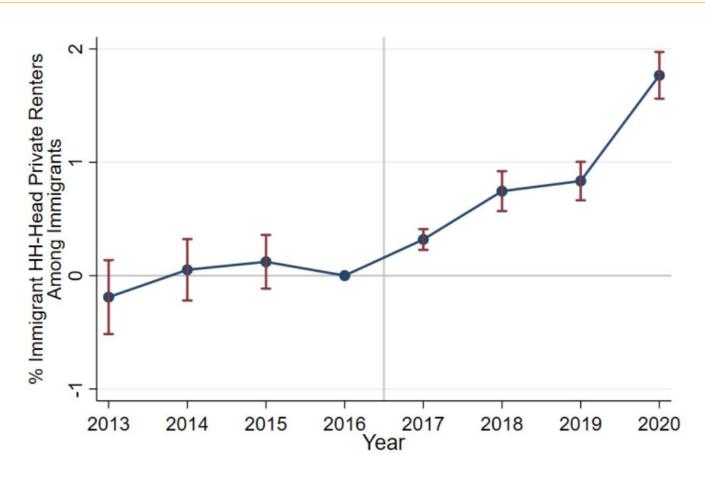
Visale Increased Access to Rental Housing





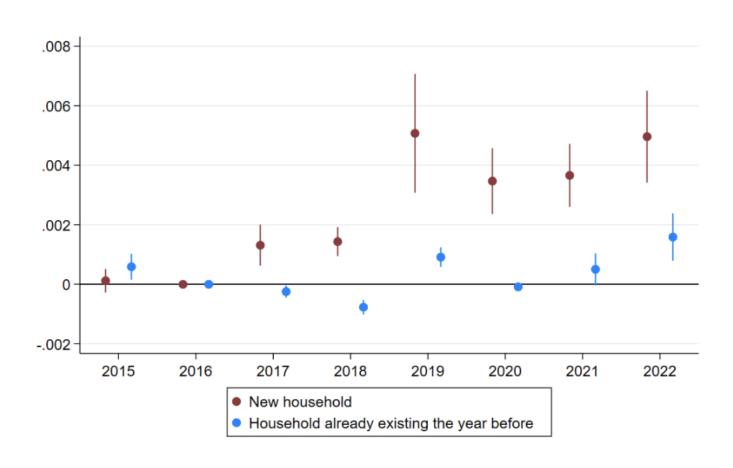


Largest Effects for Non-EU Immigrants



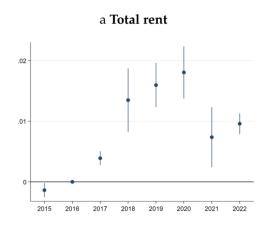


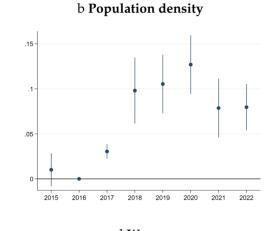
Effects Driven by Household Formation

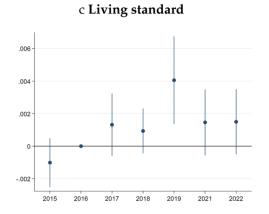


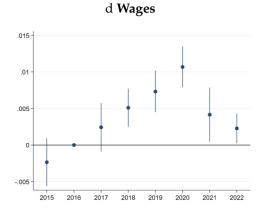


Visale Facilitated Access to Valuable Locations











Zoning Reform: A Solution to the Affordability Crisis?

Zoning reform is the solution: quantity increases

"Ordinances routinely ban the construction of multifamily housing and require homes to be built on large lots, artificially boosting the price of shelter" (WSJ, 2014)

Zoning reform builds expensive housing: quality increases

"Upzoning gives developers a free pass to demolish good, modest-priced homes and replace them with much more expensive homes that will do nothing to easy the affordability crisis" (Restore Oregon, 2017)

Zoning reform increases property values, developer profits

"Real estate interests in favor of a large-scale upzoning of SoHo and NoHo...would line the pockets of the developers behind the effort (CityLimits, 2020)



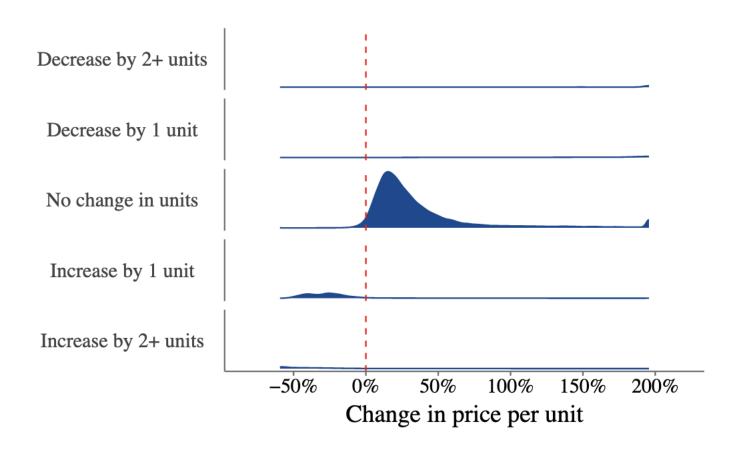
Addressing the Impacts of Zoning Reform

- New data: Linked parcel-level transactions, zoning, redevelopment, and historical parcel characteristics from Cook County
- 2. Structural model that uses observed (re)development activity to estimate fixed and variable development costs

3. Laboratory to estimate the supply response of various proposed zoning reforms

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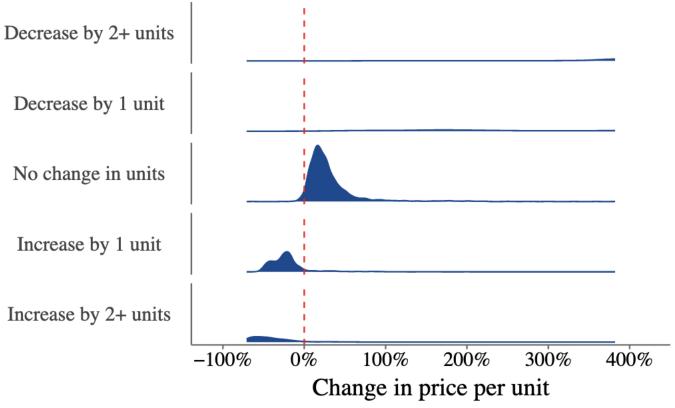
Large Share of Observed Redevelopments Only Increase Quality





True Even When Zoning Not a Binding Constraint

Restrict data to lots where zoning allows for more units than currently built





Model Intuition

 Observed transaction prices and zoning regulation defines developer choice set and potential revenue from redevelopment activity (renovation, new construction)

Observed redevelopment activity allows for rich estimation of development costs

 Prices paid by developers reveals the surplus split between developers and current property owners



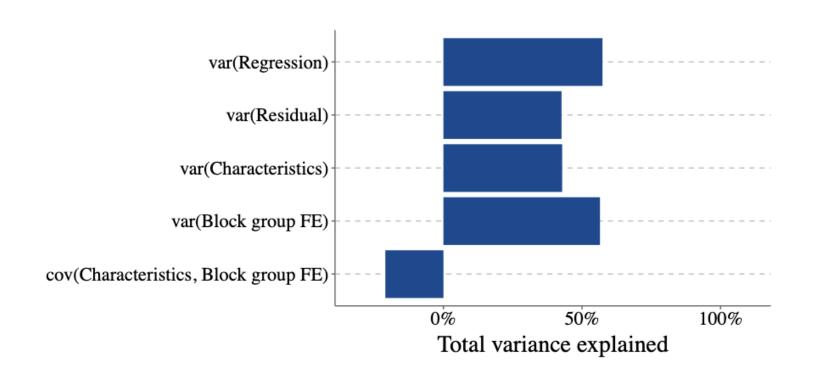
Single-Family Cost Estimates

\$ 2021	All county		С	City		Suburbs	
	2001-07	2008-19	2001-07	2008-19	2001-07	2008-19	
New construction							
Variable cost	163.6	231.6	190.5	240.6	171.0	214.4	
	(3.7)	(3.6)	(5.0)	(4.5)	(4.4)	(4.5)	
Fixed cost (000s)	266.8	170.7	160.9	89.4	209.2	206.7	
	(11.1)	(10.7)	(12.2)	(11.1)	(14.8)	(16.3)	
Lot split (000s)	310.4	77.5	192.7	20.3	242.4	165.8	
	(20.6)	(18.2)	(21.3)	(17.5)	(35.9)	(37.3)	
Renovation							
Variable cost	327.5	334.2	272.8	275.9	344.4	339.8	
	(4.8)	(5.2)	(5.8)	(5.8)	(5.8)	(6.6)	

2021 RS Means: \$227.75 / sq. ft. for single-family homes



Block-Group Effects Explain Only 50% of Variation in Development Probability





Experiment 1: Triplex Upzoning

	Renter-occupied				
	Status quo	Status quo Expected Triplex			
Price per unit	\$151,747	\$186,277	\$164,415	-11.74%	
Price per sq. ft.	\$138.0	\$148.3	\$141.0	-4.94%	
Sq. ft. per unit	1,289	1,356	1,348	-0.58%	
Units	1.833	1.829	1.871	2.34%	

	Owner-occupied			
	Status quo	Status quo Expected Triplex		
Price per unit	\$253,460	\$283,402	\$268,099	-5.40%
Price per sq. ft.	\$183.9	\$188.9	\$183.7	-2.77%
Sq. ft. per unit	1,506	1,577	1,580	0.23%
Units	1.206	1.208	1.247	3.29%



Experiment 2: Reduce Fixed Costs by 25%

	Renter-occupied						
	Status quo	tatus quo Expected Fixed cost					
Price per unit	\$151,625	\$186,133	\$188,638	1.35%			
Price per sq. ft.	\$138.0	\$148.2	\$149.2	0.67%			
Sq. ft. per unit	1,289	1,356	1,362	0.42%			
Units	1.834	1.829	1.828	-0.05%			

	Owner-occupied			
	Status quo	Expected	Fixed cost	Δ
Price per unit	\$253,320	\$283,248	\$286,781	1.25%
Price per sq. ft.	\$183.9	\$188.9	\$189.8	0.48%
Sq. ft. per unit	1,506	1,576	1,586	0.60%
Units	1.206	1.208	1.208	0.00%

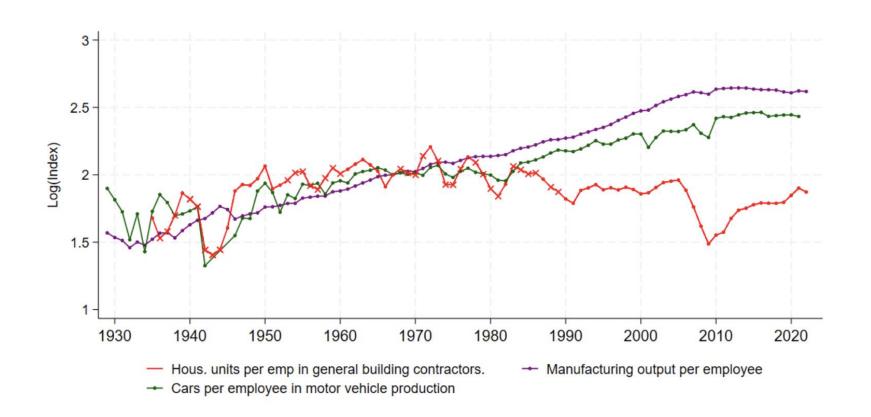


Zoning Reform Takeaways

- Zoning reform is unlikely to provide a silver bullet to the housing affordability crisis
- Details of the reform matter
- Fundamental cost drivers, such as labor and material costs, imply many proposed redevelopment projects fail to pencil, even if zoning allows them
- Innovation needed to provide economies of scale in housing construction

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Housing Construction Productivity Has Stagnated





Source: D'Amico et al. (2024)

Conclusion

- Housing affordability continues to present a major issue across the United States
- Much of the policy discussion has focused on rent control and other tenant protections
 - These have a place, but come with general equilibrium effects
- Low fiscal cost schemes to protect undiversified landlords may facilitate improved access to rental housing and high-opportunity locations
- Zoning constraints are part of the problem, but relaxing them is likely not a silver bullet
- Housing affordability is a complex issue and will almost certainly require a multifaceted, creative solution

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