The Effects of Rent Control Expansion on Tenants, Landlords, and Inequality
Evidence from San Francisco

Rebecca Diamond¹*  Timothy McQuade¹  Franklin Qian¹

¹Stanford University
*NBER

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Rent control as a solution to affordable housing?

Rising rents reignited debate over expanding rent control provisions
- IL, OR, CA considering repealing laws barring cities from rent control
- 5 Bay Area cities voted on rent control in 2016, with it passing in 2 cities

Previous research warns against negative efficiency consequences:
- Housing over-consumption (Olsen (1972), Gyourko and Linneman (1989)), mis-allocation (Glaeser and Luttmer (2003), Sims (2011)), negative neighborhood spillovers (Sims (2007), Autor et al. (2014)), maintenance under-investment (Downs (1988), Autor et al. (2014))

Affordable housing advocates argue tenants greatly value rent control, enabling them to stay in neighborhoods they value
- Incomplete markets leave tenants few ways to insure against rent risk
- Residents with large stocks of neighborhood-specific capital very vulnerable to rent risk
San Francisco rent control began in 1979
- Covered rental units built before June 13, 1979
- Capped annual nominal rent increases within a tenancy but not between tenants

Exempted multifamily housing with 4 units or less
- 44% of 1990 rental housing stock

Small multifamily housing increasingly sold to larger businesses

1994 SF ballot initiative removed exemption
- Barely passed in November 1994
- All multifamily structures with 4 units or less built 1979 or earlier were now subject to rent control
In this paper, we combine:

- **New data**: Near universe of address-level migration data for SF residents from Infutor, linked to assessor data. ID renters, owners, and rent-control status.

- **Natural experiment of rent control expansion**: 1994 ballot initiative suddenly rent controlled all small multi-family structures built prior to 1980.
  - Compare tenants/parcels in buildings built 1900-1979 vs 1980-1990 within same zipcode who moved in prior to law in same year.

- **New simple “diff-in-diff” estimator that identifies dynamic discrete choice model of tenant migration**:  
  - Compare $\Delta$ over time in probabilities of remaining at 1994 address vs. out-migration between treatment and control tenants.
  - Relate these to utility benefits of rent control.
Tenant Effects
- 12% ↑ remaining at 1994 address, 7% ↑ remaining in SF than control
- LLs remove tenants (buyouts or evictions) in most profitable zips:
  - Zips with large rent increases, recent migrants treated by RC more likely to move away
  - Observable amenities (median house price, college share) worse for tenants treated with RC

Property Effects
- 25% ↓ in RC-ed rentals, 8% ↑ in owner-occupancy, 7% ↑ in redevelopment
  - Evade RC: new construction, convert to condo, sell to owner occupants
- Treated properties had 5% higher levels of renovation permits

RC fueled gentrification: Pushed housing stock towards new construction and owner occupants, catering to higher income residents
Ex-post Partial Eq Benefit to Tenants Covered by RC:
- Young (old) HHs benefited on average by $2300 ($6600) each year
- 90% of benefits from below market rent + tenant buyouts
- Small effects from lower moving costs, more neighborhood capital
- Aggregate benefit to ‘94 tenants treated by RC: $2.9 billion

GE Welfare Effects on all renters
- Decreased rental supply increased market rents by 5.1%
- Aggregate welfare loss to renters of $2.9 billion
- 42% of GE welfare loss born by future SF residents
Outline

1 Data
2 Reduced Form Analysis: Tenant Effects
3 Reduced Form Analysis: Property Effects
4 Welfare
5 Conclusion
Data Sources

1. Infutor
   - Entire address history of SF residents between 1990-2016
   - Provides exact street address, dates of residence, name of individual, age, 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 including buyer and seller names

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

San Francisco Rental Data
- SF wide time series provided by Eric Fisher of Experimental Geography
  - Collected historical apartment advertisements back to 1950s
- Use imputation procedure to construct rents at zipcode level
  - Census data to construct relationship between house prices and rents
  - Impute using annual zipcode house price index
Infutor Data Highly Representative of San Francisco Population in 1990 and 2000

\[ \beta = 0.442 \pm 0.026 \]
\[ R^2 = 0.692 \]
\[ \text{Obs} = 127 \]

\[ \beta = 1.145 \pm 0.029 \]
\[ R^2 = 0.898 \]
\[ \text{Obs} = 175 \]

(a) 1990 Census Population

(b) 2000 Census Population

Also match well census tract variation in building age and ownership rates.

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Reduced Form Effects: Quasi-Experimental Design

- **Treatment Group:** Renters living in small multifamily buildings built 1900-1979 at end of 1993

- **Control Group:** Renters living in small multifamily buildings built 1980-1990 at end of 1993
  - Exclude new construction due to selection concerns
  - New buildings only have new tenants

- **Identification:** renters/buildings in treatment group vs. control group not on different trends
  - Include zipcode $\times$ year FE (compare treat vs. control within zip)
  - Include year moved $\times$ year FE (compare treat vs. control within tenancy duration)
  - Use only buildings built 1960-1979 as robustness test
Treated Renters More Likely to Remain at their Address

In medium to long term, treated renters 13% to 20% more likely to remain at 1994 address.
Older, High Turnover Renters Less Likely to Remain in High Appreciation Census Tracts

\[ \beta = -0.107 (0.042) \]

(a) High Rent Appreciation Tracts

\[ \beta = 0.010 (0.033) \]

(b) Low Rent Appreciation Tracts
Tenants Treated with RC Live in Lower Priced Tracts

Had treated tenants remained in 1994 homes, would have lived in higher priced tracts
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15% ↓ in Renters and 8% ↑ in Owners at Treated Buildings

(a) Renters/Average Population 1990-1994

(b) Owners/Average Population 1990-1994
Treated Landlords Redevelop their Properties

25% ↓ in Renters in Rent-Controlled Units, 7% ↑ in Renters in Redeveloped Properties

(a) Renters in Rent-Controlled Buildings

\[ \beta = -0.246 (0.077) \]

(b) Renters in Redeveloped Buildings

\[ \beta = 0.072 (0.023) \]
Treated Landlords Convert to Condo
8% Increase in Condo Conversions, 5% Increase in Renovation Permits

Landlord response fuels gentrification!
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### Welfare Effects of 1994 Rent-Controlled Cohort in 2010 Dollars

<table>
<thead>
<tr>
<th></th>
<th>Young Residents (Age 20-39)</th>
<th>Old Residents (Age 40+)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cumulative</td>
<td>Per Year</td>
</tr>
<tr>
<td>Rent</td>
<td>32,722</td>
<td>1,818</td>
</tr>
<tr>
<td>Payoff</td>
<td>18,650</td>
<td>1,036</td>
</tr>
<tr>
<td>Neighborhood Capital</td>
<td>1,181</td>
<td>66</td>
</tr>
<tr>
<td>Fixed Moving Cost</td>
<td>2,098</td>
<td>117</td>
</tr>
<tr>
<td>Distance of Moves</td>
<td>706</td>
<td>39</td>
</tr>
<tr>
<td>Amenity</td>
<td>1,073</td>
<td>60</td>
</tr>
<tr>
<td>Match Value</td>
<td>-15,308</td>
<td>-850</td>
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<tr>
<td>Total per Person</td>
<td>41,121</td>
<td>2,285</td>
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</table>

- Aggregate PDV welfare benefit to tenants treated by '94 RC: $2.9 Billion
Decreased rental supply increased avg market rents by 5.1%

Aggregate welfare loss to renters of $2.9 billion

42% of welfare losses born by future SF residents
Conclusion

- ‘94 RC HHs gained $2.9 billion from RC, mostly from low rents
- Areas where rents most below market, LLs removed tenants either through buyouts or evictions
  - Evictions: strips away insurance value of RC when tenants need it most
- LLs responded with 6% decline in rental housing supply, transformed the housing stock to cater to higher income HHs, fueling gentrification
- Forcing LLs to provide rent insurance undermines goals of rent control.
- Possible solution: Gov provided rental social insurance
  - Tie insurance payments to neighborhood rents (similar to HUD’s neighborhood FMRs)
  - Allows tenants to move within neighborhood, improving allocative efficiency
- Optimal rent social insurance is a point of future research
New Project: Effect of High-Skilled Firm Entry

- Research question: Do low-skilled workers benefit when high-skilled workers move in due to large firm entry?
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- Research question: Do low-skilled workers benefit when high-skilled workers move in due to large firm entry?
- Sample: follow 45 million local residents from 40,525 census tracts in the decade after the announcement of 391 high-skilled firm entry

Data:
- Infutor
  - Entire address history of 160 million adults who reside in US between 1990–2016
  - Exact street address, dates of residence, name, age, gender, (imputed) race, immigrant, home ownership, education status
- Corelogic
  - Tax assessors' data of property characteristics such as number of bedrooms
- Transaction data: buyer and seller names, addresses, date of sale
- TransUnion
  - Credit score, income estimator, debts and loans
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