

A Research Note on the Prevalence of Housing Eviction Among Children Born in American Cities

Ian Lundberg and Louis Donnelly
Princeton University

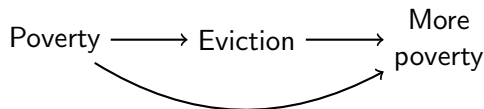
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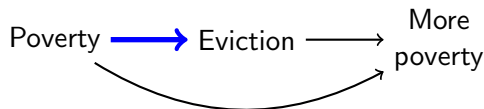
Association for Public Policy Analysis and Management

Slides and source code are available at <https://github.com/ilundberg/slides>. Replication code is available on the Harvard Dataverse: <https://doi.org/10.7910/DVN/BVWFG1>. Draft is forthcoming in *Demography*. Accepted manuscript is available [here](#). We thank Sara S. McLanahan, Brandon M. Stewart, Matthew J. Salganik, three anonymous reviewers, and members of the Stewart Lab and the Fragile Families Working Group for comments on earlier drafts. All errors are our own. Research reported in this publication was supported by the Robert Wood Johnson Foundation and by The Eunice Kennedy Shriver National Institute of Child Health & Human Development of the National Institutes of Health under Award Number P2CHD047879. Funding for the Fragile Families Study was provided through Award Numbers R01HD36916, R01HD39135, and R01HD40421 and by a consortium of private foundations. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Eviction may play a role in the **reproduction of poverty**.

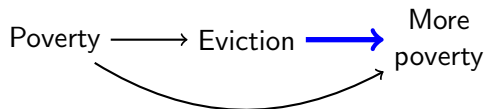


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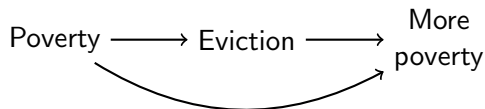
Desmond, Gershonson, & Kiviat 2015

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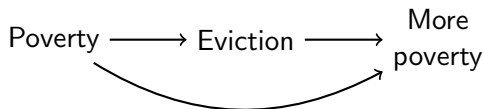


Desmond & Kimbro 2015
Desmond & Shollenberger 2015

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Yet policymakers largely **ignore this problem**.

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What proportion of children born in large U.S. cities in 1998–2000 were ever evicted between birth and age 15?

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- Sampling frame: Births in 1998–2000 in U.S. cities with populations over 200,000
- $N = 4,898$ births in 20 cities
 - 16 cities are a probability sample
 - 4 cities added for funder interests
- Oversample (3:1) of non-marital births
- Interviews with each parent at child age 1, 3, 5, 9, and 15

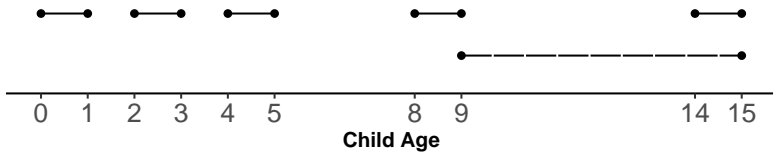
Survey instrument:

In the past 12 months, were you evicted from your home or apartment for not paying the rent or mortgage?

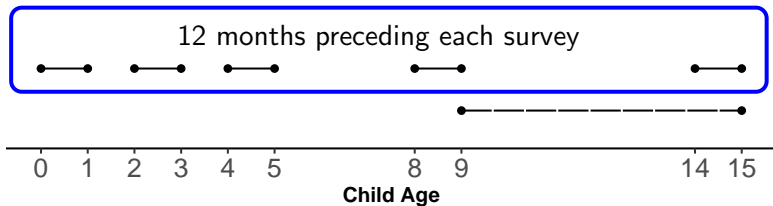
- Reported by mother or father with whom child lives more than half the time



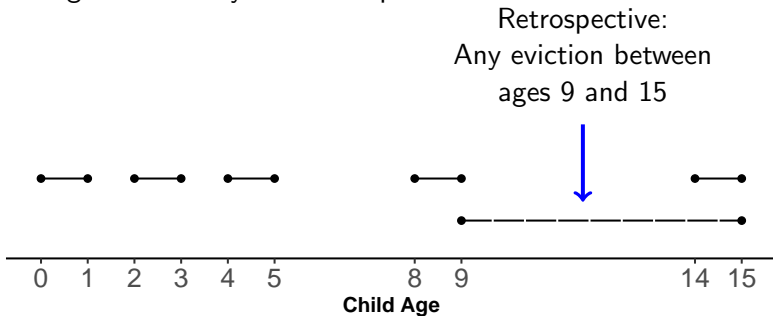
Child ages covered by eviction reports



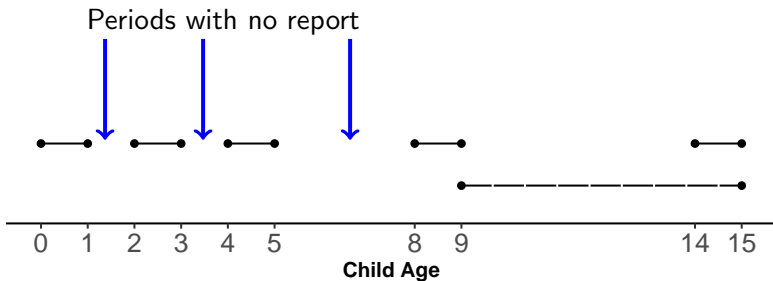
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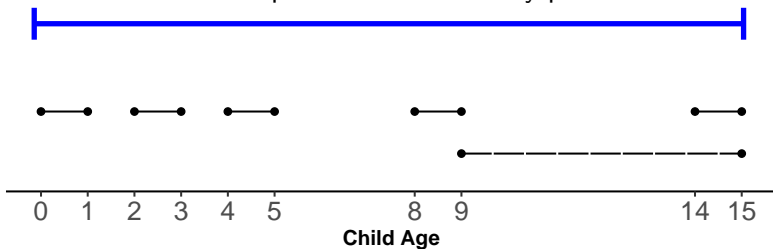


Child ages covered by eviction reports



Child ages covered by eviction reports

Goal: Proportion evicted at any point



b. Three estimates of the proportion ever evicted by age 15**Absolute lower bound**

Estimate 1: 7.9 % (CI: 7.1–8.9 %)

Impute survey nonresponse

**Multiple imputation**

Estimate 2: 9.2 % (CI: 7.3–11.1 %)

Infer prevalence over years when no survey was conducted

**Multilevel logistic regression**

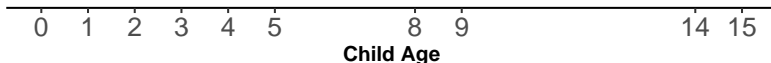
Model fit on five annual reports



15-year prevalence inferred from model parameters



Estimate 3: Overall 15-year prevalence = 14.8 % (CI: 12.6–17.2 %)



Lower bound: Assume

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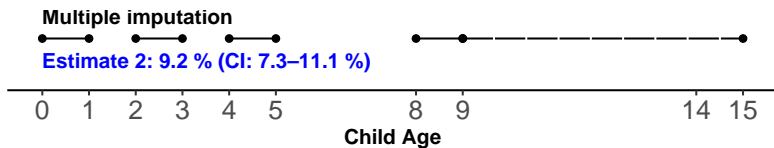
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Eviction
↓

$Y_{c[i[t]]} \sim \text{Bernoulli}(\pi_{c[i[t]]})$ ← Stochastic component

P(Eviction)
↓

Age t for child i born in city c

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Linear predictor

$\eta_{c[i[t]]} = \alpha + \vec{X}_{c[i]} \vec{\beta} + \text{Age}_{c[i[t]]} \gamma + \text{Recession}_{c[i[t]]} \lambda + \delta_c + \epsilon_{c[i]}$

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$$\alpha \sim \text{Cauchy}(-4.5, 1) \quad \{\vec{\beta}, \gamma, \lambda\} \sim \text{Cauchy}(0, 1) \quad \delta_c \stackrel{\text{iid}}{\sim} \text{Normal}(0, \sigma_\delta^2)$$

$$\{\sigma_\delta^2, \sigma_\epsilon^2\} \stackrel{\text{iid}}{\sim} \text{Half-Cauchy}(0, 1)$$

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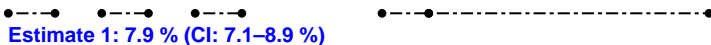
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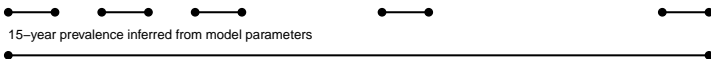
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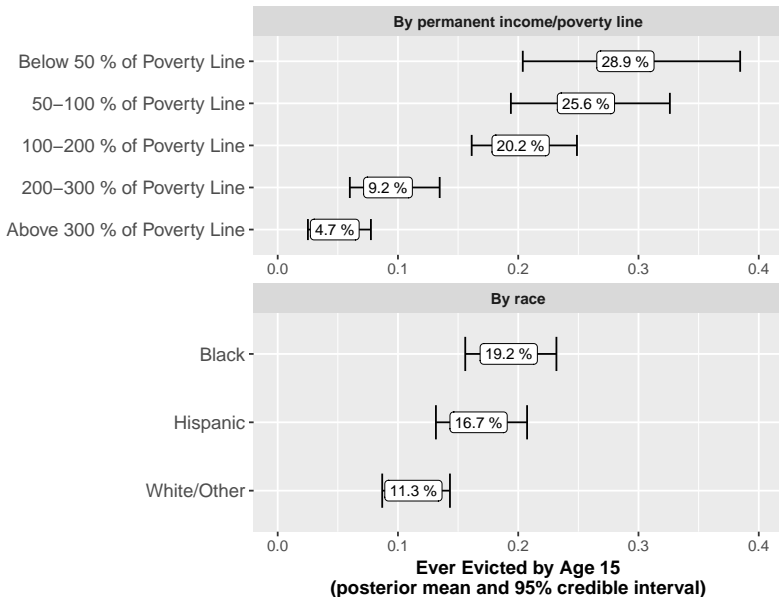
Result: $\hat{\tau}_{\text{PM}} = 14.8 \% \text{ (CI: } 12.6\text{--}17.2 \% \text{)}$

b. Three estimates of the proportion ever evicted by age 15**Absolute lower bound**Impute survey nonresponse
↓**Multiple imputation**Infer prevalence over years when no survey was conducted
↓**Multilevel logistic regression**

Model fit on five annual reports

**Estimate 3: Overall 15-year prevalence = 14.8 % (CI: 12.6–17.2 %)**

Given our model, we can aggregate across the covariate values of specific **subgroups**.



Introduction

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Lower Bound

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Multiply Imputed

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Model-based

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Subgroups

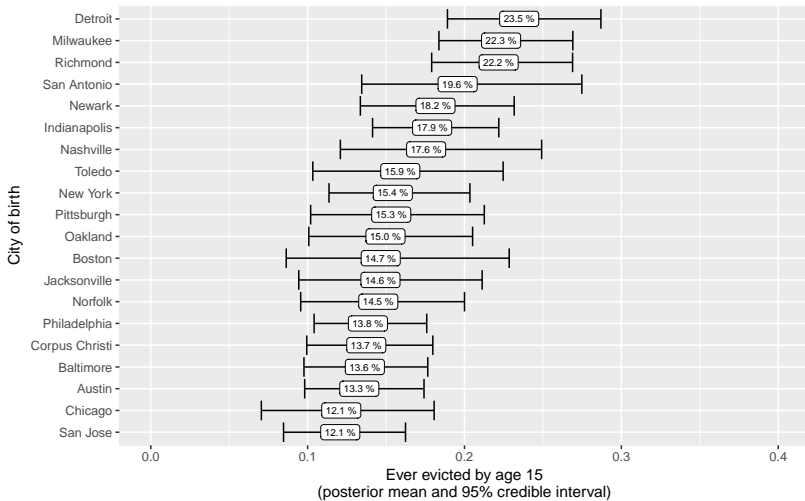
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Limitations

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Conclusion

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 - we will underestimate eviction
- Self-report may understate eviction
 - we will underestimate eviction
- Parametric model may be wrong
 - implication unclear, but robust to random forest

Conclusion

Eviction is

- a **common** experience
 - 1 in 7 children born in large U.S. cities in 1998–2000 were evicted by age 15
- a **stratified** experience
 - 1 in 4 among those born into deep poverty

Policymakers should be concerned about the prevalence of eviction.