Homelessness as Bad Luck: Implications for Research and Policy

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Everybody knows

- Most shelter spells are short, and few are very long (Culhane et al. 2007)
- Many different people experience homelessness in a year (Link et al. 1994, Culhane & Metraux 1998)
- Transitions to homelessness are very difficult to predict (Shinn et al. 1998)
Luck Matters

• Homelessness is part of the stochastic variation in people’s lives.

• This paper is about the implications of this way of looking at homelessness.

• Plan: first, some theory. Then, where does the bad luck come from? Finally, policies to smooth variation.
Part One: Theory

• Hall (1978)
  \[ Ec(t+1) = c(t). \]

Conditions:
- Perfect capital markets
- Quadratic utility
Implications for research

• Current housing is a sufficient statistic for future housing

• In a population with the same distribution of shocks, current housing is the only predictor of future homelessness.

• Otherwise, current housing and correlates of higher order moments predict future homelessness.

• If shocks are symmetrically distributed, false alarm rate has to be at least 50%.
Implications for Policy

• For prevention, predictions are inherently poor; you can’t pick people who are going to be homeless any more than you can pick stocks that will outperform the market.

• Aiding saving may be more important in preventing homelessness than aiding borrowing.
Reinterpreting Shinn et al as a story about stochastic dynamic processes

- They found

Table 1: Distribution of New York City Welfare Population 1988

Thousands of Families

At time 1: Request shelter Don’t request Total

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Request shelter</th>
<th>Don’t request</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>3</td>
<td>244</td>
<td>247</td>
</tr>
<tr>
<td>X</td>
<td>6</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>271</td>
<td>280</td>
</tr>
</tbody>
</table>

- Five years later, about 8% of families that entered shelter and didn’t get subsidized housing were homeless.
My interpretation

• $C(t) = .54 + .74 \ C(t-1) + e(t)$, $e(t)$ distributed $N(0,1)$
• $X=0.5$, $Y=2.3$.
• Homeless if $C(t)<0$.
• If you cut the variance in half, number of homeless families at time 1 falls from 9,000 to 1137.
• To accomplish the same reduction by uplifting, you have to triple the level.
• Smoothing may be a more effective policy than uplifting.
<table>
<thead>
<tr>
<th></th>
<th>Families</th>
<th>Single adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income shocks</td>
<td>11-32%</td>
<td>28-39%</td>
</tr>
<tr>
<td>Health and addiction shocks</td>
<td>10-12%</td>
<td>32-32%</td>
</tr>
<tr>
<td>Relationship shocks</td>
<td>16-28%</td>
<td>10-11%</td>
</tr>
<tr>
<td>Rent shocks</td>
<td>5-51%</td>
<td>1-19%</td>
</tr>
</tbody>
</table>
Comparing volatility of rent and volatility of income

- PSID data in Keys (2008) imply that 13% of HS dropouts and 25% of black women experience a 40% drop in income in a two-year period.
- AHS data indicate that 2-5% of apartments experience an increase in rent of over 40% over a two-year period.
- Apartments that poor people might reasonably occupy are not that different.
Bottom Line on Risks

• Income shocks are probably more important than rent shocks as immediate precursors to homelessness. Income shocks could include health shocks.

• Entirely consistent, though, with current housing consumption as the only predictor (or best predictor) of future homelessness.
Gentrification

• Therefore, would not expect gentrification shocks to be major precursors to homelessness.

• Previous address of most homeless families is a poor neighborhood (as predicted by Hall equation), not a gentrifying neighborhood (Culhane et al. 1996, Wong and Hillier 2001).

• Poor people are not more likely to leave gentrifying neighborhoods than other neighborhoods (Vigdor 2002, Freeman and Braconi 2004, Freeman 2005).

• But gentrification could be produced by changes income distribution that also increase homelessness.
Part Three: Policies to Reduce Shocks

- Policies to mitigate income, health, and relationship shocks in general are beyond the scope of this paper.
- Policies to mitigate rent shocks are not going to make a big difference, usually.
- Rent control is designed to mitigate rent shocks, but its effect on homelessness is theoretically ambiguous.
- Empirically, the consensus is that effect of rent control on homelessness is small; no consensus on direction.
Shared Equity Mortgages

• May make it easier for poor people to insure against physical and market risks involved in owning houses.
• But may not provide as much liquidity insurance as traditional mortgages do—investing partner may fear incentive effects of reduction in equity share.
• That may lower hurdles to getting mortgages.
• No evidence at all.
Subsidized Housing

• Not designed at all as a safety net program, and rarely evaluated in these terms.
• Provides excellent insurance to people who receive subsidies
• Rent geared to income is insurance against income shocks and against rent shocks (although response to income shocks is often slow).
• But poor insurance against physical shocks and may exacerbate relationship shocks.
• Big question: how much of the homelessness-reducing power of subsidized housing is due to the subsidy and how much is due to the insurance?
Subsidized housing in the larger context

• Do entry into and exit from subsidized housing tend to smooth consumption?

• Weak reason to think so: entries coincide with low income and exits are correlated with rising income.

• But since many of the worst off people do not have the opportunity for subsidized housing, the question is open.

• Entitlements would smooth consumption of the average poor person better.
Shelters

• Shelters smooth housing consumption the same way that unemployment insurance smoothes general consumption.

• Shelter spells and unemployment spells are same order of magnitude in length.

• Shelters are harder to defraud than unemployment insurance: eg, harder to live somewhere else and in a shelter than to work off the books and receive unemployment insurance.
## Durations of completed spells (days)

<table>
<thead>
<tr>
<th></th>
<th>Households With Children</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Median</td>
<td></td>
</tr>
<tr>
<td>Public housing</td>
<td>1410</td>
<td>774</td>
<td></td>
</tr>
<tr>
<td>Tenant-based assistance</td>
<td>1245</td>
<td>756</td>
<td></td>
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<tr>
<td>NYC family shelter</td>
<td>770</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Households w/o Children</td>
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<td></td>
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<tr>
<td>Public housing</td>
<td>2235</td>
<td>712</td>
<td></td>
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<tr>
<td>Tenant-based assistance</td>
<td>1092</td>
<td>376</td>
<td></td>
</tr>
<tr>
<td>NYC single shelter</td>
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<td>25</td>
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</tr>
<tr>
<td>Philadelphia adult shelter</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athens, GA shelter</td>
<td>17</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>NSHAPC</td>
<td>761</td>
<td>270</td>
<td></td>
</tr>
</tbody>
</table>
Unemployment spells

• Mean duration of completed spells 1975: 68 days (Clark and Summers 1978)
Implications of the Analogy

• How to find optimal shelter quality.
• Declining quality over a shelter spell if residents are cash-constrained and shelter spells can be reliably measured.
• Placement into subsidized housing should occur immediately on entry under those conditions.
• If shelter spell cannot be measured, many small subsidies better than a few big ones.
Homelessness Prevention

• Wise investment, not picking stocks
• Safety net investments are complements
• Borrowing or saving
• Rent guarantees rather than subsidies
Conclusion

• Levels matter too of course.
• But a lot can be learned by looking at risk.
• Using the information of individual narratives in economic analysis.
• Two approaches to analysis of homelessness: comparative statics (what economists have done), following individuals (what other researchers have done)
• This approach brings them together.