The Economics of Homelessness

Urban Economics

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Picturing the Homeless

What is homelessness?

- **Federal Government Definition**: “lack[ing] a fixed, regular, and adequate nighttime residence”
  - **Homeless**: Street, Car, SRO/Motel, Emergency Shelter, Transitional Housing, Abandoned Building
  - **Not Homeless**: Doubled Up with Family/Friends, Permanent Supportive Housing, Public Housing, Prison

- No one true definition, really concerned about very low levels of consumption of housing
  - Society, individuals, governments define “low”
### Homeless Counts (% of U.S. Population in Parenthesis)

<table>
<thead>
<tr>
<th></th>
<th>Unsheltered</th>
<th>Sheltered</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point in Time</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td>246,374</td>
<td>403,543</td>
<td>649,917</td>
</tr>
<tr>
<td></td>
<td>(0.08%)</td>
<td>(0.13%)</td>
<td>(0.21%)</td>
</tr>
<tr>
<td><strong>Year</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td>1,593,150</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.5%)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Lifetime</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(5.4%)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Annual Homeless Assessment Report, 2010  
<sup>b</sup> Collaborative Psychiatric Epidemiology Surveys, 2001-2003

- Excludes people living in motels, single room occupancy units (SROs), and those “doubled up” with friends or relatives
Homeless Over Time

- **Total Homeless Individuals**
- **Sheltered Homeless Individuals**

**Dept. of Housing and Urban Dev.**
Asked Service Providers to Estimate homeless in Area

**Census Bureau**
Count of Individuals at Shelters (Methodology Not Consistent Across Years)

**Dept. of Housing and Urban Dev.**
One-Night Count of Sheltered and Unsheltered Individuals Conducted by Community Volunteers
Homeless Overrepresent Vulnerable Segments of Society

Source: HUD Point in Time Count Data, 2011
## Sources of Income, 1996

<table>
<thead>
<tr>
<th>Source</th>
<th>Percent of Homeless</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>37%</td>
</tr>
<tr>
<td>Supplemental Security Income</td>
<td>18%</td>
</tr>
<tr>
<td>Parents/Relatives/Friends</td>
<td>15%</td>
</tr>
<tr>
<td>Aid to Families with Dependent Children</td>
<td>9%</td>
</tr>
<tr>
<td>General Assistance</td>
<td>9%</td>
</tr>
<tr>
<td>Social Security Disability Insurance</td>
<td>9%</td>
</tr>
<tr>
<td>Asking for Money on Streets</td>
<td>5%</td>
</tr>
<tr>
<td>Child Support</td>
<td>2%</td>
</tr>
<tr>
<td>Illegal Activities</td>
<td>2%</td>
</tr>
<tr>
<td>Unemployment Compensation</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: National Survey of Homeless Assistance Providers and Clients
<table>
<thead>
<tr>
<th>Housing</th>
<th>Percent of Homeless</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friend’s Home</td>
<td>32%</td>
</tr>
<tr>
<td>Parents/Relatives’ Home</td>
<td>25%</td>
</tr>
<tr>
<td>Hotel/Motel</td>
<td>20%</td>
</tr>
<tr>
<td>Jail/Prison</td>
<td>17%</td>
</tr>
<tr>
<td>Hospital/Nursing Home</td>
<td>13%</td>
</tr>
<tr>
<td>Residential Recovery Program</td>
<td>10%</td>
</tr>
<tr>
<td>Mental Hospital/Psychiatric Ward</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: National Survey of Homeless Assistance Providers and Clients
### Varying Durations of Homelessness

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percent of Homeless</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 Week</td>
<td>5%</td>
</tr>
<tr>
<td>1 Week to 1 Month</td>
<td>8%</td>
</tr>
<tr>
<td>1-3 Months</td>
<td>15%</td>
</tr>
<tr>
<td>4-6 Months</td>
<td>11%</td>
</tr>
<tr>
<td>7-12 Months</td>
<td>15%</td>
</tr>
<tr>
<td>13-24 Months</td>
<td>16%</td>
</tr>
<tr>
<td>25-60 Months</td>
<td>10%</td>
</tr>
<tr>
<td>More than 60 Months</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: National Survey of Homeless Assistance Providers and Clients
Where are the Homeless?

- **Central City**: 71%
- **Suburban/Urban Fringe**: 21%
- **Rural**: 8%

- **All Homeless**
  - **Central City**: 9%
  - **Suburban/Urban Fringe**: 23%
  - **Rural**: 23%

- **All Poor**
  - **Central City**: 43%
  - **Suburban/Urban Fringe**: 34%
  - **Rural**: 23%

## Homeless by City

<table>
<thead>
<tr>
<th>City</th>
<th>Percent of Homeless</th>
<th>Percent of Unsheltered</th>
<th>Percent of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York City</td>
<td>8.0%</td>
<td>1.1%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Los Angeles*</td>
<td>7.1%</td>
<td>11.7%</td>
<td>3.2%</td>
</tr>
<tr>
<td>San Diego*</td>
<td>1.5%</td>
<td>2.2%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Las Vegas*</td>
<td>1.5%</td>
<td>2.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Seattle*</td>
<td>1.4%</td>
<td>1.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Houston*</td>
<td>1.3%</td>
<td>1.8%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Tampa*</td>
<td>1.2%</td>
<td>2.6%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Atlanta*</td>
<td>1.1%</td>
<td>1.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>New Orleans*</td>
<td>1.1%</td>
<td>2.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Chicago</td>
<td>1.1%</td>
<td>0.7%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Dist. of Columbia</td>
<td>1.0%</td>
<td>0.1%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

* Includes county containing city

Source: HUD Point in Time Count Data, 2011
Percent of Homeless who are Unsheltered by State

Source: HUD Point in Time Count Data, 2011
Costs to Homeless

- Susceptibility to disease/higher mortality rates
  - Homeless have 1.6 times greater death rate than comparable non-homeless population (Morrison, 2009)

- Isolation from networks
  - Employment
  - Family/Relatives

- Psychological Effects
  - Extreme stress
  - Mental Illness

- Difficulty accessing health treatment, government benefits
Costs to Society

- **Shelter Costs**
  - $13,000 per bed/year (Wong, Park and Nemon, 2005)

- **Emergency Room Costs**
  - Homeless have 36% longer hospital stays at additional cost of $2,414 (Salit et al, 1998)

- **Court/Jail/Police Enforcement Costs**
  - *Million-Dollar Murray* - Utah police officers documented $100,000 in costs per year for one homeless man

- **Offensive to non-homeless**
Objections to Economic Approach to Homelessness

- The homeless are not rational
- Homelessness is not a choice
- Markets do not apply to homelessness system
  - "The homelessness system in the US is essentially a residual phenomenon. It is largely unregulated, unlicensed, underfunded, and ultimately unsuccessful in ending homelessness."
Notation

- $N =$ Number of Consumers/Households
- $Z_i = \{z_{i,1}, z_{i,2}, \ldots, z_{i,J}\}$ denotes attributes of home where household $i$ sleeps
  - Number of rooms, square footage, distance to city center
  - Number/types of people in home, privacy, whether enclosed
- $P(Z)$ denotes price of home with attributes $Z$
- **Homeless Function**, $H(Z) \in \{0, 1\}$
  - $H(Z) = 1$ if homeless
  - $H(Z) = 0$ if homed
  - $\sum_{i=1}^{N} H(Z_i) =$ Demand for Homelessness
- $X_i =$ Composite good
- $M_i =$ Income
Demand for Homelessness

- Households maximize utility subject to budget constraint

\[
\max_{Z_i, X_i} u_i(Z_i, X_i) \\
\text{s.t. } P(Z_i) + X_i \leq M_i
\]

- Demand function for household \( i \), \( Z_i^*(P, M_i) \)
- Demand for homelessness = \( \sum_{i=1}^{N} H(Z_i^*(P, M_i)) \)
- So homelessness depends on...
  - Preferences, \( u_i \)
  - Income, \( M_i \)
  - Price of housing (conventional and unconventional)
  - Number of individuals, \( N \)
  - Definition of Homelessness, \( H(\cdot) \)
Solution 1: Change Preferences

- Economists typically assume preferences fixed, so relegated to changing incentives
- But efforts made to change preferences
  - Mental health treatment
  - Substance abuse treatment
- Still must incentivize individuals to change preferences
  - Exception: Forced institutionalization of mentally ill (no longer practiced in U.S.)
  - Tying housing and services to treatment has not been successful (Housing First)
- Verdict: Mental health and substance abuse treatment important part of reducing homelessness, but many homeless do not suffer from either, and can be quite expensive to incentivize treatment
Solution 2: Increase Income

- **Advantages**
  - Basic lesson of economics: People prefer cash to in-kind transfers
  - Does not distort housing market
  - Relatively cheap to administer
  - If homelessness is merely symptom of actual problem, extreme poverty, then transferring money is appropriate solution

- **Disadvantages**
  - Extremely Costly - Most very poor people not homeless
  - Some individuals may still choose homelessness

**Verdict:** While transferring cash might be a good solution to poverty, it is far from the most cost-effective way of reducing homelessness
Solution 3: Decrease Price of Housing

- Effect of housing prices on homelessness focus of economics literature
  - Rental Cost: Bohanon (1991); Honig and Filer (1993); O’Flaherty (1996)
  - Rent Control Laws: Grimes and Chressanthis (1997)
  - Subsidized Housing: Early and Olsen (2002)
  - Homeless Shelters: Cragg and O’Flaherty (1999); O’Flaherty (2009)

- Evidence suggests that decreasing price of housing reduces homelessness, but only modestly

- Next - programs which decrease price of housing
Major Housing Programs (non-homeless specific)

- **Housing Vouchers**
  - A little over 2 million households currently enrolled
  - Household takes voucher with them
  - Landlords not forced to participate
  - Households pay 30% of income for rent (government pays rest)
  - Long waiting lists (often several years wait)

- **Public Housing**
  - A little over 1 million households currently enrolled
  - Government operated units
  - Problems have lead to declining stock

- **Low Income Housing Tax Credit**
  - Tax credit for developers promising to rent to low income households at restricted rents
  - Very costly in terms of tax revenue, much of benefit may accrue to developers
## Housing Programs Targeted to Homeless

<table>
<thead>
<tr>
<th></th>
<th>Emergency Shelter</th>
<th>Transitional Housing</th>
<th>Permanent Supportive Housing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median Size</strong></td>
<td>20 beds</td>
<td>17 beds</td>
<td>16 beds</td>
</tr>
<tr>
<td><strong>Form of Housing</strong></td>
<td>Communal sleeping closed daytime</td>
<td>Private living full-time</td>
<td>Private living full-time</td>
</tr>
<tr>
<td><strong>Length of Stay</strong></td>
<td>1-60 days</td>
<td>6-24 months</td>
<td>Indefinite</td>
</tr>
<tr>
<td><strong>Conditions of Use</strong></td>
<td>Minimal</td>
<td>Yes</td>
<td>Minimal</td>
</tr>
<tr>
<td><strong>Additional Services</strong></td>
<td>Varies</td>
<td>Job training, housing search</td>
<td>Mental health, substance abuse treatment</td>
</tr>
</tbody>
</table>
Cost of Homeless Programs: Average Cost Per Bed

Source: Author’s Calculations via HUD Inventory Count, 2009; Tax Form 990 Data from NCCS
Size of Homeless Programs

Source: HUD Inventory Count, 2009
Funding of Homeless Programs

Source: Author’s Calculations via HUD Inventory Count, 2009; Tax Form 990 Data from NCCS
Shelter Beds Over Time

Source: HUD Inventory Count, 2005-2011
Effectiveness of Decreasing Price of Housing

- Major housing programs likely have only small effect on homelessness
  - Serve much broader population
  - Do not have large effect on housing rents
  - May be worthwhile since serve many poor households, although cash transfers may be more desirable for these households

- Homeless assistance programs have large effect on homelessness, but give rise to moral hazard
  - Emergency shelters keep households off the street
  - Transitional housing programs help users re-enter labor and housing markets
  - Permanent supportive housing programs provide stable living environment for chronically homeless
  - Moral Hazard: More desirable programs increase demand, which increases costs and potentially homelessness
    - Dinkin’s Deluge - O’Flaherty (2009)
Solution 4: Increase Price of Homelessness

- Potentially cheaper way to decrease homelessness is to increase its price
  - Laws/ordinances “criminalizing homelessness”
    - Prohibition on sleeping in public areas
    - Prohibition on begging in public areas
    - Prohibition on camping
    - Prohibition on sitting/lying in public areas
  - Street sweeps
  - Availability of public bathrooms

- Can induce households to move into low quality shelters or double up with others (or move to another city)
- Makes the homeless worse off
Laws Restricting Sleeping in Public Places

Source: HUD Point in Time Count Data, 2011; National Law Center on Homelessness and Poverty, 2011
## Effect of January Temperature on Existence of Laws

<table>
<thead>
<tr>
<th></th>
<th>(1) Sleeping Law</th>
<th>(2) Begging Law</th>
<th>(3) Camping Law</th>
<th>(4) Sitting or Lying Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>0.0105***</td>
<td>-0.00115</td>
<td>0.00938**</td>
<td>0.00624*</td>
</tr>
<tr>
<td></td>
<td>(0.00305)</td>
<td>(0.00249)</td>
<td>(0.00293)</td>
<td>(0.00314)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.200</td>
<td>0.858***</td>
<td>0.334**</td>
<td>0.209</td>
</tr>
<tr>
<td></td>
<td>(0.115)</td>
<td>(0.0941)</td>
<td>(0.111)</td>
<td>(0.119)</td>
</tr>
<tr>
<td>Observations</td>
<td>115</td>
<td>115</td>
<td>115</td>
<td>115</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.095</td>
<td>0.002</td>
<td>0.083</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
Solution 5: Export the Homeless

- Given cost of homelessness and difficulties with all solutions, incentive for cities to encourage homeless to move away
  - Homeless may be more mobile than poor population more generally if fewer ties to city

- Evidence
  - Purchasing bus tickets for homeless
  - Laws “criminalizing homelessness” might be attempt to drive out homeless
  - Tendency of cities to fund emergency shelters vs. long term shelters might reflect aversion to creating ties with the homeless

- Not actually a solution to homelessness for entire country
  - Just moves homeless around
  - Inefficient - makes cities worse off
Proportion of Individuals Moving to Current City by Month of Homelessness

Source: National Survey of Homeless Assistance Providers and Clients; U.S. Census Bureau
Proportion of Individuals Living in City where Homeless Spell Began

Source: National Survey of Homeless Assistance Providers and Clients
Proportion of Individuals Moving to Current City by Reason

Source: National Survey of Homeless Assistance Providers and Clients