Income Diversity in Neighborhoods and Very Low-Income Families

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Introduction

- Increasing concern about the social ills engendered by neighborhoods inhabited mainly by families with limited resources

- Whether caused by market forces or misguided housing policy, consensus that they represent a serious problem

- Starting in 1990s, federal housing policy focused on deconcentration of VLI families

- Little systematic description and analysis of economically diverse neighborhoods and the degree to which VLI families live in them
Research Questions

- What is a mixed income neighborhood?

- How much neighborhood income diversity is present in the 100 largest U.S. metropolitan areas in 2000?

- How has the number and share of mixed income neighborhoods changed from 1970 to 2000?

- What is the average income mixture in the neighborhoods in which VLI families reside?

- What higher income groups are typically present in neighborhoods occupied by VLI families?
Data Parameters

- Spatial Coverage
  - Primary Units of Analysis
    - Census Tracts
  - Secondary Units of Analysis
    - 100 largest U.S. Metropolitan areas (in 2000)

- Temporal Coverage
  - 1970 to 2000
  - Decadal increments

- Special Compilation of Census Data
  - Neighborhood Change Database (NCDB)
Methodology

- Family and Neighborhood Income Typology
  - Categories based on family income distribution
  - Calculated using area median income for metropolitan areas (AMI)

- 6 Income Categories
  - Very Low Income (VLI): earning 50% or less of AMI
  - Low Income (LI): earning 50% - 80% of AMI
  - Moderate Income (MI): earning 80% - 100% of AMI
  - High-Moderate Income (HMI): earning 100% - 120% of AMI
  - High Income (HI): earning 120% - 150% of AMI
  - Very High Income (VHI): earning over 150% of AMI
Methodology

- **Statistical Measures**
  - **Entropy Index**
    - Measures the evenness of the distribution of groups across space
    - Multi-group comparison capabilities
    - Varies between 0 and 1 (higher values indicate more diversity)

- **Exposure Index**
  - Measures the exposure of one group to another
  - Limited to comparisons of two groups
  - Varies between 0 and 1 (higher values indicate increased exposure between groups)

\[
H_i^* = \frac{H_i}{\ln M} = - \frac{\sum_{m=1}^{M} \pi_{im} \ln \pi_{im}}{\ln M}
\]

\[
x P^* = \sum_{i=1}^{n} \frac{x_i y_i}{X t_i}
\]
Results

What is a *mixed income* neighborhood?

- **High Diversity**: 4 income groups at 17% each and 1 income group at 33%
  - Entropy $\geq 0.87$
- **Moderate Diversity**: 3 income groups at 17% each and 1 income group at 50%
  - Entropy $\geq 0.69$ and $< 0.87$
- **Low Diversity**: 1 income group at 67% and 2 income groups at 17% each
  - Entropy $\geq 0.48$ and $< 0.69$
- **Not Diverse**:
  - Entropy $< 0.48$
Results

How many mixed income neighborhoods are there in the 100 largest Metro Areas in 2000?

- 91% of all neighborhoods are mixed income in 2000 (N=35,016)
  - Values range from 100% to 84.3%
  - Mean of 92.5% and median of 92.6%

- Largest shares
  - Vallejo, CA PMSA (100%)
  - Scranton, PA MSA (99.5%)

- Smallest shares
  - New York, NY PMSA (84.3%)
  - Newark, NJ PMSA (84.6%)
Results

How many mixed income neighborhoods are there in the 100 largest Metro areas in 2000?

Neighborhood Diversity Type, 2000

- High Diversity (Mixed-Income): 66%
- Moderate Diversity (Mixed-Income): 25%
- Low Diversity: 8%
- Not Diverse: 1%
Results

How has the number and share of mixed income neighborhoods changed over the 1970-2000 period?

- Only 14 of the 100 largest metro areas had a share increase in mixed income neighborhoods
- Very few experienced increased shares of high-diversity neighborhoods
- Most metros experienced increased shares of not-diverse, low-diversity and moderate-diversity neighborhoods
Results

*How has the number and share of mixed income neighborhoods changed over the 1970-2000 period?*

<table>
<thead>
<tr>
<th></th>
<th>NOT DIVERSE</th>
<th>LOW DIVERSITY</th>
<th>MODERATE DIVERSITY</th>
<th>HIGH DIVERSITY</th>
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</thead>
<tbody>
<tr>
<td>1970</td>
<td>0.6</td>
<td>4.0</td>
<td>16.1</td>
<td>79.3</td>
</tr>
<tr>
<td>1980</td>
<td>1.1</td>
<td>5.7</td>
<td>18.8</td>
<td>74.3</td>
</tr>
<tr>
<td>1990</td>
<td>1.8</td>
<td>7.7</td>
<td>22.0</td>
<td>68.4</td>
</tr>
<tr>
<td>2000</td>
<td>1.4</td>
<td>7.6</td>
<td>24.8</td>
<td>66.2</td>
</tr>
<tr>
<td>Change, 1970-2000</td>
<td>0.8</td>
<td>3.6</td>
<td>8.7</td>
<td>-13.1</td>
</tr>
<tr>
<td>Change as % 1970</td>
<td>140.63</td>
<td>90.72</td>
<td>54.04</td>
<td>-16.56</td>
</tr>
</tbody>
</table>
Results

What is the average income mixture in the neighborhoods in which VLI families reside?

- VLI families are evenly exposed to LI and VHI families
- VLI families are more likely to be exposed to VHI families than LI families are, but LI families are more likely to be exposed to MI and HMI families than VLI families are

<table>
<thead>
<tr>
<th></th>
<th>Moderate Income Families</th>
<th>High-Moderate Income Families</th>
<th>Very High Income Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low-Income Families</td>
<td>0.1205</td>
<td>0.1024</td>
<td>0.2249</td>
</tr>
<tr>
<td>Low-Income Families</td>
<td>0.1540</td>
<td>0.1291</td>
<td>0.1890</td>
</tr>
</tbody>
</table>
Results

What is the average income mixture in the neighborhoods in which VLI families reside?

Exposure of VLI Families to Other Income Types, 2000
Results

What higher-income groups are typically present in neighborhoods occupied by VLI families?

- Neighborhoods with higher median incomes have lower shares of VLI families
- Between 1970 and 2000, VLI families increased their share in all neighborhood types, including VHI neighborhoods
- VHI families increased their share in neighborhoods with median incomes below the metropolitan median
Results

What higher-income groups are typically present in neighborhoods occupied by VLI families?

DISTRIBUTION OF FAMILY INCOME TYPES BY NEIGHBORHOOD TYPE, 2000

<table>
<thead>
<tr>
<th>Neighborhood Type</th>
<th>Very Low Income</th>
<th>Low Income</th>
<th>Moderate Income</th>
<th>High Moderate Income</th>
<th>High Income</th>
<th>Very High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHI</td>
<td>5.5</td>
<td>1.1</td>
<td>4.7</td>
<td>7.5</td>
<td>19.3</td>
<td>58.9</td>
</tr>
<tr>
<td>HI</td>
<td>7.5</td>
<td>8.3</td>
<td>12.0</td>
<td>11.7</td>
<td>14.3</td>
<td>24.6</td>
</tr>
<tr>
<td>HMI</td>
<td>19.2</td>
<td>12.5</td>
<td>15.1</td>
<td>15.1</td>
<td>17.1</td>
<td>21.5</td>
</tr>
<tr>
<td>MI</td>
<td>28.7</td>
<td>12.6</td>
<td>12.7</td>
<td>10.9</td>
<td>10.2</td>
<td>15.7</td>
</tr>
<tr>
<td>LI</td>
<td>41.5</td>
<td>12.4</td>
<td>7.5</td>
<td>7.0</td>
<td>6.3</td>
<td>11.3</td>
</tr>
<tr>
<td>VLI</td>
<td>61.8</td>
<td>9.3</td>
<td>7.0</td>
<td>7.5</td>
<td>6.1</td>
<td></td>
</tr>
</tbody>
</table>
Policy and Social Implications

- Challenge the notion that VLI families live in only homogeneous neighborhoods
- Although there are still too many concentrated poverty neighborhoods, VLI families do seem to be dispersing into neighborhoods with diverse income mixing
- Interesting to study outcomes for VLI families residing in neighborhoods with VHI families