Measuring Community Walkability for Children

Presentation to the Consortium to Lower Obesity in Chicago Children
September 14, 2004
Measuring Community Walkability for Children

The Center for Neighborhood Technology:

- Advocacy, public policy
- Environmental and economic development focus
- Research and tool creation
- A market-place innovator
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Purpose of the grant

• Develop a methodology to assess how parental/caregiver perception(s) compare to other measures of walkability
  – Parents who perceive streets as unsafe may discourage walking
  – Reduced physical activity is linked to overweight or obesity in children and adults
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• TASK (Transportation that is Active and Safe for Kids) conducted focus groups with parents in 2002

• Measurements of community walkability allow us to compare parent perceptions of potential danger to objective data.
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• Assessment of environment around four schools in two communities:
  – W. Garfield Park
    • Delano
    • Our Lady of the West Side
  – Uptown/Edgewater
    • Goudy
    • St. Ita Religious Education Center
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• Other TASK schools
• Ashburn
  – Dawes 3810 W. 81st Place
  – St. Bede the Venerable 8200 S. Kostner Ave.
• West Town
  – Von Humboldt Elementary 2620 W. Hirsch Ave.
  – St. Mark's 2510 W. Cortez St.
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- Data collected
  - Walkability audits by CNT staff
  - Official pedestrian/vehicle crashes
  - Unofficial crime information

![Diagram showing walkability audit and crime information](image)

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– The measures had their limitations though
  • Time periods differed
  • Geographic territory differed
  • Some data were official, others were preliminary
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- Time periods differed
  - Pedestrian/vehicle crash data – four years of data from 1999 to 2002.
  - Crime data harvested from police I-CAM website:
    - 8 months of data for each of the 8 TASK schools, from 2003 and 2004
    - 5 months of data for each of the 7 comparison schools, 2003 and 2004.
  - Walkability audits at four schools conducted in late 2003 and early 2004.
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– Geographic territory differed

<table>
<thead>
<tr>
<th>2-3 Block Radius</th>
<th>&lt; ½ Mile Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walkability Audit</td>
<td># of Pedestrian/Vehicle Crashes Over Four Years</td>
</tr>
</tbody>
</table>

< One Mile Radius
Average # Monthly Crimes Potentially Affecting Students
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– Degree of finality of police data differed.
  • Crash statistics were official CPD figures
  • Crime statistics were initial reports to CPD, subject to change
    – i.e., charges may be dropped or an assault may change to a murder charge if a victim succumbs.
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— In spite of complications with the scope and timing of the data, useful conclusions can be drawn, substantively and methodologically.
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• Focus Group Concerns
  – West Garfield Park
    • Gangs in the neighborhood (77.3%)
    • Traffic too dangerous (54.5%)
  – Uptown/Edgewater
    • Kids have to cross too many streets (61.9%)
    • Traffic too dangerous (57.1%)
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- Parent perceptions about traffic were borne out in these communities
  - Ninety percent of Chicago Public School areas experienced fewer pedestrian crashes than Goudy and Delano*
  - Median annual crashes within ½ mile of Chicago Public Schools – 22
  - Delano – 51; Our Lady of the West Side – 39; Goudy – 35; and St. Ita – 38.

*among elementary schools outside the Central Business District
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• Parent perceptions about crime were borne out in these communities
  – Average incidence of relevant (daytime, outdoor, non-domestic) crime ranged from an annualized rate of 43 to 480 at fifteen schools
    • Our Lady - 408
    • Delano - 360
    • Goudy - 300
    • St. Ita - 216
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- Parental concern about traffic crashes and crime reflect an accurate impression of actual risk for these communities.

- What nuances of difference are there between the school areas?
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West Garfield Park

- Delano - north of Eisenhower Xway; Our Lady - south of Xway.
- African-American, low/moderate income.
- Blocks audited: Delano – 12; Our Lady - 8
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West Garfield Park

• Delano Area
  – Residential streets with lower traffic volume
  – Abandoned storefronts and vacant lots
  – Wide commercial streets, mid-block crossings
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West Garfield Park

• Our Lady of the West Side Area
  – School embedded within residential streets
  – Zebra crossings, “roundabout”
  – Sidewalks at greater distance from street
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## West Garfield Park

<table>
<thead>
<tr>
<th>School/Location</th>
<th>Pedestrian/vehicle crashes per 100,000 (total population)</th>
<th>Crimes against persons (daylight, outdoor) per 100,000 (total population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delano Elementary 3937 W. Wilcox</td>
<td>431</td>
<td>832</td>
</tr>
<tr>
<td>Our Lady of the West Side 3900 W. Lexington</td>
<td>261</td>
<td>891</td>
</tr>
</tbody>
</table>

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Uptown

- Densest area in the city, multicultural.
- High commercial occupancy, high vehicle and pedestrian volumes
- Blocks audited: Goudy – 10; St. Ita – 10
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Uptown

• Goudy Area
  – School is on but separated from Foster
  – Narrower streets with longer walk signals
  – Adequate to generous sidewalks, usually three or more feet from street
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Uptown

• St. Ita Area
  – Predominantly multi-family residential
  – High aesthetics: tree coverage, gardens and landscaped parkways.
  – The only three-street intersection in study
## Measuring Community Walkability for Children Uptown

<table>
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<tr>
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<th>Pedestrian/vehicle crashes per 100,000 (total population)</th>
<th>Crimes against persons (daylight, outdoor) per 100,000 (total population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goudy Elementary 5120 N. Winthrop</td>
<td>133</td>
<td>355</td>
</tr>
<tr>
<td>St. Ita Religious Education Center 5525 N. Magnolia</td>
<td>130</td>
<td>259</td>
</tr>
</tbody>
</table>
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• Preliminary conclusions
  – Parental perceptions of danger are realistic
    • W. Garfield Park emphasis on both traffic and crime is realistic
      – SCRIPTS data show hospitalizations for both Bike/Ped Injury and Firearm Assault are very high in WGP, with firearm hospitalization twice as likely as traffic hospitalization
    • Uptown emphasis on traffic risk is realistic
      - SCRIPTS data show likelihood of hospitalization for traffic injury is twice as high as firearm assault
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• Useful conclusions can be drawn from the methodology. Modifications should include:
  – Use consistent, official crime/crash data with same perimeter
  – Use attendance boundary maps to select audit streets
  – Time traffic/pedestrian counts electronically
  – Select control schools with low crime & crash exposure for comparison
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• Thanks
  – To CLOCC for the opportunity to do the study
  – And to you for being our preview audience