Measuring the Effects of Crime on Walking

A Study by the Alan M. Voorhees Transportation Center
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Measuring the Effects of Crime on Walking in New Jersey

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Rutgers
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The Study Report
• Walking is beneficial to both physical and mental health (proven beyond doubt)
• Benefits can be achieved by walking anywhere
• Yet many people do not walk at all
• People in low-income communities are more walkable
• People there also have more ailments such as obesity & CVD
• Concern among some that people walk less there because of crime
Walking in Less-Privileged Areas - Literature

- People walk more for transport but less for exercise
- People walk more in high-crime neighborhoods
- Some are appalled

- Theories
  - People walk more because of destinations
  - Activities that generate walking also generate crime
Relation between Crime and Walking

![Graph showing the relationship between crime rate and walking. The actual trend line is higher than the expected trend line.]

- Low Crime (LC)
- Medium Crime (MC)
- High Crime (HC)
Survey in Three Cities

1,173 persons responded
We also Found what Others Found!

![Graph showing the relationship between walking and crime rate. The graph shows two lines: one labeled 'EXPECTED' and another labeled 'ACTUAL'. The 'EXPECTED' line is green and downward sloping, indicating a decrease in crime rate with increased walking. The 'ACTUAL' line is red and downward sloping as well, suggesting a similar relationship.]
Two Ways to Conceptualize

Walking $\iff$ a, b, c, d (at the same time)

Walking $\iff$ a $\iff$ b, c $\iff$ d (sequentially)

Causation $\neq$ Association
Structural Equation – Leisure Walk

**DAYTIME**

**Significant at 1% level**

* Significant at 5% level
Structural Equation – Transport Walk

** Significant at 1% level

AFTER DARK
Overall Conclusion

Walking

Crime rate

EXPECTED
ACTUAL

Walking

Crime safety

EXPECTED
ACTUAL
<table>
<thead>
<tr>
<th>Improvement</th>
<th>Bloomfield</th>
<th>Newark</th>
<th>Verona</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better lighting</td>
<td>45.8</td>
<td>45.9</td>
<td>38.1</td>
<td>45.1</td>
</tr>
<tr>
<td>Increased police presence</td>
<td>15.3</td>
<td>42.1</td>
<td>8.5</td>
<td>33.3</td>
</tr>
<tr>
<td>Clean, well-maintained neighborhood with trees and plantings</td>
<td>27.1</td>
<td>49.2</td>
<td>11.0</td>
<td>40.9</td>
</tr>
<tr>
<td>Neighborhood watch program</td>
<td>15.3</td>
<td>30.0</td>
<td>3.4</td>
<td>24.4</td>
</tr>
<tr>
<td>Community events</td>
<td>25.4</td>
<td>35.0</td>
<td>18.6</td>
<td>31.5</td>
</tr>
<tr>
<td>Crackdown on crime</td>
<td>8.5</td>
<td>34.8</td>
<td>1.7</td>
<td>26.2</td>
</tr>
<tr>
<td>More people and businesses open on the street</td>
<td>20.3</td>
<td>32.1</td>
<td>15.3</td>
<td>28.0</td>
</tr>
<tr>
<td>Security cameras</td>
<td>24.6</td>
<td>39.8</td>
<td>13.6</td>
<td>34.1</td>
</tr>
</tbody>
</table>

Note: Percentages do not add to 100% because multiple strategies could be selected
Benefits of Safe Sidewalks

Reducing crime can also improve physical and mental health

By Charles Brown, Dana Davis, Ph.D., James Sinclair, and Susan Blickstein, Ph.D.

Alan M. Voorhees Transportation Center, Rutgers University

A large number of studies throughout the developed world have shown that regular walking can promote both physical and mental health. This leads to a healthier and better quality of life, which can result in reduced healthcare costs and increased productivity. The benefits of walking are well-established, and it is recommended for all ages and fitness levels. However, walking can be limited for people who live in urban areas where sidewalks are not available or are unsafe due to crime or other hazards.

A new study by researchers at Rutgers University has found that safe sidewalks can reduce crime rates in neighborhoods. The study analyzed data from 1,217 neighborhoods in New Jersey and found that neighborhoods with more sidewalks had lower crime rates. The study also showed that neighborhoods with more sidewalks had higher property values and lower rates of hospitalization for mental health issues.

The researchers believe that the findings could have implications for urban planning and policy-making. They suggest that investments in safe sidewalks could lead to improved public health, reduced healthcare costs, and increased economic activity. The study also highlights the importance of creating safe and accessible environments for all members of society, including those with disabilities or other mobility challenges.

Additional Sources

Rutgers University magazine

Health & Place journal