Can A School’s Location Make A Kid Fat?

Arizona Department of Transportation
Safe Routes To School

Approved by Congress in 2005

$900 million to States

Goal: make it safer and easier for K-8 students to walk and bike to school.
Active School Neighborhood Checklist

An easy-to-use, robust checklist to gauge the physical activity POTENTIAL of existing and proposed school sites
Active School Neighborhood Checklist

The correlation between the built environment, physical activity, and health

Low ASNC score High

Low Physical activity ‘available’ High

High Weight/BMI Low

Low Academic Performance High
Active School
Neighborhood Checklist

Our hypothetical scenarios:

Scenario A – Rural community

Scenario B – Urban community
ASNC Scenarios
Scenario A – Rural community

- Sparse population
- No nodal development
- Very small downtown
- Few sidewalks
- Large consolidated school 3 miles from town
ASNC Scenarios
Scenario B - Urban (good b.e.)

- Dense population
- Some arterial streets
- Neighborhood schools
- Sidewalks prevalent
- Mid-block crossings
- Large downtown, nodal development
- Small blocks, 'grid' street pattern
Active School Neighborhood Checklist

- Supportive Programs and Policies
- Walking/Bicycling Zone
- School and Property
- Street Profile
- Pedestrian and Bike Facilities and Safety
- Remedial Pedestrian and Bike Facilities
- Connectivity and Convenience
Active School Neighborhood Checklist

Supportive Programs and Policies

- Safe Routes To School
- School and Planning
- Health and Wellness
- Transportation and Safety
Active School Neighborhood Checklist

Walking/Bicycling Zone

Example:

This middle school enrollment area exceeds 1.0 mile in radius and creates a prohibitively long walking/bicycling trip for students who live in the shaded areas.

If homes/residents are dispersed, the enrollment area necessarily must be larger.
Active School Neighborhood Checklist

School and Property

Sprawling campus

Neighborhood school

What does the physical campus look like?
What is the enrollment and campus size?
Large and/or closed campuses are barriers.
Active School Neighborhood Checklist

School and Property

How does the school interface with the public streets?

Type 1

Type 2

Type 3
Active School Neighborhood Checklist

Street Profile

What do streets and traffic look like around the school site?
Active School Neighborhood Checklist

Pedestrian & Bicycle Facilities and Safety

Are pedestrians and bicyclists accommodated?
Are they welcomed?
What are the school, district, and/or town doing to remediate poor existing conditions?
Active School Neighborhood Checklist

Connectivity and Convenience
Active School Neighborhood Checklist

Connectivity and Convenience

This is about proximity, ‘connectedness,’ and destinations

Cul-de-sacs, dead-end streets, and gated communities can be barriers to pedestrian and bicycle travel
How Scenarios A, B, C & D scored on the complete ASNC

<table>
<thead>
<tr>
<th>Scenario</th>
<th>ASNC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>8/113</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
</tr>
<tr>
<td>Suburban</td>
<td>36/113</td>
</tr>
<tr>
<td>Scenario B</td>
<td>86.5/113</td>
</tr>
<tr>
<td>Urban (good b.e.)</td>
<td></td>
</tr>
<tr>
<td>Urban, poor b.e.</td>
<td>15/113</td>
</tr>
</tbody>
</table>
# ASNC and Body Mass Index

<table>
<thead>
<tr>
<th>Scenario</th>
<th>ASNC</th>
<th>BMI</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>- 8/113</td>
<td>28.7</td>
<td>Coolidge, Winslow, St. David</td>
</tr>
<tr>
<td>Rural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban, poor b.e.</td>
<td>15/113</td>
<td>28.1</td>
<td>Cen. Phoenix (2), N. Phoenix</td>
</tr>
<tr>
<td>Suburban</td>
<td>36/113</td>
<td>25.6</td>
<td>Phoenix, Glendale (2)</td>
</tr>
<tr>
<td>Scenario B</td>
<td>86.5/113</td>
<td>20.8</td>
<td>Cen. Phoenix, W. Phoenix. S. Phoenix</td>
</tr>
<tr>
<td>Urban (good b.e.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Interpreting BMI

<table>
<thead>
<tr>
<th>Scenario</th>
<th>ASNC</th>
<th>BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>-8</td>
<td>28.7</td>
</tr>
<tr>
<td>Urban (poor b.e.)</td>
<td>15</td>
<td>28.1</td>
</tr>
<tr>
<td>Suburban</td>
<td>36</td>
<td>25.6</td>
</tr>
<tr>
<td>Urban (good b.e.)</td>
<td>86.5</td>
<td>20.8</td>
</tr>
</tbody>
</table>
Arizona schools

18 of the 22 fattest schools in Arizona are **high schools** (BMIs 30.4 – 35.1)

This is consistent with built environment logic – but why?
Arizona schools

18 of the 22 fattest schools in Arizona are **high schools** (BMIs 30.4 – 35.1)

This is consistent with built environment logic – but why?

- Huge enrollment boundaries
Arizona schools

18 of the 22 fattest schools in Arizona are high schools (BMIs 30.4 – 35.1)

This is consistent with built environment logic – but why?

- Huge enrollment boundaries
- Located on busy arterial streets
Arizona schools

18 of the 22 fattest schools in Arizona are high schools (BMIs 30.4 – 35.1)

This is consistent with built environment logic – but why?

- Huge enrollment boundaries
- Located on busy arterial streets
- High schools don’t require P.E.
www.activeschoolchecklist.com
So,

Can A School’s Location Make A Kid Fat?