Scoring for the Neighborhood Environment Walkability Scale – Abbreviated (NEWS-A)
Updated: September 24, 2007

The NEWS-A is an abbreviated version of the Neighborhood Environment Walkability Scale (NEWS) (see http://www.drjamessallis.sdsu.edu/measures.html; Saelens, B.E., Sallis, J.F., Black, J., Chen, D. (2003). Neighborhood-based differences in physical activity: An environment scale evaluation. *American Journal of Public Health, 93,* 1552-1558). The abbreviated version was created in an attempt to provide a more succinct and empirically-derived measure of various aspects of the built environment we purport to be related to walking. The results of multi-level confirmatory factor analysis, based on data from the Neighborhood Quality of Life Study, are reported elsewhere (see Cerin, E., Saelens, B.E., Sallis, J.F., & Frank, L.D. (2006). Neighborhood Environment Walkability Scale: validity and development of a short form. *Medicine and Science in Sports and Exercise, 38,* 1682-1691) and the scoring procedures proposed below stem from these confirmatory factor analyses.

The residential density and land use mix-diversity subscales were not evaluated as part of the multi-level CFA (see the original NEWS scoring at http://www.drjamessallis.sdsu.edu/NEWSscoring.pdf for scoring of these components).

The multi-level confirmatory factor analysis allowed for the establishment of individual-level subscales and blockgroup level subscales. For reasons provided in the discussion of Cerin et al. (2006), scoring below refers to the individual-level subscale scoring.

Subscale A: Residential density (higher score denoting higher walkability)

A1. How common are <u>detached single-family residences</u> in your immediate neighborhood?
A2. How common are <u>townhouses or row houses of 1-3 stories</u> in your immediate neighborhood?
A3. How common are <u>apartments or condos 1-3 stories</u> in your immediate neighborhood?
A4. How common are <u>apartments or condos 4-6 stories</u> in your immediate neighborhood?
A5. How common are <u>apartments or condos 7-12 stories</u> in your immediate neighborhood?
A6. How common are <u>apartments or condos more than 13 stories</u> in your immediate neighborhood?

Responses:
None (1)　　　A few (2)　　　Some (3)　　　Most (4)　　　All (5)

Score on subscale A = A1 + (12 * A2) + (10 * A3) + (25 * A4) + (50 * A5) + (75 * A6)

Subscale B: Land-use mix – diversity (higher score denoting higher walkability)

B1. Convenience/small grocery store
B2. Supermarket
B3. Hardware store
B4. Fruit/vegetable market
B5. Laundry/dry cleaners
B6. Clothing store
B7. Post office
B8. Library
B9. Elementary school

B10. Other schools
B11. Book store
B12. Fast food restaurant
B13. Coffee place
B14. Bank/credit union
B15. Non-fast food restaurant
B16. Video store
B17. Pharmacy/drug store
B18. Salon/barber shop
B19. Your job or school
B20. Bus or trolley stop
B21. Park
B22. Recreation center
B23. Gym or fitness facility

Responses:
1-5 min(1)   6-10 min(2)   11-20 min(3)   21-30 min(4)   31+ min(5)   don't know (5)

Note: A 'don't know' response is coded as a "5" because if it is not known whether the facility is within walking distance, the actual walk is likely more than 31 minutes.

Reverse coding items: All items must be reverse coded

Score on subscale: Mean of items

Alternative scoring: For some purposes it may be useful to tally the number of stores or facilities within a 5, 10, or 20-minute walk.

Subscale C: Land-use mix – access (higher score denoting higher walkability)

C1. Stores are within easy walking distance.
C2. There are many places to go within walking distance at my home.
C3. It is easy to walk to a transit stop (bus, train) from my home.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale C = (C1 + C2 + C3) / 3

Subscale D: Street connectivity (higher score denoting higher walkability)

D1. The distance between intersections in my neighborhood is usually short.
D2. There are many alternative routes for getting from place to place in my neighborhood.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale D = (D1 + D2) / 2

Subscale E: Infrastructure and safety for walking (higher score denoting higher walkability)

E1. There are sidewalks on most of the streets in my neighborhood..
E2. Sidewalks are separated from the road/traffic in my neighborhood by parked cars.
E3. There is a grass/dirt strip that separates the streets from the sidewalks in my neighborhood.
E4. My neighborhood is well lit at night.
E5. Walkers and bikers on the streets in my neighborhood can be easily seen by people in their homes.
E6. There are crosswalks and pedestrian signals to help walkers cross busy streets in my neighborhood.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale E = (E1 + E2 + E3 + E4 + E5 + E6) / 6

Subscale F: Aesthetics (higher score denoting higher walkability)

F1. There are trees along the streets in my neighborhood.
F2. There are many interesting things to look at while walking in my neighborhood.
F3. There are many attractive natural sights in my neighborhood.
F4. There are attractive buildings/homes in my neighborhood.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale F = (F1 + F2 + F3 + F4) / 4

Subscale G: Traffic hazards (higher score denoting lower walkability)

G1. There is so much traffic along nearby streets that it makes it difficult or unpleasant to walk in my neighborhood.
G2. The speed of traffic on most nearby streets is usually slow.
G3. Most drivers exceed the posted limits while driving in my neighborhood.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Reverse coding items: #2 ('speed of traffic')

Score on subscale G = (G1 + 5 - G2 + G3) / 3

Subscale H: Crime (higher score denoting lower walkability)

H1. There is a high crime rate in my neighborhood.
H2. The crime rate in my neighborhood makes it unsafe to go on walks during the day.
H3. The crime rate in my neighborhood makes it unsafe to go on walks at night.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale H = (H1 + H2 + H3) / 3

Single-item subscale I: Lack of parking (higher score denoting higher walkability)

I1. Parking is difficult in local shopping areas.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale I = I1

Single-item subscale J: Lack of cul-de-sacs (higher score denoting higher walkability)

J1. The streets in my neighborhood do not have many cul-de-sacs.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale J = J1

Single-item subscale K: Hilliness (higher score denoting lower walkability)

K1. The streets in my neighborhood are hilly, making my neighborhood difficult to walk in.

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale K = K1

Single-item subscale L: Physical barriers (higher score denoting lower walkability)

L1. There are major barriers to walking in my neighborhood that make it hard to get from place to place (for example, freeways, railway lines, rivers, canyons, hillsides).

Responses:
Strongly disagree (1)   Somewhat disagree (2)   Somewhat agree (3)   Strongly agree (4)

Score on subscale L = L1