

SUPPLEMENTAL FILE 3

Descriptive statistics of raw means and medians by neighborhood cluster^a type, pooled cities & CARDIA Exam Years 0-25

	Exam Year 0	Exam Year 10	Exam Year 15	Exam Year 25	Exam Years 0-25
LOW CONNECTIVITY/AMENITIES CLUSTER [545 (23.2%)]					
<i>Means (SD)</i>					
Intersection density ^b	45.8 (17.2)	47.1 (17.2)	45.4 (17.3)	59.8 (20.9)	47.8 (17.7)
Links (count) ^c	814 (674)	753 (656)	775 (653)	1,076 (1,008)	856 (725)
Cul-de-sacs (count)	23.6 (14.3)	20.7 (14.3)	22.3 (15.2)	36.5 (27.7)	24.7 (17.4)
Beta index ^d	1.9 (0.2)	1.9 (0.2)	1.9 (0.2)	1.9 (0.3)	1.9 (0.2)
Total road length (km)	111,808 (94,426)	102,353 (91,701)	105,906 (91,359)	125,152 (108,415)	115,258 (96,666)
Percentage residential ^e	75.9 (7.2)	76.9 (8.0)	76.8 (7.8)	67.5 (9.3)	75.1 (8.4)
Distance to nearest employment sub-center ^f	5,578 (3,131)	5,712 (3,358)	7,932 (2,957)	7,759 (3,278)	6,291 (3,364)
PA facilities (count)	15.9 (17.7)	19.4 (20.9)	20.2 (21.8)	39.1 (45.0)	23.1 (26.9)
Fast food restaurants (chain) (count per km ²)	2.4 (2.7)	2.7 (3.1)	2.5 (2.7)	4.9 (5.7)	3.5 (4.2)
Full-service restaurants (count per km ²)	0.0 (0.2)	8.3 (16.9)	8.0 (16.2)	23.1 (31.6)	9.0 (18.5)
Convenience stores (count per km ²)	7.5 (8.4)	10.2 (10.7)	9.0 (9.3)	13.9 (15.5)	12.6 (15.0)
Supermarkets (count)	0.7 (1.0)	0.8 (1.0)	0.3 (0.8)	2.7 (3.2)	1.1 (1.6)
Co-ops (count)	0.0 (0.2)	0.7 (1.0)	0.4 (0.7)	0.2 (0.6)	0.3 (0.7)
<i>Median (IQR)</i>					
Total neighborhood area (km ²)	6.4 (2.7-18.4)	5.5 (2.4-18.4)	6.2 (2.7-18.4)	6.0 (2.6-18.4)	6.4 (2.7-18.4)
Total park area (km ²) ^g	360,049 (171,620- 809,273)	358,183 (86,243- 809,273)	358,183 (104,365- 809,273)	386,936 (110,227- 809,273)	360,049 (116,115- 809,273)
PA facilities (count per km ²)	1.1 (0.6-2.2)	2.2 (1.0-2.6)	2.1 (1.0-2.6)	4.4 (2.2-4.4)	2.2 (0.9-2.8)
Fast food restaurants (chain) (count per km ²)	0.2 (0-0.3)	0.3 (0.0-0.4)	0.3 (0.0-0.3)	0.5 (0.0-0.7)	0.3 (0.0-0.5)
Full-service restaurants (count per km ²)	0.0 (0.0-0.0)	0.6 (0.0-0.9)	0.7 (0.0-0.9)	1.5 (0.4-3.0)	0.1 (0.0-1.1)
Convenience stores (count per km ²)	0.7 (0.2-1.0)	1.4 (0.5-1.4)	0.9 (0.5-1.2)	1.2 (0.4-2.0)	1.0 (0.4-1.5)
Supermarkets (count per km ²)	0.0 (0.0-0.1)	0.0 (0.0-0.1)	0.0 (0.0-0.0)	0.2 (0-0.4)	0.0 (0.0-0.1)

Co-ops (count per km ²)	0.0 (0.0-0.0)	0.0 (0.0-0.1)	0.0 (0.0-0.1)	0.0 (0.0-0.0)	0.0 (0.0-0.0)
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**AVERAGE CONNECTIVITY/AMENITIES
CLUSTER [n=409 (17.4%)]**

Means (SD)

Intersection density ^b	57.4 (14.3)	55.7 (16.5)	54.2 (15.8)	68.5 (25.3)	58.3 (17.8)
Links (count) ^c	259 (247)	287 (267)	289 (258)	358 (387)	290 (278)
Cul-de-sacs (count)	8.6 (9.7)	11.0 (11.8)	11.5 (11.8)	14.1 (16.5)	10.6 (11.9)
Beta index ^d	2.1 (0.3)	2.0 (0.3)	2.0 (0.3)	2.0 (0.4)	2.0 (0.3)
Total road length (km)	32,565 (34,502)	36,170 (36,066)	36,526 (34,968)	43,050 (44,611)	36,629 (37,144)
Percentage residential ^e	77.0 (9.1)	78.3 (9.3)	78.6 (9.3)	71.8 (10.8)	76.8 (9.7)
Distance to nearest employment sub-center ^f	4,690 (2,594)	5,515 (3,007)	6,363 (2,889)	6,105 (3,314)	5,419 (2,900)
PA facilities (count)	3.7 (6.8)	6.3 (10.0)	6.6 (10.0)	13.0 (20.9)	6.9 (12.1)
Fast food restaurants (chain) (count per km ²)	0.4 (0.9)	0.8 (1.5)	0.7 (1.4)	1.3 (2.5)	0.8 (1.6)
Full-service restaurants (count per km ²)	0.1 (0.3)	3.0 (9.8)	3.2 (9.5)	6.2 (12.8)	2.9 (9.2)
Convenience stores (count per km ²)	2.1 (3.3)	3.5 (5.4)	3.1 (4.5)	4.0 (6.5)	3.4 (5.5)
Supermarkets (count)	0.1 (0.3)	0.3 (0.7)	0.34 (0.8)	0.8 (1.7)	0.3 (0.9)
Co-ops (count)	0.2 (0.5)	0.2 (0.6)	0.2 (0.5)	0.1 (0.3)	0.2 (0.5)

Median (IQR)

Total neighborhood area (km ²)	1.5 (0.8-2.2)	1.6 (1.0-2.8)	1.8 (1.0-2.9)	1.8 (1.1-3.3)	1.5 (0.9-2.7)
Total park area (km ²) ^g	27,152 (865- 77,443)	37,331 (5,090- 150,647)	37,331 (6,187- 168,852)	41,697 (10,522- 169,537)	33,195 (2,308- 130,304)
PA facilities (count per km ²)	1.1 (0.5-2.2)	1.8 (0.9-3.3)	2.1 (0.9-3.4)	3.8 (1.6-7.0)	1.8 (0.8-3.4)
Fast food restaurants (chain) (count per km ²)	0.0 (0.0-0.0)	0.0 (0.0-0.5)	0.0 (0.0-0.4)	0.0 (0.0-0.7)	0.0 (0.0-0.4)
Full-service restaurants (count per km ²)	0.0 (0.0-0.0)	0 (0-1.1)	0.5 (0-1.3)	1.2 (0-2.5)	0.0 (0.0-1.1)
Convenience stores (count per km ²)	0.7 (0-1.2)	1.2 (0.3-1.9)	0.9 (0-1.7)	0.9 (0.0-2.0)	0.9 (0-1.8)
Supermarkets (count per km ²)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.3)	0.0 (0.0-0.0)
Co-ops (count per km ²)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.0)	0.0 (0.0-0.0)

HIGH CONNECTIVITY/AMENITIES

CLUSTER [n=1398 (59.4%)]

Means (SD)

Intersection density ^b	62.0 (13.5)	56.7 (15.0)	56.9 (15.1)	77.4 (26.2)	62.0 (17.0)
Links (count) ^c	569 (381)	515 (428)	539 (450.9)	692.7 (701)	581.3 (447.8)
Cul-de-sacs (count)	18.8 (11.2)	17.2 (13.1)	17.9 (13.0)	26.5 (28.60)	19.6 (15.5)
Beta index ^d	2.0 (0.4)	2.1 (0.4)	2.0 (0.3)	2.1 (0.5)	2.0 (0.4)
Total road length (km)	67,330 (47,154)	62,730 (52,669)	65,388 (53,896)	73,133 (70,323)	68,684 (52,587)
Percentage residential ^e	71.5 (9.3)	72.8 (9.8)	73.5 (9.7)	64.4 (11.8)	71.1 (9.9)
Distance to nearest employment sub-center ^f	2,688 (1,830)	3,950 (2,806)	4,763 (3,095)	4,887 (3,205)	3,592 (2,636)
PA facilities (count)	21.1 (24.3)	20.9 (27.3)	28.2 (37.4)	55.6 (84.0)	30.5 (41.8)
Fast food restaurants (chain) (count per km ²)	2.2 (1.9)	3.2 (3.7)	3.4 (4.0)	5.2 (7.1)	3.6 (4.1)
Full-service restaurants (count per km ²)	0.6 (0.7)	24.9 (44.0)	26.7 (44.3)	40.0 (65.1)	26.8 (49.6)
Convenience stores (count per km ²)	5.6 (4.7)	10.3 (11.1)	10.1 (10.9)	11.3 (12.5)	9.8 (10.4)
Supermarkets (count)	0.1 (0.3)	0.7 (1.0)	0.9 (1.2)	2.5 (3.4)	0.9 (1.6)
Co-ops (count)	0.9 (1.0)	0.9 (1.5)	1.1 (1.6)	0.7 (1.1)	1.2 (1.6)

Median (IQR)

Total neighborhood area (km ²)	5.7 (1.3-7.0)	3.1 (1.3-7.0)	3.2 (1.6-7.0)	3.0 (1.2-7.0)	4.1 (1.3-7.0)
Total park area (km ²) ^g	150,647 (34,233- 255,992)	93,231 (25,049- 307,527)	104,876 (32,495- 360,049)	74,426 (16,395- 277,593)	150,647 (32,495- 264,839)
PA facilities (count per km ²)	2.7 (0.8-8.6)	2.7 (1.3-5.4)	3.7 (1.2-7.5)	6.5 (2.0-15.8)	3.5 (1.4-8.6)
Fast food restaurants (chain) (count per km ²)	0.5 (0.0-0.7)	0.6 (0.0-1.0)	0.6 (0.0-1.3)	0.7 (0.0-1.4)	0.6 (0.0-1.0)
Full-service restaurants (count per km ²)	0.0 (0.0-0.1)	1.4 (0-5.6)	1.8 (0.5-6.6)	3.0 1.0-10.5)	0.8 (0-6.4)
Convenience stores (count per km ²)	1.2 (0.9-1.6)	1.9 1.0-3.1)	1.6 (0.9-2.9)	2.5 (1.1-3.4)	1.6 (0.9-3.0)
Supermarkets (count per km ²)	0.0 (0.0-0.0)	0.0 (0.0-0.4)	0.0 (0.0-0.4)	0.2 (0.0-0.9)	0.0 (0.0-0.3)
Co-ops (count per km ²)	0.1 (0.0-0.2)	0.0 (0.0-0.2)	0.0 (0.0-0.3)	0.0 (0.0-0.2)	0.1 (0.0-0.5)

^a Clusters created *a posteriori* clusters using non-hierarchical cluster analysis with 392 neighborhoods across 6 exam years (n=2352 neighborhoods) in the core 4 cities (Birmingham, AL; Chicago, IL; Minneapolis, MN; Oakland, CA)

^b Intersection density represents the number of 3-way, 4-way, and higher intersections per km²

^c Number of connections between intersections

^d Ratio of links to nodes (intersections)

^e Percentage of roads used for local traffic

^f Distance from neighborhood centroid to nearest employment center centroid (km)

^g We calculated the total park area within the boundaries of each neighborhood, and excluded (clipped) any park area that extended beyond the boundaries. The park area outside of the boundaries would count toward the total park area in the adjacent neighborhood unit(s).