

National Longitudinal Study of Adolescent Health

Wave III Street Connectivity Files Codebook

Penny Gordon-Larsen



Carolina Population Center
University of North Carolina at Chapel Hill

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Persons interested in obtaining data files from Add Health should contact Add Health, Carolina Population Center, 123 W. Franklin Street, Chapel Hill, NC 27516-2524 (addhealth@unc.edu).

Add Health Wave III Connectivity

Filename: w3conn.xpt

Description

The purpose of this Add Health data file is to provide measures of accessibility to physical resources in respondents' communities. Specifically, this file contains road network connectivity measures within 1, 3, 5, and 8.05 km (5 miles) of Wave III respondent locations.

The road networks for Wave III respondents were extracted from the StreetMap 2000 product from Environmental Systems Research Institute in Redlands, CA. The StreetMap 2000 product was derived from roads data developed by Geographic Data Technology, which has since been acquired by TeleAtlas. Before the connectivity measures could be calculated, the road networks were subjected to pre-processing steps as follows:

Step 1: Corrected a significant digitizing error in the street file for one of the Add Health communities. The digitizing error was corrected by applying a shift to the street file to align it with digital orthophoto quarter quadrangle imagery, which is imagery from which the geometric distortions inherent in aerial photography have been mostly removed. Respondent locations derived from GPS coordinates were not shifted.

Step 2: To eliminate road links that were not useful in measuring accessibility to physical activity resources in respondents' neighborhoods, interstates and on-ramps were dropped from the dataset. The condensed dataset was then run through a network topology cleaning program to repair undershoots and overshoots, and to intersect overlapping lines. The cleaning program also removed intersections incorrectly placed in the middle of blocks. Intersections from the newly cleaned roads files were output as "nodes" files for use in the connectivity calculations.

The core road network variables from which the other connectivity measures were calculated are as follows:

V	Number of nodes (intersections)
L	Number of links (connections between nodes)
J1	Number of single-link "intersections" (cul de sacs)
J3/J4	Number of three-way/four-way intersections (three/four links meeting at a node)
JN	Number of four plus-link intersections (four or more links meeting at a node)

The connectivity measures derived from the core variables, and their corresponding formulas, are as follows¹:

Measure	Description	Formula
Alpha Index	<ul style="list-style-type: none"> Ratio of observed to maximum possible route alternatives between nodes (circuitry; circuit is present when $L > V-1$). Maximum possible number of circuits is the maximum number of links, $3(V-2)$, minus the number of links in a minimally connected network, $V-1$: $C_{\max} = 3(V-2) - (V-1) = 2V-5$. Higher values indicate higher connectivity/accessibility. 	$\alpha = \frac{C_{obs}}{C_{\max}} = \frac{L - V + 1}{2V - 5}$
Beta Index	<ul style="list-style-type: none"> Link-to-node ratio. Higher values indicate higher connectivity/accessibility. 	$\beta = \frac{L}{V}$
Cul de Sac Density	<ul style="list-style-type: none"> Lower values indicate higher connectivity/accessibility. 	$\frac{J_1}{AREA}$
Cyclomatic Index	<ul style="list-style-type: none"> Number of route alternatives (circuits) between nodes. Higher values indicate higher connectivity/accessibility. 	$\mu = L - V + 1$
Gamma Index	<ul style="list-style-type: none"> Ratio of actual links in a network to the maximum possible number of links in the network. Note: Maximum possible number of links in a network = $3(V-2)$. Range = 0 to 1. Higher values indicate higher connectivity/accessibility. 	$\gamma = \frac{L_{obs}}{L_{\max}} = \frac{L_{obs}}{3(V-2)}$
Intersection Density: Nodes with 3+ Links	<ul style="list-style-type: none"> Density of 3-way, 4-way, and higher intersections. Higher values indicate higher connectivity/accessibility. 	$\frac{J_3 + J_4 + \dots + J_{\max}}{AREA}$
Intersection Proportion: Nodes with 3+ Links	<ul style="list-style-type: none"> Proportion of 3-way, 4-way, and higher intersections. Higher values indicate higher connectivity/accessibility. 	$\frac{J_3 + J_4 + \dots + J_{\max}}{J_1 + J_3 + J_4 + \dots + J_{\max}}$

¹ The formulas used are based on classical graph theory, in which a network is defined by links that have a node at each end. As a result of identifying links and intersections within specified search radii of respondents, however, nodes at the ends of links that continued outside the search radii were omitted. This decrease in the number of nodes vis-à-vis a theoretically true network created values that were outside of the expected ranges, but that still fell along a meaningful continuum. This should be taken into account when interpreting the Add Health Wave III connectivity data.

In some instances, metrics could not be calculated for respondents, because in the absence of nodes/intersections the formula would have required division by zero. In these instances, the resulting missing values were assigned either the Add Health replacement code for legitimate skip or the value zero. For specific assignments, regard the following.

Beta Index missing, at 1 km and 3 km: legitimate skip code equals 7.

Gamma index missing, at 1 km and 3 km: zero, instead of 7, in order to indicate the existence of some connectivity (two nodes present) within the range of possible connectivity values.

Three or more-way intersection proportion missing, at 1 km and 3 km: legitimate skip code equals 7.

A total of 308 respondents lacked geocode data and, consequently, could not be associated with resource data. These respondents were assigned the Add Health replacement code for geocode missing. The replacement code pattern for geocode missing is 8 preceded by a series of 9s, with the number of 9s dependent upon the variable's maximum value.

Variable Listing

Variable Name	Variable Label and Description
W3CN01_1	Alpha index, 1km
W3CN01_3	Alpha index, 3km
W3CN01_5	Alpha index, 5km
W3CN01_8	Alpha index, 8km
W3CN02_1	Area (sq km), 1km
W3CN02_3	Area (sq km), 3km
W3CN02_5	Area (sq km), 5km
W3CN02_8	Area (sq km), 8km
W3CN03_1	Beta index, 1km
W3CN03_3	Beta index, 3km
W3CN03_5	Beta index, 5km
W3CN03_8	Beta index, 8km
W3CN04_1	Cul de sac density-sqkm, 1km
W3CN04_3	Cul de sac density-sqkm, 3km
W3CN04_5	Cul de sac density-sqkm, 5km
W3CN04_8	Cul de sac density-sqkm, 8km
W3CN05_1	Cyclomatic index, 1km
W3CN05_3	Cyclomatic index, 3km
W3CN05_5	Cyclomatic index, 5km
W3CN05_8	Cyclomatic index, 8km
W3CN06_1	Gamma index, 1km
W3CN06_3	Gamma index, 3km
W3CN06_5	Gamma index, 5km
W3CN06_8	Gamma index, 8km
W3CN07_1	3-way or more intersection density-sqkm, 1km
W3CN07_3	3-way or more intersection density-sqkm, 3km
W3CN07_5	3-way or more intersection density-sqkm, 5km
W3CN07_8	3-way or more intersection density-sqkm, 8km
W3CN08_1	3-way or more intersection proportion , 1km
W3CN08_3	3-way or more intersection proportion , 3km

W3CN08_5	3-way or more intersection proportion , 5km
W3CN08_8	3-way or more intersection proportion, 8km
W3CN09_1	1 link intersection count, 1km
W3CN09_3	1 link intersection count, 3km
W3CN09_5	1 link intersection count, 5km
W3CN09_8	1 link intersection count, 8km
W3CN10_1	3 link intersection count, 1km
W3CN10_3	3 link intersection count, 3km
W3CN10_5	3 link intersection count, 5km
W3CN10_8	3 link intersection count, 8km
W3CN11_1	4 link intersection count, 1km
W3CN11_3	4 link intersection count, 3km
W3CN11_5	4 link intersection count, 5km
W3CN11_8	4 link intersection count, 8km
W3CN12_1	More than 4 link intersection count, 1km
W3CN12_3	More than 4 link intersection count, 3km
W3CN12_5	More than 4 link intersection count, 5km
W3CN12_8	More than 4 link intersection count, 8km
W3CN13_1	Link (roads) count, 1km
W3CN13_3	Link (roads) count, 3km
W3CN13_5	Link (roads) count, 5km
W3CN13_8	Link (roads) count, 8km
W3CN14_1	Node (intersections) count, 1km
W3CN14_3	Node (intersections) count, 3km
W3CN14_5	Node (intersections) count, 5km
W3CN14_8	Node (intersections) count, 8km

W3CONN: Wave III Connectivity Data

Wave III Connectivity Data

AID		Str 8	Respondent Identifier NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	10316654	
1	0.0%	10316952	
1	0.0%	10506342	
1	0.0%	10570810	
1	0.0%	10606128	
15187	99.9%	11316754-99886992	NOTE: Range of values omitted from display
1	0.0%	99886993	
1	0.0%	99886994	
1	0.0%	99886995	
1	0.0%	99886996	
1	0.0%	99886999	

W3CN01_1		Num 8	Alpha Index, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	-7	-7
10	0.1%	-6	-6
12	0.1%	-5	-5
32	0.2%	-4	-4
13	0.1%	-3	-3
14769	97.2%	-2-4	NOTE: Range of values omitted from display
24	0.2%	5	5

24	0.2%	6	6
3	0.0%	7	7
1	0.0%	10	10
308	2.0%	98	Geocode Missing

W3CN01_3		Num 8	Alpha Index, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	-4	-4
1	0.0%	.0288	.0288
1	0.0%	.0325	.0325
1	0.0%	.0348	.0348
2	0.0%	.0369	.0369
14879	97.9%	.0382- .9412	NOTE: Range of values omitted from display
1	0.0%	1.2857	1.2857
1	0.0%	2	2
1	0.0%	5	5
1	0.0%	6	6
308	2.0%	8	Geocode Missing

W3CN01_5		Num 8	Alpha Index, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.0343	.0343
1	0.0%	.0348	.0348
1	0.0%	.0351	.0351
1	0.0%	.0373	.0373
2	0.0%	.0375	.0375

14879	97.9%	.0377-.4234	NOTE: Range of values omitted from display
1	0.0%	.4528	.4528
1	0.0%	.4626	.4626
1	0.0%	.5556	.5556
1	0.0%	.6129	.6129
308	2.0%	8	Geocode Missing

W3CN01_8		Num 8	Alpha Index, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.0263	.0263
1	0.0%	.0288	.0288
1	0.0%	.0295	.0295
1	0.0%	.0309	.0309
1	0.0%	.0313	.0313
14880	97.9%	.0315-.3942	NOTE: Range of values omitted from display
1	0.0%	.3944	.3944
1	0.0%	.3946	.3946
1	0.0%	.3952	.3952
1	0.0%	.4406	.4406
308	2.0%	8	Geocode Missing

W3CN02_1		Num 8	Area (sq km), 1km
Frequency	Percent	Value	Label
14889	98.0%	3.14159265	3.14159265
308	2.0%	8	Geocode Missing

W3CN02_3		Num 8	Area (sq km), 3km
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Frequency	Percent	Value	Label
14889	98.0%	28.27433388	28.27433388
308	2.0%	98	Geocode Missing

W3CN02_5		Num 8	Area (sq km), 5km
Frequency	Percent	Value	Label
14889	98.0%	78.53981634	78.53981634
308	2.0%	98	Geocode Missing

W3CN02_8		Num 8	Area (sq km), 8.05km
Frequency	Percent	Value	Label
14889	98.0%	203.41719051	203.41719051
308	2.0%	998	Geocode Missing

W3CN03_1		Num 8	Beta Index, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
11	0.1%	1	1
1	0.0%	1.0465	1.0465
1	0.0%	1.0476	1.0476
2	0.0%	1.0556	1.0556
1	0.0%	1.0667	1.0667
14798	97.4%	1.0714-3	NOTE: Range of values omitted from display
10	0.1%	3.5	3.5
28	0.2%	4	4
6	0.0%	5	5
31	0.2%	7	Legitimate Skip
308	2.0%	8	Geocode Missing

W3CN03_3		Num 8	Beta Index, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	1.05	1.05
1	0.0%	1.0511	1.0511
1	0.0%	1.0567	1.0567
2	0.0%	1.0667	1.0667
1	0.0%	1.0682	1.0682
14878	97.9%	1.0704- 2.3125	NOTE: Range of values omitted from display
2	0.0%	2.3333	2.3333
1	0.0%	2.3636	2.3636
1	0.0%	2.5	2.5
1	0.0%	2.6667	2.6667
308	2.0%	8	Geocode Missing

W3CN03_5		Num 8	Beta Index, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	1.0647	1.0647
1	0.0%	1.0672	1.0672
1	0.0%	1.0683	1.0683
1	0.0%	1.0695	1.0695
1	0.0%	1.0716	1.0716
14879	97.9%	1.0725- 1.842	NOTE: Range of values omitted from display
2	0.0%	1.8438	1.8438
1	0.0%	1.8462	1.8462
1	0.0%	1.8816	1.8816

1	0.0%	2.1429	2.1429
308	2.0%	8	Geocode Missing

W3CN03_8		Num 8	Beta Index, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	1.051	1.051
1	0.0%	1.056	1.056
1	0.0%	1.0577	1.0577
1	0.0%	1.0608	1.0608
1	0.0%	1.0616	1.0616
14880	97.9%	1.0619- 1.7882	NOTE: Range of values omitted from display
1	0.0%	1.7885	1.7885
1	0.0%	1.7889	1.7889
1	0.0%	1.7901	1.7901
1	0.0%	1.8571	1.8571
308	2.0%	8	Geocode Missing

W3CN04_1		Num 8	Cul De Sac Density (sq km), 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
299	2.0%	0	0
323	2.1%	.3183	.3183
299	2.0%	.6366	.6366
343	2.3%	.9549	.9549
411	2.7%	1.2732	1.2732
13210	86.9%	1.5915- 36.6056	NOTE: Range of values omitted from display
1	0.0%	37.8789	37.8789

1	0.0%	41.062	41.062
1	0.0%	42.3352	42.3352
1	0.0%	58.8873	58.8873
308	2.0%	98	Geocode Missing

W3CN04_3		Num 8	Cul De Sac Density (sq km), 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
8	0.1%	0	0
17	0.1%	.0354	.0354
21	0.1%	.0707	.0707
30	0.2%	.1061	.1061
28	0.2%	.1415	.1415
14780	97.3%	.1768- 25.1111	NOTE: Range of values omitted from display
1	0.0%	25.5002	25.5002
2	0.0%	26.2429	26.2429
1	0.0%	26.5258	26.5258
1	0.0%	29.1784	29.1784
308	2.0%	98	Geocode Missing

W3CN04_5		Num 8	Cul De Sac Density (sq km), 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
2	0.0%	.0255	.0255
3	0.0%	.0382	.0382
2	0.0%	.0637	.0637
2	0.0%	.0764	.0764
7	0.0%	.0891	.0891

14869	97.8%	.1019- 21.4414	NOTE: Range of values omitted from display
1	0.0%	21.4541	21.4541
1	0.0%	21.5687	21.5687
1	0.0%	22.1289	22.1289
1	0.0%	22.5363	22.5363
308	2.0%	98	Geocode Missing

W3CN04_8		Num 8	Cul De Sac Density (sq km), 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.0246	.0246
1	0.0%	.0344	.0344
1	0.0%	.0541	.0541
2	0.0%	.0737	.0737
1	0.0%	.0787	.0787
14879	97.9%	.0836- 18.0221	NOTE: Range of values omitted from display
1	0.0%	18.5874	18.5874
1	0.0%	18.6415	18.6415
1	0.0%	18.6464	18.6464
1	0.0%	19.0004	19.0004
308	2.0%	98	Geocode Missing

W3CN05_1		Num 2	Cyclomatic Index, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
15	0.1%	1	1
86	0.6%	2	2
148	1.0%	3	3

236	1.6%	4	4
226	1.5%	5	5
14172	93.3%	6-432	NOTE: Range of values omitted from display
2	0.0%	433	433
2	0.0%	435	435
1	0.0%	451	451
1	0.0%	497	497
308	2.0%	998	Geocode Missing

W3CN05_3		Num 2	Cyclomatic Index, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	2	2
2	0.0%	3	3
7	0.0%	4	4
15	0.1%	5	5
20	0.1%	6	6
14840	97.7%	7-2906	NOTE: Range of values omitted from display
1	0.0%	3000	3000
1	0.0%	3107	3107
1	0.0%	3142	3142
1	0.0%	3144	3144
308	2.0%	9998	Geocode Missing

W3CN05_5		Num 2	Cyclomatic Index, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	4	4
1	0.0%	5	5

1	0.0%	6	6
1	0.0%	7	7
3	0.0%	8	8
14878	97.9%	9-6361	NOTE: Range of values omitted from display
1	0.0%	6473	6473
1	0.0%	6584	6584
1	0.0%	6654	6654
1	0.0%	6851	6851
308	2.0%	9998	Geocode Missing

W3CN05_8		Num 4	Cyclomatic Index, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	9	9
1	0.0%	14	14
1	0.0%	18	18
1	0.0%	21	21
2	0.0%	24	24
14879	97.9%	25-11988	NOTE: Range of values omitted from display
1	0.0%	12158	12158
1	0.0%	12242	12242
1	0.0%	12252	12252
1	0.0%	12882	12882
308	2.0%	99998	Geocode Missing

W3CN06_1		Num 8	Gamma Index, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label

6	0.0%	-1.6667	-1.6667
26	0.2%	-1.3333	-1.3333
27	0.2%	-1	-1
7	0.0%	-.6667	-.6667
3	0.0%	-.5	-.5
14768	97.2%	-.3333-2	NOTE: Range of values omitted from display
24	0.2%	2.3333	2.3333
24	0.2%	2.6667	2.6667
3	0.0%	3	3
1	0.0%	4	4
308	2.0%	8	Geocode Missing

W3CN06_3		Num 8	Gamma Index, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	0	0
1	0.0%	.3544	.3544
1	0.0%	.3573	.3573
2	0.0%	.3599	.3599
1	0.0%	.3604	.3604
14879	97.9%	.3621- .963	NOTE: Range of values omitted from display
1	0.0%	1.1667	1.1667
1	0.0%	1.5	1.5
1	0.0%	2.3333	2.3333
1	0.0%	2.6667	2.6667
308	2.0%	8	Geocode Missing

W3CN06_5		Num 8	Gamma Index, 5km
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			NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
2	0.0%	.3572	.3572
1	0.0%	.3573	.3573
2	0.0%	.3589	.3589
2	0.0%	.359	.359
1	0.0%	.3594	.3594
14877	97.9%	.36-.6156	NOTE: Range of values omitted from display
1	0.0%	.642	.642
1	0.0%	.6441	.6441
1	0.0%	.7333	.7333
1	0.0%	.7447	.7447
308	2.0%	8	Geocode Missing

W3CN06_8		Num 8	Gamma Index, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.3513	.3513
1	0.0%	.353	.353
1	0.0%	.3534	.3534
1	0.0%	.3543	.3543
1	0.0%	.3545	.3545
14880	97.9%	.3546-.5962	NOTE: Range of values omitted from display
1	0.0%	.5963	.5963
1	0.0%	.5964	.5964
1	0.0%	.5968	.5968
1	0.0%	.6285	.6285

308	2.0%	8	Geocode Missing
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W3CN07_1		Num 8	3-Way or More Intersection Density (sq km), 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
50	0.3%	0	0
112	0.7%	.3183	.3183
127	0.8%	.6366	.6366
159	1.0%	.9549	.9549
135	0.9%	1.2732	1.2732
14301	94.1%	1.5915- 171.569	NOTE: Range of values omitted from display
1	0.0%	171.8873	171.8873
2	0.0%	172.524	172.524
1	0.0%	176.662	176.662
1	0.0%	214.2226	214.2226
308	2.0%	998	Geocode Missing

W3CN07_3		Num 8	3-Way or More Intersection Density (sq km), 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.0354	.0354
2	0.0%	.0707	.0707
1	0.0%	.1061	.1061
4	0.0%	.1415	.1415
4	0.0%	.1768	.1768
14873	97.9%	.2122- 130.9315	NOTE: Range of values omitted from display
1	0.0%	136.3074	136.3074
1	0.0%	136.9086	136.9086

1	0.0%	146.1042	146.1042
1	0.0%	148.6861	148.6861
308	2.0%	998	Geocode Missing

W3CN07_5		Num 8	3-Way or More Intersection Density (sq km), 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.0637	.0637
1	0.0%	.1273	.1273
2	0.0%	.1401	.1401
1	0.0%	.1655	.1655
1	0.0%	.2037	.2037
14879	97.9%	.2165- 109.7787	NOTE: Range of values omitted from display
1	0.0%	111.1793	111.1793
1	0.0%	112.8982	112.8982
1	0.0%	112.9618	112.9618
1	0.0%	116.4123	116.4123
308	2.0%	998	Geocode Missing

W3CN07_8		Num 8	3-Way or More Intersection Density (sq km), 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.1131	.1131
1	0.0%	.118	.118
1	0.0%	.1721	.1721
1	0.0%	.2261	.2261
1	0.0%	.2802	.2802
14880	97.9%	.3097- 83.0166	NOTE: Range of values omitted from display

1	0.0%	83.7442	83.7442
1	0.0%	83.7884	83.7884
1	0.0%	84.3439	84.3439
1	0.0%	91.5508	91.5508
308	2.0%	98	Geocode Missing

W3CN08_1		Num 8	3-Way or More Intersection Proportion, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
12	0.1%	0	0
1	0.0%	.2	.2
6	0.0%	.25	.25
1	0.0%	.2727	.2727
1	0.0%	.3	.3
14564	95.8%	.3333-.9965	NOTE: Range of values omitted from display
2	0.0%	.9967	.9967
3	0.0%	.9968	.9968
261	1.7%	1	1
38	0.3%	7	Legitimate Skip
308	2.0%	8	Geocode Missing

W3CN08_3		Num 8	3-Way or More Intersection Proportion, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.4211	.4211
1	0.0%	.4242	.4242
2	0.0%	.4286	.4286
1	0.0%	.4375	.4375

1	0.0%	.4545	.4545
14872	97.9%	.4565-.9805	NOTE: Range of values omitted from display
1	0.0%	.9842	.9842
1	0.0%	.9861	.9861
1	0.0%	.9938	.9938
8	0.1%	1	1
308	2.0%	8	Geocode Missing

W3CN08_5		Num 8	3-Way or More Intersection Proportion, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
2	0.0%	.4375	.4375
1	0.0%	.44	.44
1	0.0%	.4779	.4779
1	0.0%	.4783	.4783
1	0.0%	.4815	.4815
14878	97.9%	.4901-.9733	NOTE: Range of values omitted from display
1	0.0%	.9739	.9739
1	0.0%	.9741	.9741
1	0.0%	.9745	.9745
2	0.0%	.9746	.9746
308	2.0%	8	Geocode Missing

W3CN08_8		Num 8	3-Way or More Intersection Proportion, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	.5183	.5183
1	0.0%	.522	.522

1	0.0%	.5227	.5227
1	0.0%	.5228	.5228
1	0.0%	.5235	.5235
14877	97.9%	.5237-.964	NOTE: Range of values omitted from display
1	0.0%	.9643	.9643
2	0.0%	.9644	.9644
3	0.0%	.9645	.9645
1	0.0%	.9648	.9648
308	2.0%	8	Geocode Missing

W3CN09_1		Num 2	1 Link Intersection Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
299	2.0%	0	0
323	2.1%	1	1
299	2.0%	2	2
343	2.3%	3	3
411	2.7%	4	4
13210	86.9%	5-115	NOTE: Range of values omitted from display
1	0.0%	119	119
1	0.0%	129	129
1	0.0%	133	133
1	0.0%	185	185
308	2.0%	998	Geocode Missing

W3CN09_3		Num 2	1 Link Intersection Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label

8	0.1%	0	0
17	0.1%	1	1
21	0.1%	2	2
30	0.2%	3	3
28	0.2%	4	4
14780	97.3%	5-710	NOTE: Range of values omitted from display
1	0.0%	721	721
2	0.0%	742	742
1	0.0%	750	750
1	0.0%	825	825
308	2.0%	998	Geocode Missing

W3CN09_5		Num 2	1 Link Intersection Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
2	0.0%	2	2
3	0.0%	3	3
2	0.0%	5	5
2	0.0%	6	6
7	0.0%	7	7
14869	97.8%	8-1684	NOTE: Range of values omitted from display
1	0.0%	1685	1685
1	0.0%	1694	1694
1	0.0%	1738	1738
1	0.0%	1770	1770
308	2.0%	9998	Geocode Missing

W3CN09_8		Num 2	1 Link Intersection Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
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Frequency	Percent	Value	Label
1	0.0%	5	5
1	0.0%	7	7
1	0.0%	11	11
2	0.0%	15	15
1	0.0%	16	16
14879	97.9%	17-3666	NOTE: Range of values omitted from display
1	0.0%	3781	3781
1	0.0%	3792	3792
1	0.0%	3793	3793
1	0.0%	3865	3865
308	2.0%	9998	Geocode Missing

W3CN10_1		Num 2	3 Link Intersection Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
97	0.6%	0	0
123	0.8%	1	1
146	1.0%	2	2
158	1.0%	3	3
147	1.0%	4	4
14213	93.5%	5-320	NOTE: Range of values omitted from display
1	0.0%	327	327
2	0.0%	358	358
1	0.0%	369	369
1	0.0%	402	402
308	2.0%	998	Geocode Missing

W3CN10_3		Num 2	3 Link Intersection Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	0	0
1	0.0%	1	1
4	0.0%	2	2
5	0.0%	3	3
4	0.0%	4	4
14870	97.8%	5-2251	NOTE: Range of values omitted from display
1	0.0%	2267	2267
1	0.0%	2302	2302
1	0.0%	2344	2344
1	0.0%	2369	2369
308	2.0%	9998	Geocode Missing

W3CN10_5		Num 2	3 Link Intersection Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	4	4
1	0.0%	6	6
1	0.0%	10	10
3	0.0%	11	11
1	0.0%	12	12
14877	97.9%	13-5804	NOTE: Range of values omitted from display
1	0.0%	5845	5845
2	0.0%	5966	5966
1	0.0%	5972	5972
1	0.0%	6059	6059

308	2.0%	9998	Geocode Missing
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W3CN10_8		Num 4	3 Link Intersection Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	19	19
1	0.0%	22	22
1	0.0%	29	29
1	0.0%	30	30
1	0.0%	44	44
14880	97.9%	46-12876	NOTE: Range of values omitted from display
1	0.0%	12886	12886
1	0.0%	12889	12889
1	0.0%	12901	12901
1	0.0%	13336	13336
308	2.0%	99998	Geocode Missing

W3CN11_1		Num 2	4 Link Intersection Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
885	5.8%	0	0
711	4.7%	1	1
528	3.5%	2	2
345	2.3%	3	3
271	1.8%	4	4
12144	79.9%	5-304	NOTE: Range of values omitted from display
1	0.0%	311	311
1	0.0%	322	322

1	0.0%	340	340
2	0.0%	342	342
308	2.0%	998	Geocode Missing

W3CN11_3		Num 2	4 Link Intersection Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
129	0.8%	0	0
125	0.8%	1	1
134	0.9%	2	2
194	1.3%	3	3
154	1.0%	4	4
14149	93.1%	5-2017	NOTE: Range of values omitted from display
1	0.0%	2121	2121
1	0.0%	2414	2414
1	0.0%	2535	2535
1	0.0%	2595	2595
308	2.0%	9998	Geocode Missing

W3CN11_5		Num 2	4 Link Intersection Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
12	0.1%	0	0
23	0.2%	1	1
48	0.3%	2	2
51	0.3%	3	3
53	0.3%	4	4
14698	96.7%	5-4254	NOTE: Range of values omitted from display
1	0.0%	4351	4351

1	0.0%	4439	4439
1	0.0%	4720	4720
1	0.0%	4930	4930
308	2.0%	9998	Geocode Missing

W3CN11_8		Num 2	4 Link Intersection Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
3	0.0%	2	2
2	0.0%	3	3
4	0.0%	4	4
11	0.1%	5	5
13	0.1%	6	6
14852	97.7%	7-8869	NOTE: Range of values omitted from display
1	0.0%	8880	8880
1	0.0%	8895	8895
1	0.0%	8938	8938
1	0.0%	9044	9044
308	2.0%	9998	Geocode Missing

W3CN12_1		Num 2	More than 4 Link Intersection Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
874	5.8%	0	0
705	4.6%	1	1
528	3.5%	2	2
339	2.2%	3	3
269	1.8%	4	4
12169	80.1%	5-311	NOTE: Range of values omitted from display

1	0.0%	317	317
1	0.0%	327	327
1	0.0%	341	341
2	0.0%	344	344
308	2.0%	998	Geocode Missing

W3CN12_3		Num 2	More than 4 Link Intersection Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
126	0.8%	0	0
121	0.8%	1	1
134	0.9%	2	2
181	1.2%	3	3
162	1.1%	4	4
14161	93.2%	5-2044	NOTE: Range of values omitted from display
1	0.0%	2164	2164
1	0.0%	2450	2450
1	0.0%	2572	2572
1	0.0%	2642	2642
308	2.0%	9998	Geocode Missing

W3CN12_5		Num 2	More than 4 Link Intersection Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
10	0.1%	0	0
25	0.2%	1	1
47	0.3%	2	2
46	0.3%	3	3
47	0.3%	4	4

14710	96.8%	5-4326	NOTE: Range of values omitted from display
1	0.0%	4432	4432
1	0.0%	4523	4523
1	0.0%	4806	4806
1	0.0%	5025	5025
308	2.0%	9998	Geocode Missing

W3CN12_8		Num 2	More than 4 Link Intersection Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
3	0.0%	2	2
1	0.0%	3	3
5	0.0%	4	4
9	0.1%	5	5
14	0.1%	6	6
14853	97.7%	7-9076	NOTE: Range of values omitted from display
1	0.0%	9092	9092
1	0.0%	9105	9105
1	0.0%	9159	9159
1	0.0%	9267	9267
308	2.0%	9998	Geocode Missing

W3CN13_1		Num 2	Link (Roads) Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
4	0.0%	0	0
20	0.1%	1	1
17	0.1%	2	2
45	0.3%	3	3

45	0.3%	4	4
14754	97.1%	5-1012	NOTE: Range of values omitted from display
1	0.0%	1013	1013
1	0.0%	1016	1016
1	0.0%	1033	1033
1	0.0%	1220	1220
308	2.0%	9998	Geocode Missing

W3CN13_3		Num 2	Link (Roads) Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	5	5
1	0.0%	7	7
2	0.0%	8	8
1	0.0%	9	9
1	0.0%	10	10
14879	97.9%	11-6830	NOTE: Range of values omitted from display
1	0.0%	7067	7067
1	0.0%	7099	7099
1	0.0%	7545	7545
1	0.0%	7661	7661
308	2.0%	9998	Geocode Missing

W3CN13_5		Num 4	Link (Roads) Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	11	11
1	0.0%	26	26
2	0.0%	29	29

1	0.0%	32	32
1	0.0%	37	37
14879	97.9%	38-15500	NOTE: Range of values omitted from display
1	0.0%	15859	15859
1	0.0%	16096	16096
1	0.0%	16140	16140
1	0.0%	16601	16601
308	2.0%	99998	Geocode Missing

W3CN13_8		Num 4	Link (Roads) Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	54	54
1	0.0%	58	58
1	0.0%	67	67
1	0.0%	108	108
1	0.0%	125	125
14880	97.9%	130-29925	NOTE: Range of values omitted from display
1	0.0%	29976	29976
1	0.0%	30316	30316
1	0.0%	30400	30400
1	0.0%	33049	33049
308	2.0%	99998	Geocode Missing

W3CN14_1		Num 2	Node (Intersections) Count, 1km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
31	0.2%	0	0

67	0.4%	1	1
86	0.6%	2	2
99	0.7%	3	3
94	0.6%	4	4
14508	95.5%	5-590	NOTE: Range of values omitted from display
1	0.0%	610	610
1	0.0%	617	617
1	0.0%	645	645
1	0.0%	724	724
308	2.0%	998	Geocode Missing

W3CN14_3		Num 2	Node (Intersections) Count, 3km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	2	2
2	0.0%	3	3
1	0.0%	4	4
1	0.0%	5	5
2	0.0%	6	6
14878	97.9%	7-4074	NOTE: Range of values omitted from display
1	0.0%	4166	4166
1	0.0%	4194	4194
1	0.0%	4439	4439
1	0.0%	4518	4518
308	2.0%	9998	Geocode Missing

W3CN14_5		Num 2	Node (Intersections) Count, 5km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label

1	0.0%	7	7
1	0.0%	19	19
1	0.0%	20	20
3	0.0%	26	26
1	0.0%	28	28
14878	97.9%	29-9679	NOTE: Range of values omitted from display
1	0.0%	9696	9696
1	0.0%	9700	9700
1	0.0%	9751	9751
1	0.0%	9786	9786
308	2.0%	9998	Geocode Missing

W3CN14_8		Num 4	Node (Intersections) Count, 8.05km NOTE: Smallest 5 and largest 5 values are displayed.
Frequency	Percent	Value	Label
1	0.0%	41	41
1	0.0%	42	42
1	0.0%	50	50
1	0.0%	77	77
1	0.0%	90	90
14880	97.9%	93-20168	NOTE: Range of values omitted from display
1	0.0%	20391	20391
1	0.0%	20660	20660
1	0.0%	20998	20998
1	0.0%	21555	21555
308	2.0%	99998	Geocode Missing