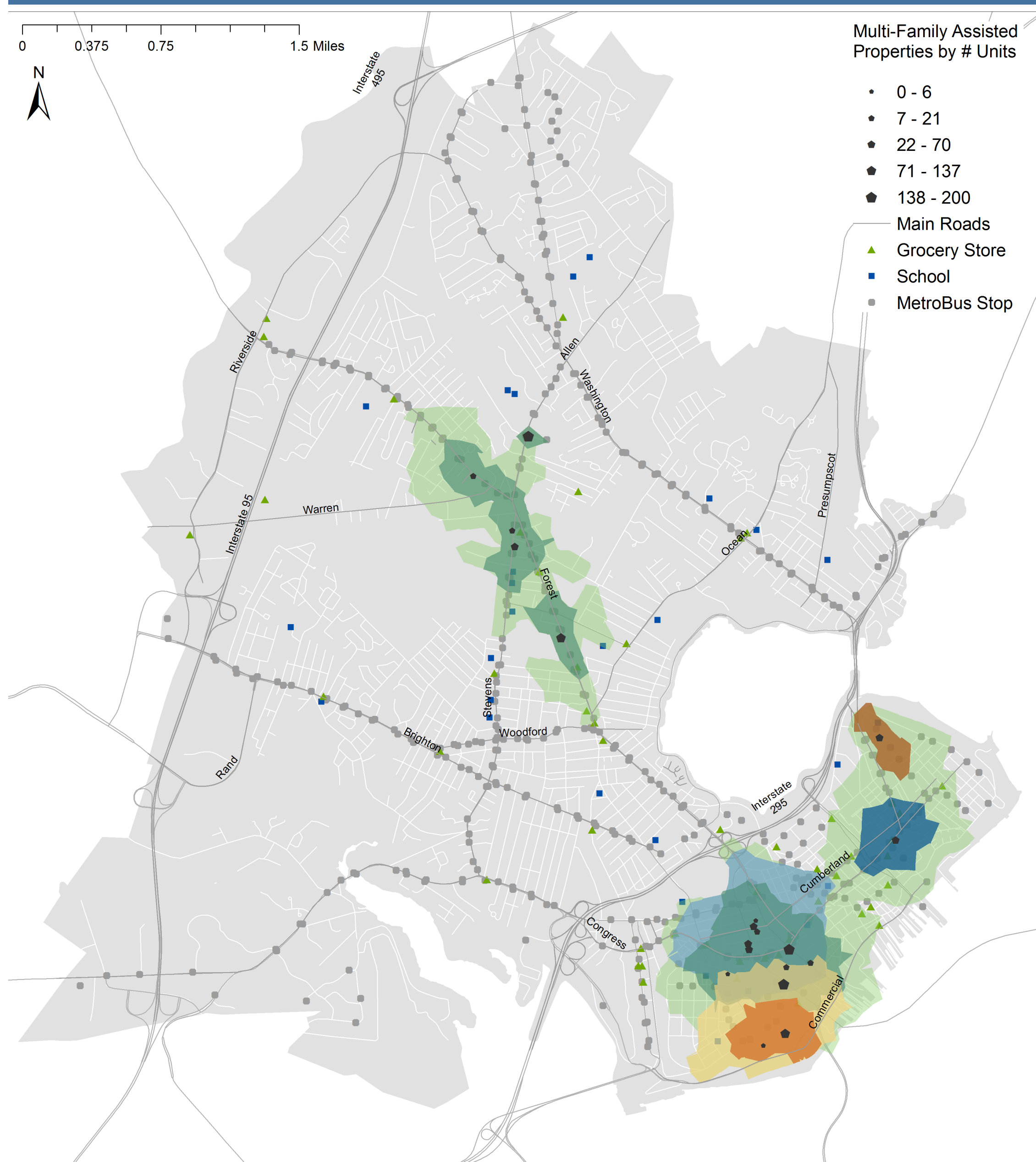


Affordability vs. Accessibility: Mapping the Walksheds of Affordable Housing in Portland, Maine

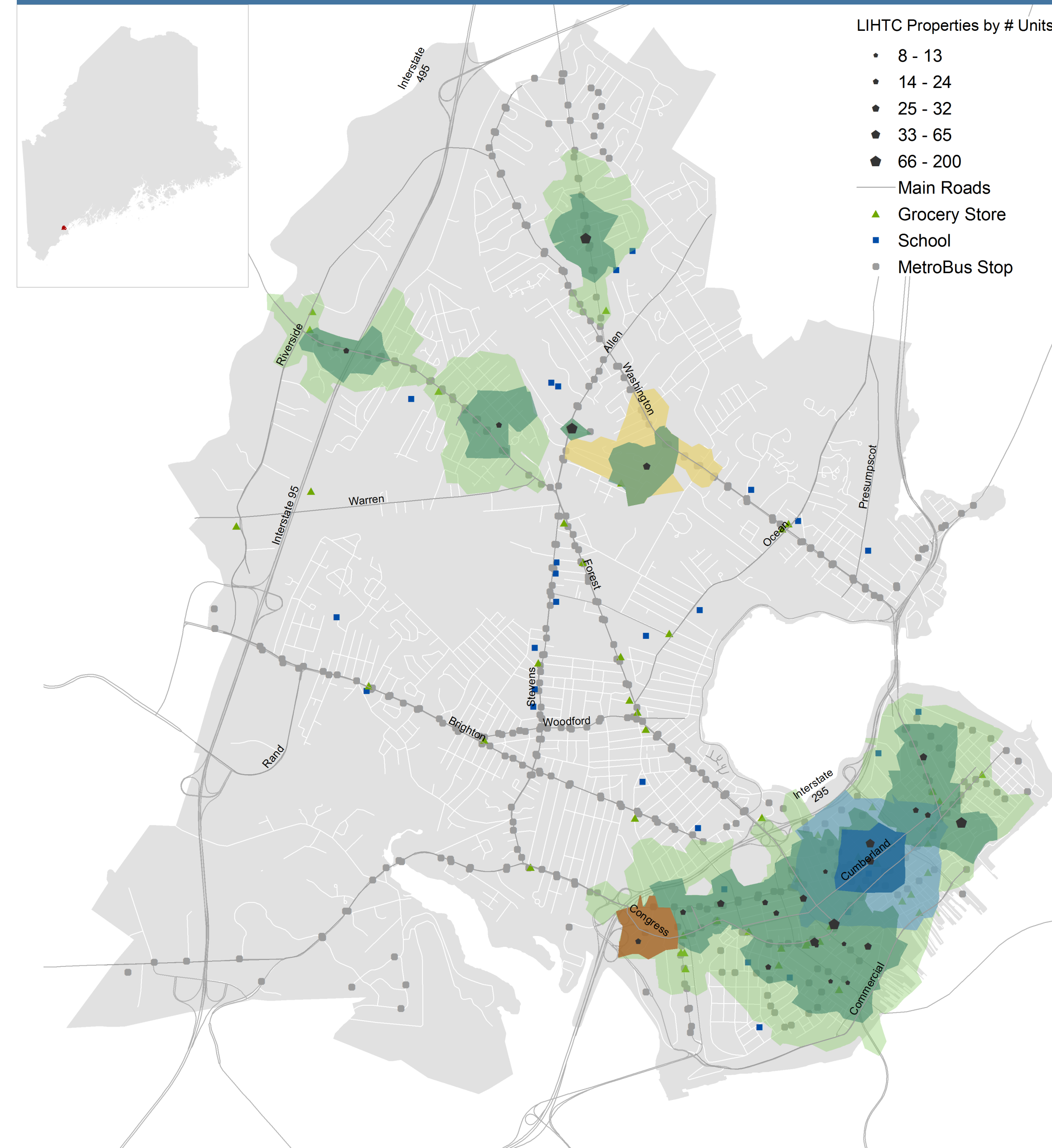
Cassie Mann | May 2014
 UEP 232 Introduction to GIS
 Data Sources: HUD Geospatial Data and
 Map Services; Maine Office of GIS; Greater
 Portland Council of Governments; Reference
 USA; ESRI Datapoint 10
 Projection: NAD_1983_UTM_Zone_19N_meters



1. Multi-Family Assisted



2. Low-Income Housing Tax Credit (LIHTC)



3. Public Housing

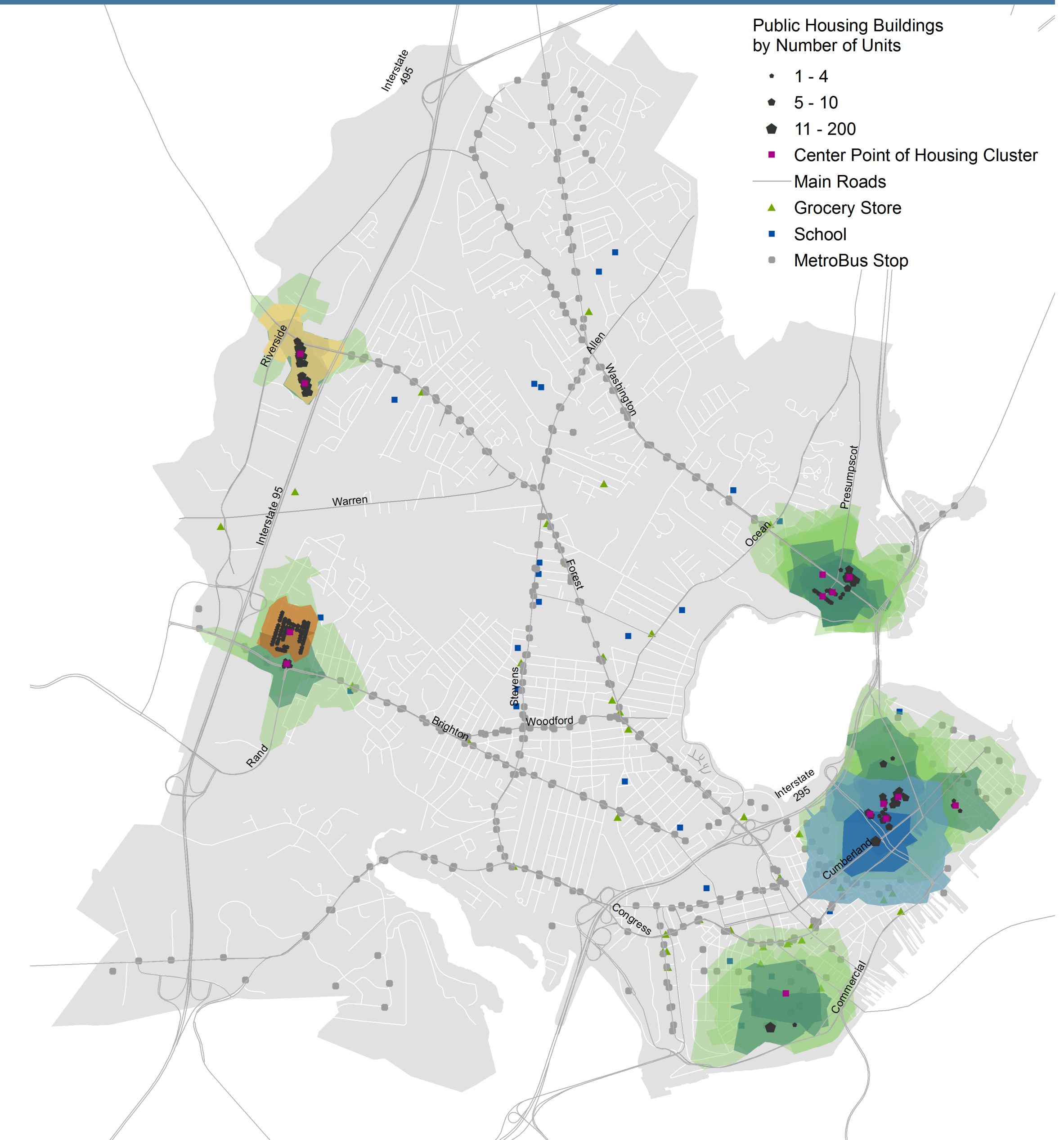


Table 1

Property Name	Street Address	Total Units	Grocery 1/4 mile	School 1/4 mile	Bus Stop 1/4 mile	TOTAL POINTS 1/4 mile	Grocery 1/2 mile	School 1/2 mile	Bus Stop 1/2 mile	TOTAL POINTS 1/2 mile
100 State Street	100 State Street	168	4	0	7	11	8	2	27	37
Bayview Heights	128 North Street	59	0	1	3	4	1	1	19	21
Brackett Street	232 Brackett Street	6	3	2	9	14	9	3	36	48
Burnham Court	10 Avon Place	18	3	0	7	10	9	2	41	52
Butler/Payson	218 State Street	56	5	0	9	14	9	3	39	51
Carleton Court	145 Spring Street	21	4	0	11	15	7	2	26	35
Congress Square Plaza	10 Congress Square Plaza	160	4	1	11	16	10	3	42	55
Cumberland Park Place	457 Cumberland Avenue	43	3	0	8	11	10	3	44	57
Danforth Heights	48 Salem Street	137	0	0	4	4	2	2	14	18
Deering Pavilion Forest Avenue Apartments	880 Forest Avenue	110	1	0	7	8	3	3	21	27
Ingraham House	1300 Forest Avenue	16	0	0	5	5	1	0	19	20
	79 High Street	12	2	0	8	10	8	2	25	35
Longfellow Commons	206 State Street	44	5	0	7	12	10	3	41	54
North School	248 Congress Street	60	4	0	17	21	9	1	40	50
107-131 Salem Street	107-131 Salem Street	0	0	0	4	4	2	2	14	18
Parkside Court	14 Sherman Street	5	1	0	6	7	9	3	37	49
Pleasant Street Housing	824 Stevens Avenue	20	1	1	11	13	2	3	26	31
The Park Danforth	777 Stevens Street	70	1	2	11	14	2	3	27	32

Introduction

This analysis evaluates the current inventory of federally funded affordable housing in Portland, Maine, to gauge how well it serves the basic needs of low-income residents in terms of walking accessibility to three key amenities: **grocery stores**, **schools**, and **bus stops**. By measuring how well the current stock of affordable housing meets residents' basic needs, we can inform future efforts to build housing that is both affordable and accessible to important amenities and valued community resources.

Methodology

To evaluate the walkability of existing affordable housing in Portland, I conducted network analyses to generate the 1/4 and 1/2 mile "walksheds" around data points for Multi-Family Assisted properties (e.g. Project-based Section 8), Low-Income Housing Tax Credit (LIHTC) properties, and Public Housing. I excluded larger roads like highways from my analysis, keeping only local and secondary roads, as these are more likely to be walkable for pedestrians. Because the Public Housing developments include many buildings that are spread

Table 2

Property Name	Street Address	Total Units	Grocery 1/4 mile	School 1/4 mile	Bus Stop 1/4 mile	TOTAL POINTS 1/4 mile	Grocery 1/2 mile	School 1/2 mile	Bus Stop 1/2 mile	TOTAL POINTS 1/2 mile
53 Danforth Street	53 Danforth Street	30	0	0	3	3	9	2	24	35
Auburn Terrace	246 Auburn Street	164	0	0	9	9	1	1	20	22
Bayside East	47 Smith Street	20	3	0	11	14	7	2	36	45
Casco Terrace	41 State Street	13	1	0	6	7	7	1	19	27
CHOM Scattered Sites Supportive Housing	25 Wall Street	24	0	0	7	7	1	0	16	17
Congress Square	579 Congress Street	160	4	1	10	15	10	2	42	54
Fore River Apartments	63 Frederic Street	20	0	0	2	2	6	0	17	23
Iris Park Apartments	189 Park Avenue	30	1	1	11	13	6	2	32	40
Island View Apartments	151 Walnut Street	29	1	0	12	13	5	2	32	39
Lafayette Square Apartments	638 Congress Street	65	5	0	10	15	9	3	34	46
Manjoy South	31 Mountfort Street	140	2	0	10	12	7	0	31	38
Townhouse Apartments	159 Oxford Street	60	3	1	13	17	12	1	43	56
PEARL PLACE	49 Hanover Street	9	1	0	15	16	7	2	41	50
PROF Family Housing Phase I	77 Grant Street	16	1	0	10	11	9	3	35	47
PROF Family Housing Phase II	135 Cumberland Avenue	20	4	0	14	18	9	2	36	47
PROF Family Housing Phase III	140 Park Street	8	5	0	11	16	9	2	33	44
Rosa True School	90 High Street	10	4	0	9	13	10	2	32	44
Shalom House	56 Sherman Street	21	1	0	8	9	9	3	34	46
Sherman Street Project	42 Gray Street	12	1	0	7	8	7	1	25	33
St. Dominic's School Apartments	275 Cumberland Avenue	26	4	1	18	23	13	2	48	63
Unity Village at Bayside	315 Valley Street	24	1	0	10	11	7	1	26	34
Valley Street Apartments	1 Walker Street	22	2	1	7	10	7	2	28	37
Walker Terrace	1818 Forest Avenue	19	0	0	8	8	2	0	13	15
Wellesley Estates	240 Harvard Street	30	1	0	2	3	1	0	13	14
Yale Court	231 High Street	32	1	0	8	9	11	2	42	55
YMCA Apartments										

Results & Conclusions

This analysis revealed that the size and richness of walksheds around Portland's affordable housing vary widely. **Tables 1-3** show the walksheds with the greatest number of amenities shaded in blue, and those with the lowest number shaded in orange. These high- and low-accessibility walksheds are displayed in **Maps 1-3**. Of all affordable housing in Portland, Unity Village at Bayside has the greatest number of amenities within both its 1/4

Table 3

Building/Cluster Name	Total Units	Grocery 1/4 mile	School 1/4 mile	Bus Stop 1/4 mile	TOTAL POINTS 1/4 mile	Grocery 1/2 mile	School 1/2 mile	Bus Stop 1/2 mile	TOTAL POINTS 1/2 mile
Bayside East - Cluster 1	44	3	0	8	11	6	1	34	41
Bayside East - Cluster 2	44	4	0	5	9	9	2	33	44
Bayside East - Cluster 3	12	1	0	8	9	5	0	29	34
Bayside Terrace	24	2	0	4	6	10	2	31	43
Dermot Court	4	0	1	10	11	6	3	24	33
Front Street - Cluster 1	5	0	0	9	9	2	2	19	23
Front Street - Cluster 2	19	0	1	8	9	0	1	15	16
Front Street - Cluster 3	26	0	0	4	4	0	1	15	16
Kennedy Park	42	1	0	1	2	7	1	26	34
Riverton Park - North	84	1	0	4	5	2	0	9	11
Riverton Park - South	66	0	0	1	1	2	0	4	6
Sagamore Village - North	160	0	0	0	0	0	0	8	8
Sagamore Village - South	40	0	0	7	7	1	1	13	15
Washington Gardens	100	0	0	8	8	0	1	16	17
Bayside East - Anderson	6	0	1	6	7	4	1	22	27
Bayside East - Hammond	4	0	0	8	8	4	2	25	31
Bayside East - Salem	3	0	0	4	4	2	2	14	18
Franklin Towers	200	3	1	9	13	12	1	46	59
Harbor Terrace	150	0	1	7	8	2	2	14	18
Liberty Square	1	0	0	6	6	0	1	16	17

and 1/2 mile walksheds, with 4 grocery stores, 1 school, and 18 bus stops located within 1/4 mile, and 13 grocery stores, 2 schools, and 48 bus stops within 1/2 mile. While Unity Village at Bayside boasts the greatest access to these amenities, it only has 26 total units. The northern cluster of the Sagamore Village public housing development has the least accessible 1/4 mile walkshed, with zero amenities that are walkable from its 160 units. The southern cluster of the Riverton Park development, which comprises 11 buildings and 66 units, had the least accessible 1/2 mile walkshed, with only 2 grocery stores, zero schools, and 4 bus stops in that walking distance. **Table 4** shows the mean areas and mean total points for each type of affordable housing.

	Mean Area 1/4 Mile (acres)	Mean Total Points 1/4 Mile	Mean Area 1/2 Mile (acres)	Mean Total Points 1/2 Mile
Multi-Family	68.6	10.7	274.4	38.3
LIHTC	70.3	11.3	276.5	41.8
Public	60.8	6.9	218.9	25.6

Overall, LIHTC properties have larger walksheds and are accessible to more amenities on average than Multi-Family Assisted or Public Housing. While this analysis is limited by the accuracy and currency of the data used, it provides a tool for evaluating the current affordable housing stock in terms of how well it connects residents to important resources. Policymakers, planners and advocates should ensure that any future affordable housing built in Portland is designed with both affordability and accessibility in mind.