Proposed Off Leash Dog Parks in Portland

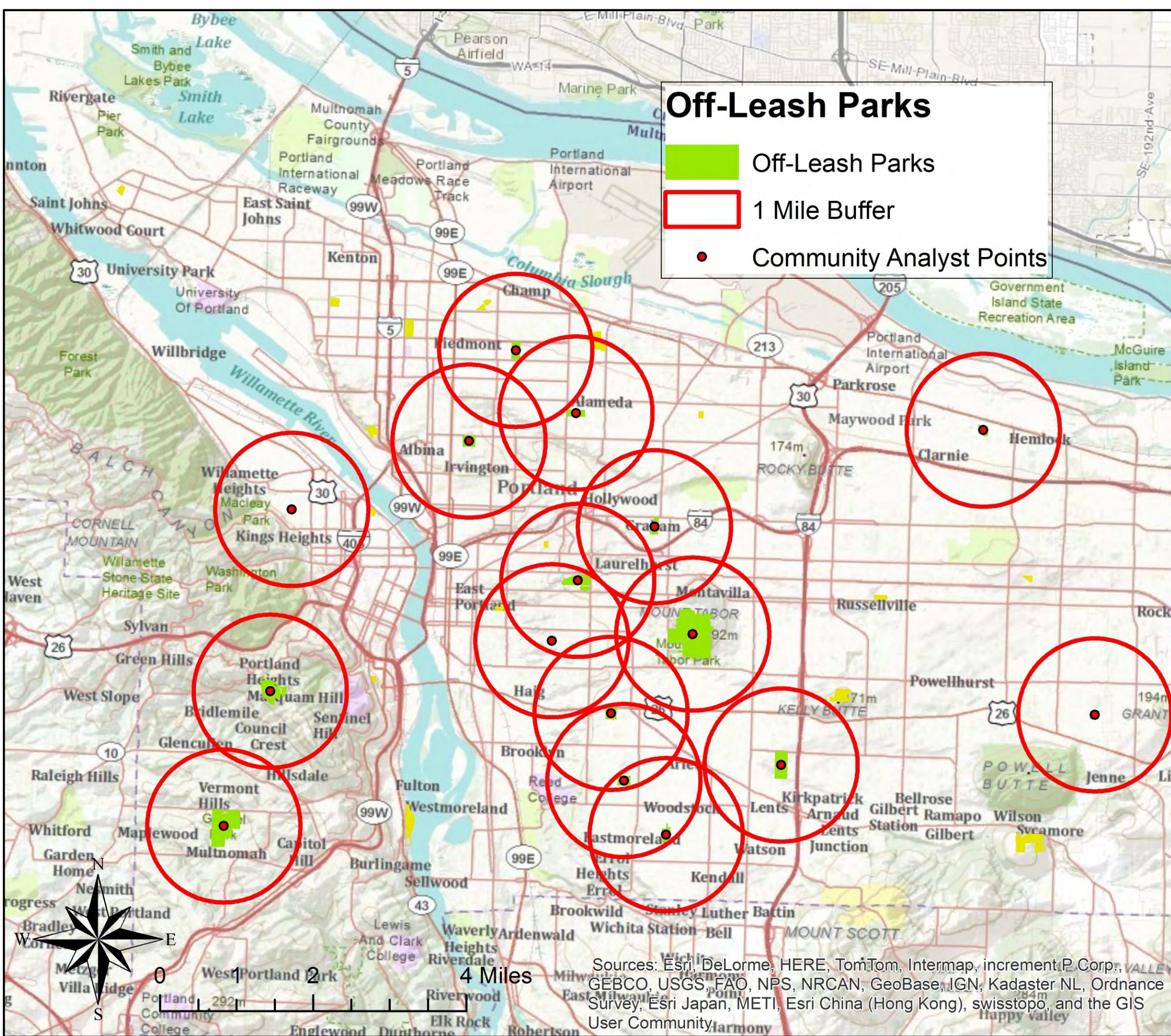## Jennifer Brewer and Harvey Hembree

Introduction

There are over 314 parks in the Portland Area, and of those we identified sixteen that contain designated off-leash areas for dogs. Portland is a city with a high number of dog ownership, and we were interested in seeing if we could identify areas that would benefit from having a nearby park open up new off-leash areas.

Our approach was to utilize a new tool, Esri's Community Analyst website, to identify the demographic statistics surrounding current off-leash dog parks. We would then utilize this data to compare to newly identified candidate parks that do not have off-leash areas, and see if the neighborhood surrounding the candidate parks closely resemble the demographics of current off-leash park neighborhoods.
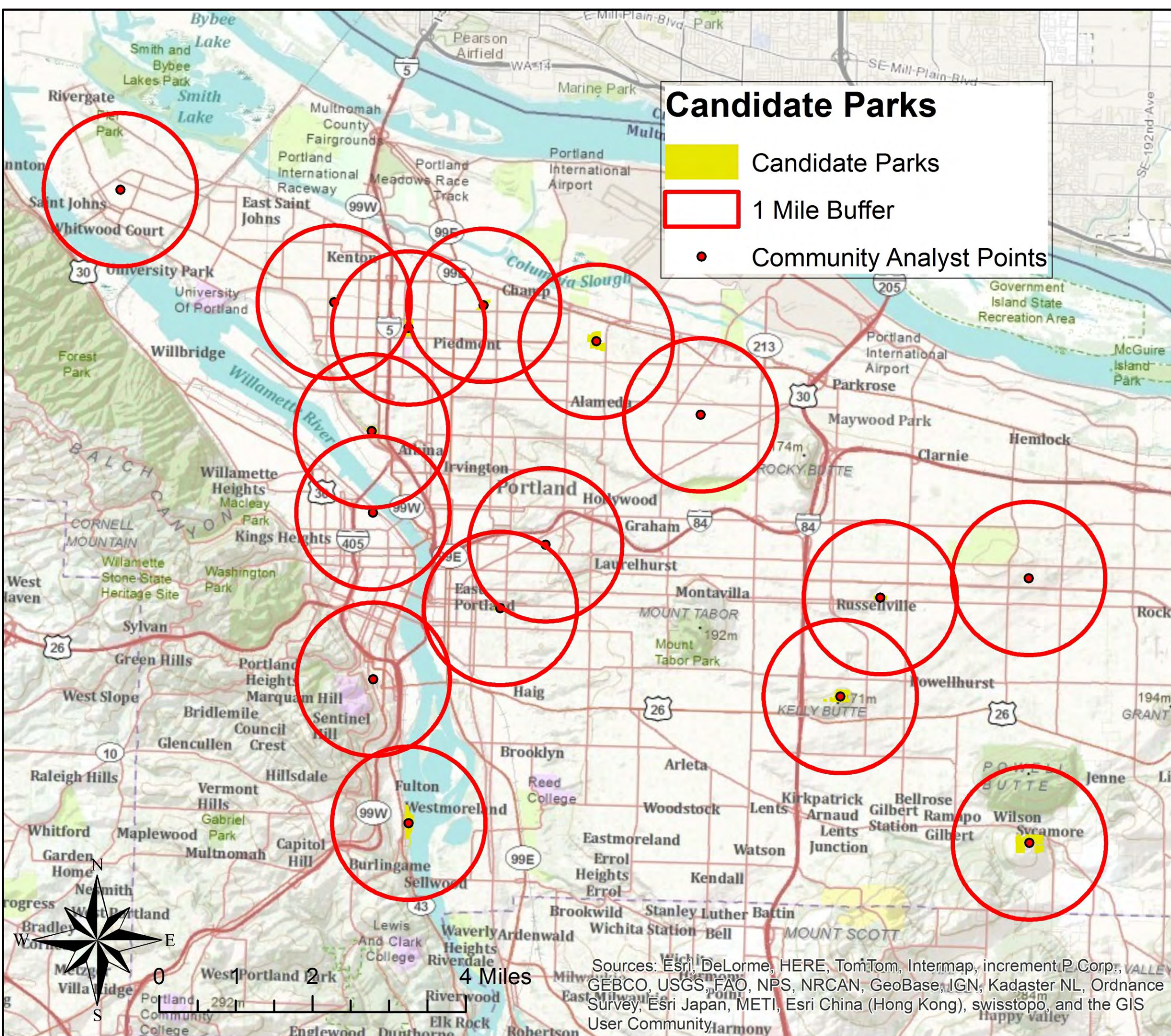
Materials and Methods

After importing the basic map layers into an ArcGIS geodatabase, the parks with off leash dog areas were identified by adding a row to the attribute table and marking "yes" in the cell for each park that had an off leash area. The data was then added to the map by using the "Select by Location" tool with Boolean algebra and exporting the results as a polygon layer. Sixteen more of the Portland Parks were selected at random as proposed areas for off leash dog parks. Demographic information was then pulled from the GIS Community Analyst Extension by creating a point layer on the Community Analyst map for the selected parks, creating a mile buffer around each point, and importing the demographic data from the buffer areas. The data was then imported into an excel spreadsheet and a T-test was performed, comparing the demographics from the control off leash dog park group to each of the proposed groups respectively. The T-test helped identify which demographic statistics were significant in choosing a new site for an off-leash area.

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Current Off-Leash Dog Parks	Lents Park	Brentood Park	Woodstock Park	Gabriel Park	Creston Park	Council Crest Park	Mt. Tabor Park	Sewallcrest Park	Laurelhurst Park	Normandale Park	Irving Park	Wilshire Park	Alberta Park	Argay Park	Lynchwood Park	Wallace Park
Female Median Age	34.9	35.7	35.9	40.7	35.8	45.5	39.5	33.6	34.6	39.3	35.9	39.4	34.9	43.3	36.5	34.0
Husband-Wife Families	3,127	3,610	3,647	2,761	4,183	2,239	3,841	4,429	4,088	3,765	4,790	3,516	2,063	3,083	2,559
Householder is White Alone	5,736	7,665	8,580	6,158	10,578	3,785	8,680	14,051	12,925	9,701	9,190	8,440	7,141	3,333	5,657	11,075
Owned Free and Clear	715	1,080	1,244	895	1,380	918	1,352	1,394	1,245	1,229	1,063	1,424	963	993	970	837

Normalized Values	Oregon Park	Woodlawn Park	Peninsula Park Rose Park	Arbor Lodge Park	Overlook Park	Pearl Park	St Johns Park	Ventura Park	Wellington park	Willamette Park	Clatsop Park	Colonel Summers Park	Fernhill Park	Glenfair Park	Kelly Butte Park	Lair Hill Park
Female Median Age	0.0627	0.0622	0.0622	0.0634	0.0601	0.0601	0.0606	0.0670	0.0676	0.0702	0.0626	0.0581	0.0638	0.0601	0.0629	0.0565
Husband-Wife Families	0.0909	0.0563	0.0757	0.0646	0.0305	0.0516	0.0503	0.0765	0.0761	0.0365	0.0641	0.0652	0.0597	0.0795	0.0738	0.0487
Householder is White	0.1135	0.0447	0.0677	0.0553	0.0320	0.1250	0.0426	0.0500	0.0600	0.0321	0.0522	0.1044	0.0439	0.0510	0.0473	0.0693
Owned Free and Clear	0.0891	0.0488	0.0684	0.0640	0.0306	0.0459	0.0401	0.0807	0.0942	0.0425	0.0693	0.0758	0.0596	0.0758	0.0656	0.0627
Totals:	0.3562	0.2120	0.2740	0.2474	0.1532	0.2825	0.1935	0.2846	0.2965	0.1814	0.2481	0.2906	0.2270	0.2663	0.2496	0.2371

Conclusions

Our T-test Analysis showed that common demographics in the buffer areas around existing off leash dog parks were older, white, two person households who owned their homes. Using the normalized candidate park demographics, we were able to identify which of the sixteen candidate parks most closely match the profiles of the current off-leash parks.

Oregon Park, on SE 30th and Oregon St was the best candidate location for a new off leash dog park. The total value for the normalized data indicate that the one mile neighborhood surrounding this park contains the highest number of households that are fully owned, have a white household owner, have the most Husband-Wife families, and have a significantly higher median age for females.

Sources

Metro RLIS data
ArcGIS Community Analyst Extension
Portland Parks and Recreation
U.S. Census 2010
Geoffrey Duh