

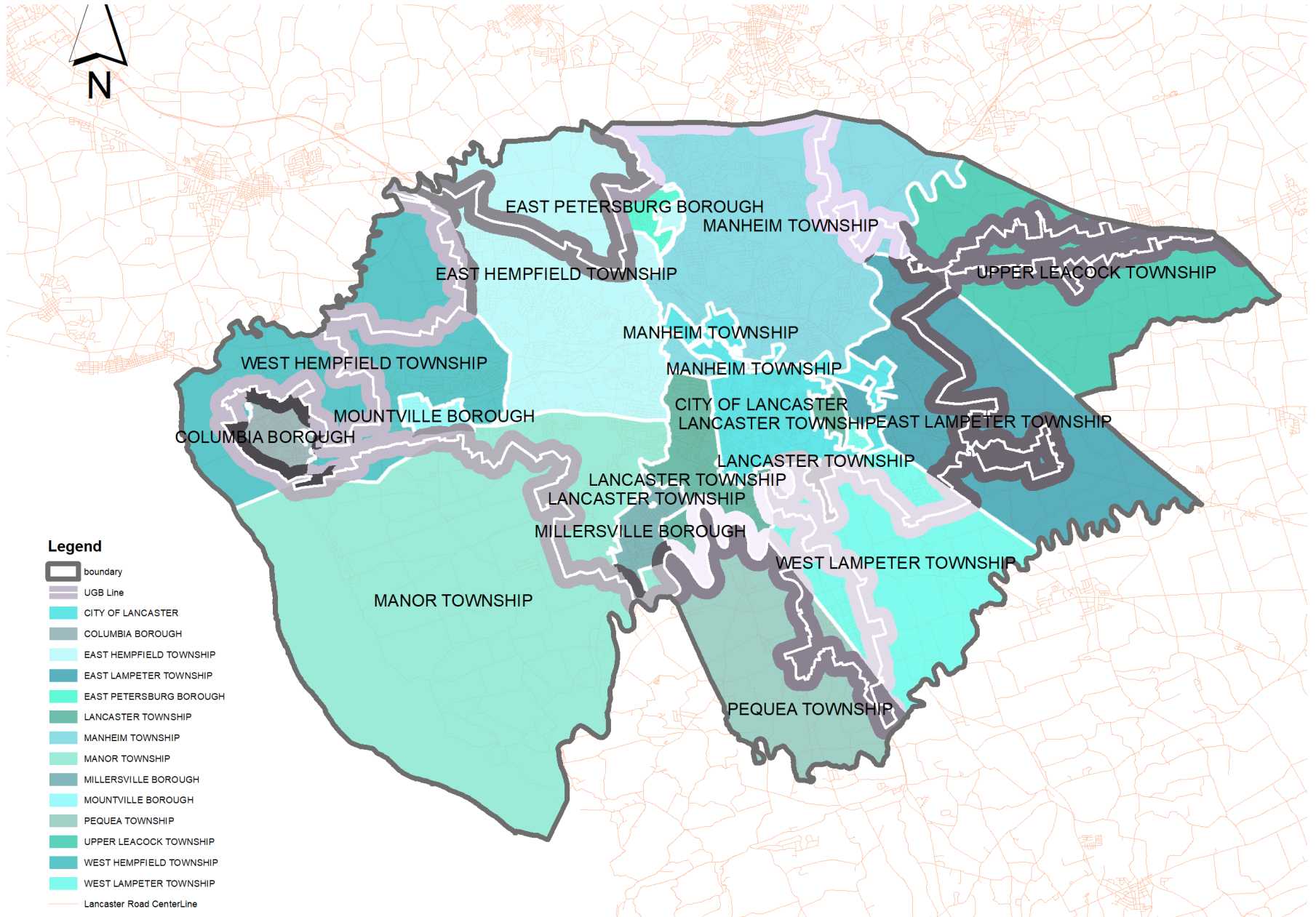
Homework 2_UGB_Study

MUSA 507

Spatial Analysis for Urban & Environmental Planning

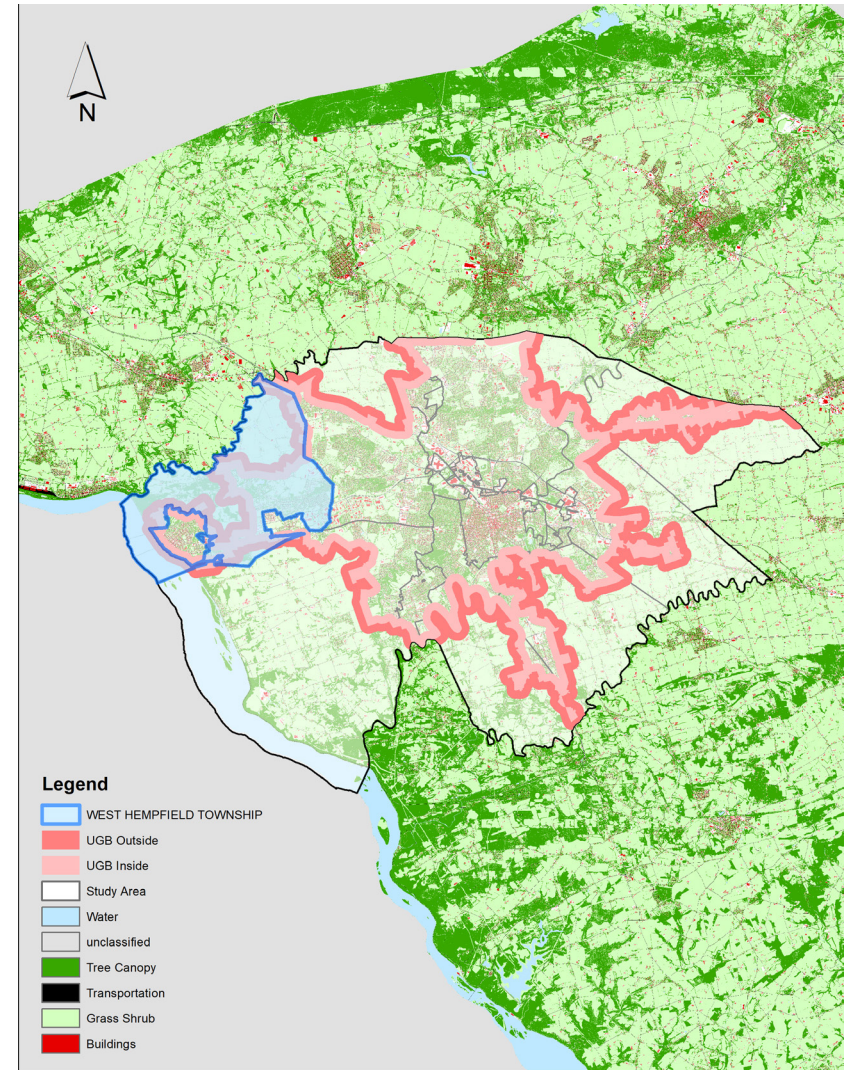
Jiaxin, WU

Buffer Inside and Outside UGB & Municipalities



Why West Hempfield Township the Best to Develop?

	Mean Sq Ft of Buildings			Density of Buildings (Sq Ft/Acres)			Grass Shrub Land in proposed UGB extension (Acres)
	Inside	Outside	Difference	Inside	Outside	Difference	
MUNICIPALI							
CITY OF LANCASTER	1570.4	0.0	1570.4	721.1	0.0	721.1	0.13
COLUMBIA BOROUGH	2594.6	3575.0	-980.3	3205.8	13337.9	-10132.1	0.53
EAST HEMPFIELD TOWNSHIP	5544.4	3074.0	2470.3	3852.5	805.1	3047.4	1592.13
EAST LAMPETER TOWNSHIP	4143.9	3412.1	731.8	4031.5	1181.5	2850.0	2243.98
EAST PETERSBURG BOROUGH	2089.7	0.0	2089.7	4420.6	0.0	4420.6	0.10
LANCASTER TOWNSHIP	1926.2	0.0	1926.2	1158.6	0.0	1158.6	0.01
MANHEIM TOWNSHIP	2687.8	2799.3	-111.5	2122.4	434.5	1687.9	843.94
MANOR TOWNSHIP	2722.6	2438.3	284.3	2024.1	572.5	1451.7	1703.71
MILLERSVILLE BOROUGH	3378.5	NULL	NULL	3578.6	NULL	NULL	NULL
MOUNTVILLE BOROUGH	3125.1	NULL	NULL	8134.3	NULL	NULL	NULL
PEQUEA TOWNSHIP	2276.9	1686.3	590.6	1809.0	589.4	1219.6	2271.67
UPPER LEACOCK TOWNSHIP	4035.6	2576.5	1459.0	5990.4	678.9	5311.5	2599.66
WEST HEMPFIELD TOWNSHIP	2240.7	1857.3	383.5	3253.6	441.6	2812.1	3318.68
WEST LAMPETER TOWNSHIP	2330.2	3505.2	-1175.0	3426.9	573.9	2853.0	2180.29
	Sum of Daily VMT			Mean SqFt of Parking Lots			Grass Shrub Land in proposed UGB extension (Acres)
	Inside	Outside	Difference	Inside	Outside	Difference	
MUNICIPALI							
CITY OF LANCASTER	22575.0	0.0	22575.0	11539.7	0.0	11539.7	0.13
COLUMBIA BOROUGH	366055.0	2193.0	363862.0	34024.8	0.0	34024.8	0.53
EAST HEMPFIELD TOWNSHIP	474555.0	316466.0	158089.0	74753.3	114756.4	-40003.1	1592.13
EAST LAMPETER TOWNSHIP	306092.0	177483.0	128609.0	79679.0	97680.7	-18001.7	2243.98
EAST PETERSBURG BOROUGH	78186.0	23341.0	54845.0	14947.2	65111.0	-50163.8	0.10
LANCASTER TOWNSHIP	53799.0	16058.0	37741.0	18941.0	0.0	18941.0	0.01
MANHEIM TOWNSHIP	320915.0	406544.0	-85629.0	23383.7	56367.4	-32983.7	843.94
MANOR TOWNSHIP	68735.0	85389.0	-16654.0	18039.2	65345.1	-47305.9	1703.71
MILLERSVILLE BOROUGH	17134.0	NULL	NULL	19428.1	NULL	NULL	NULL
MOUNTVILLE BOROUGH	11435.0	NULL	NULL	78291.0	NULL	NULL	NULL
PEQUEA TOWNSHIP	100466.0	110806.0	-10340.0	42414.6	28416.4	13998.2	2271.67
UPPER LEACOCK TOWNSHIP	191625.0	133754.0	57871.0	62059.0	112828.9	-50769.8	2599.66
WEST HEMPFIELD TOWNSHIP	685917.0	661029.0	24888.0	46238.8	77756.0	-31517.3	3318.68
WEST LAMPETER TOWNSHIP	144221.0	123156.0	21065.0	34337.2	20341.3	13995.9	2180.29

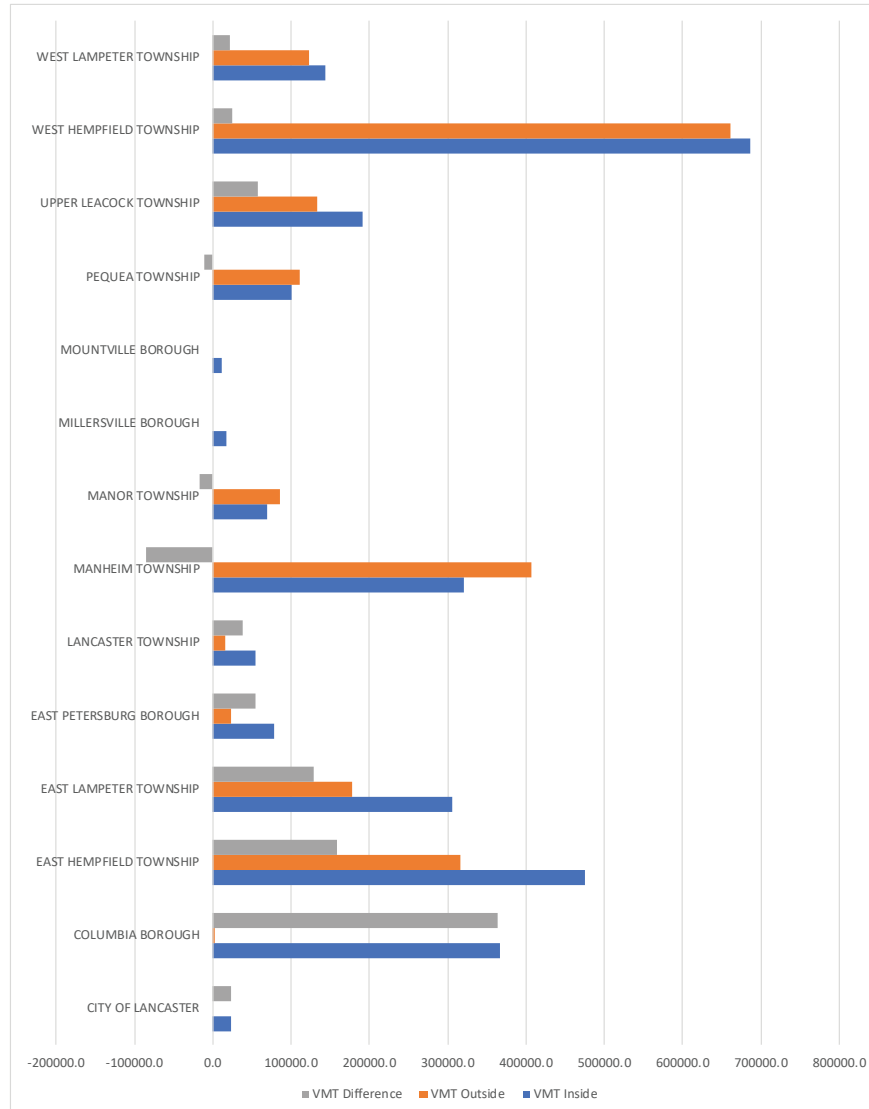


1) The first reason I chose **WEST HEMPFIELD TOWNSHIP** is that the **Sum of Daily VMT** and **Mean Square Foot of Parking Lots** outside are both largest, which means that some fundamental but quite significant facilities, in this context, roads and parking space, have spread over these areas. Therefore, future development can be carried out more easily based on existing infrastructure instead of from scratch.

2) i. Second, it has the 5th largest difference between inside **Density of Buildings** and outside. The great difference means that areas outside the UGB within this town has expansive land waiting to be exploited, considering that only a small proportion of land is covered with buildings. ii. Meanwhile, unlike some towns' outside density of buildings remaining 0, which occurs to me that perhaps some negative factors hinder locals from exploiting these areas, some construction activities have been carried out successfully.

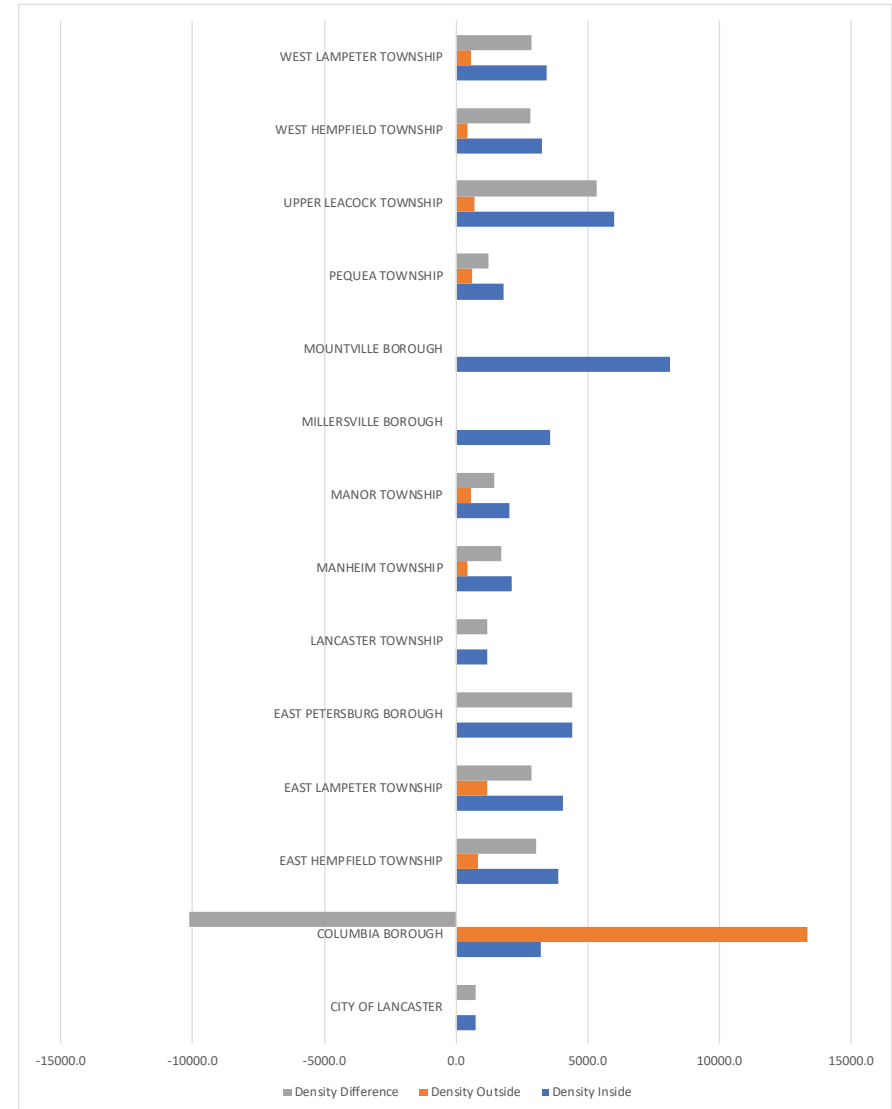
The Most Important Variables

Daily VMT of Mulicpality (Inside, Outside & Difference)



WEST HEMPFIELD TOWNSHIP has the largest ***Sum of Daily VMT*** and ***Mean Square Foot of Parking Lots*** in all towns.

Densit of Buildings (Sq Ft / Acres)of Mulicpality (Inside, Outside & Difference)



WEST HEMPFIELD TOWNSHIP has the fifth largest difference between inside ***Density of Buildings*** and outside.