



Permitting Public Health: Are Mixed Land Use Zones Improving Walkability?

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Research Questions

- ✦ Are municipal mixed use zone (MUZ) ordinances effective tools to increase walkable proximity to businesses and services, and, ultimately, to improve public health?
- ✦ What is the relationship between MUZ comprehensiveness and walkability of neighborhoods?

Hypothesis

Controlling for city population size and SES, the higher the MUZ comprehensiveness, the higher its walkability (defined as being pedestrian-friendly, pedestrian-accessible or pedestrian-oriented).

Hierarchical Linear Model Results

MUZ Walkability				
	Coefficient	Standard Error	t-ratio	p-value
Intercept	69.959246	59.764011	1.171	.27
Median Income	-0.000421	0.000229	-1.838	.10
Black	-153.499192	51.652544	-2.972	.02
White	-1.798114	0.922019	-1.950	.08
Hispanic/Latino	-87.768351	31.992103	-2.743	.02
American Indian	330.225436	77.721646	4.249	.00
Pacific Islander	796.867707	544.674071	1.463	.18
High School Graduate	-245.752243	59.805119	-4.109	.00
Graduate Degree	208.876521	37.875602	5.515	.00
Age 0-19	118.248519	64.485217	1.834	.10
Age 35-59	454.943292	138.650204	3.281	.01
Age 60+	-166.175371	99.633212	-1.668	.13
Legal Score	0.203967	0.026160	7.797	.00
MUZ Size	46.068268	2.980205	15.458	.00

Study Conclusions

- ✦ The relationship between municipal ordinance comprehensiveness and the presence of daily use activities in the mixed use zones was significant in both OLS and HLM regression models.
- ✦ The more comprehensive and stringent the legal scores for specific use categories, the greater the presence of these uses in MUZs in both OLS and HLM regression models.
- ✦ Use of legal zoning data is a feasible method for predicting neighborhood walkability. Comparative, cross-sectional research designs can complement case study and archival approaches.

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