Urban Trees and Residential Yard Use in the City of Mississauga

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Introduction

Urban tree cover varies throughout cities and as a result, residents experience inequality in the benefits from trees. The City of Mississauga is no different in this regard, as the tree canopy cover fluctuates throughout it. Age of a neighborhood and the wealth of its residents are the major influences on tree cover (however, the purpose of this research is to focus on the individual residents' influence on tree canopy cover within the City of Mississauga).

This study takes a bottom-up approach, focusing on the impacts of the decisions made by residents regarding trees on their property and in their neighbourhoods. Two specific ideas are explored in this study: (1) the relationship between household characteristics and peoples preferences for neighbourhood trees and (2) residents' preferences towards what is grown on their property.

Neighbourhood Descriptions

The study included four neighborhoods within Mississauga: Lakeview, Meadowvale, Mineola, and Rathwood. Each vary in the age, average income, and property values. Neighbourhood descriptions and boundaries can be seen in Figure 1 and Table 1.

Neighborhoods	Household Value ($)	Majority of Houses Built pre or post 1970 (%)	Most Common Household Income	Most Common Educational Level	Employment Level (%)
Mineola	$581,419	80% (pre)	$30,000-$59,000	High school certificate or equivalent	67%
Meadowvale	$433,798	95% (post)	$60,000-89,000	University Bachelors degree	77%
Lakeview	$350,366	87% (pre)	$30,000-$59,000	High school certificate or equivalent	62%
Rathwood	$303,707	89% (post)	$30,000-$59,000	High school certificate or equivalent	93%

Table 1. Demographics of the four neighbourhoods.

Methodology

1) Mail-based survey was sent to a group of residents from 4 neighbourhoods in Mississauga.
2) Neighbourhoods were chosen because they represent areas that are different in their overall age and their property values.
3) A total of 1399 households were contacted, 253 from Mineola, 584 from Meadowvale, 256 from Lakeview, and 306 from Rathwood. The survey was limited to only single family houses.
4) Data from the returned surveys was organized on the spreadsheet according to the date it was entered and differentiated by the code that each survey was assigned.
5) Data was summarized by using basic statistical calculations.
6) Charts and tables were created to display the information gathered from each neighbourhood, which were then analyzed to make comparisons and identify trends.

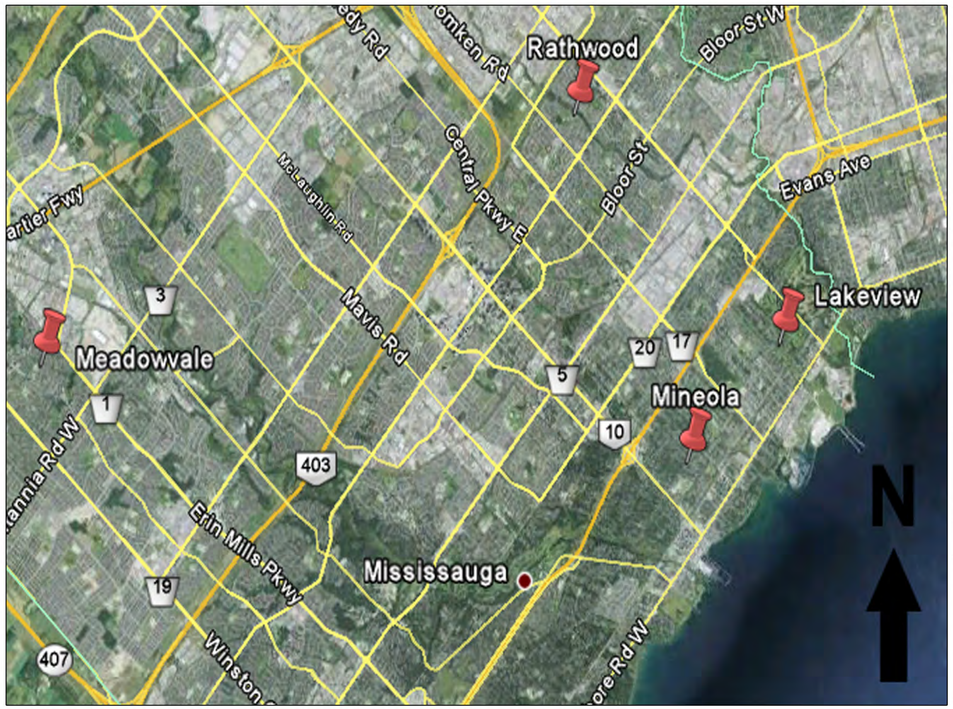

Figure 1. Aerial photograph of Lakeview, Meadowvale, Mineola, and Rathwood neighbourhoods in the City of Mississauga

Results

The response rate in each of the neighbourhoods were 44% for Lakeview, 35% for Meadowvale, 47% for Mineola, and 34% for Rathwood.

Vegetation Types Present	Front Yard				Back and Side Yard			
	Lakeview	*Meadowvale*	*Mineola*	*Rathwood*	*Lakeview*	*Meadowvale*	*Mineola*	*Rathwood*
No Front, Back, or Side.	1%	2%	0%	6%	1%	0%	0%	1%
Grass	97%	95%	96%	90%	92%	97%	93%	80%
Flowers	98%	82%	92%	77%	84%	77%	88%	71%
Shrubs	82%	67%	90%	60%	79%	68%	91%	49%
Vegetables	4%	1%	2%	3%	51%	41%	46%	36%

Table 2. Percentage of vegetation types present for front and back yards between the four neighbourhoods.

References
* Demographics of Neighbourhood Descriptions (Lakeview, Meadowvale, Mineola, and Rathwood) were compiled using the Statistics Canada 2006 Census Information

Statements Regarding Municipality	Strongly Agree (%)	Agree (%)	Neither agree or disagree (%)	Disagree (%)	Strongly Disagree (%)
Municipality should increase street trees	26	22	33	16	3
Municipality should provide information about planting and caring of trees	28	36	27	7	2
Municipality should provide trees at a reduced cost	32	35	24	7	2
Municipality should not allow people to cut down trees on their property	24	21	25	23	7

Table 3. Respondents' opinions on the municipality regarding tree care and by-laws.

Trees present, planted, and removed in residents yards.	Front Yard				Back/Side Yard			
	Lakeview	*Meadowvale*	*Mineola*	*Rathwood*	*Lakeview*	*Meadowvale*	*Mineola*	*Rathwood*
Current average number of trees	2	2.63	3.6	3.2	3.3	4.3	8.5	2.5
Respondents who removed a tree in last year (%)	16%	15%	18%	16%	15%	15%	29%	10%
Respondents who planted a tree in last year (%)	16%	10%	9%	9%	13%	15%	15%	5%
Respondents who planted a tree since moving in (%)	47%	62%	58%	31%	54%	53%	65%	24%

Table 4. Percentage of trees present, planted, and removed between the four neighbourhoods.

Conclusion

•Majority of respondents prefer to have large trees present in their yards and they recognize the importance of the economic and environmental benefits that trees can provide. 93% of respondents from the four neighbourhoods agreed that having at least one tree at their home is important to them. Over 75% of responding residents felt that neighbourhoods with trees are more attractive than those without trees. 85% of respondents agreed that they enjoy the cooling benefits of trees.
• 51% of Lakeview respondents and 46% of Mineola respondents indicated that they had vegetables present in their back yards. These are the highest proportion of respondents with vegetable growth in their yard. Both neighbourhoods are older and have mature trees. This shows that there is minimal conflict between having trees and a vegetable garden coexist.
• There is a demand for trees and more information from the municipality. 64% of respondents from all neighbourhoods, especially those within Lakeview and Rathwood, would like more information from the municipality about tree care. 67% of the population wanted trees provided at a reduced cost by the municipality. 88% of respondents stating that their ideal front yard includes at least one tree.