
4. Discussion and Conclusions

On a regional basis, census data can be used for a general depiction of patterns of population and job densities. These patterns are largely as expected: central Toronto has by far the highest residential and job densities in the region. Some smaller, older centres such as Hamilton and Kitchener also stand out, but beyond the central GTA, both population and employment densities are generally low, although there are scattered areas of newly developed residential areas with relatively high densities, certainly more than 40 people/ha. These densities occur in dissemination areas that, in effect, measure net densities because boundaries are tightly defined around subdivisions of very small-lot, ground-related housing. Other higher-density areas may be obscured by how census boundaries are drawn and the inclusion of large amounts of non-residential land.

In studying density beyond generalized patterns or the density of small areas, census data should be used very carefully. Measured densities depend on such things as the quality and consistency of data, how density is defined and measured, the size of the units of measurement, and where the boundaries of census tracts and dissemination areas happen to be drawn.

In this section, we review some of these issues and make some observations and recommendations for improving density calculations. Section 4.1 discusses general issues with defining and measuring density. Section 4.2 focuses on the use of census data. Section 4.3 recommends using parcel data to overcome some of the limitations of census data.

4.1 Defining Density

Definitions of density are diverse; there is no standardized definition or method of measuring density. The reasons for studying density influence how it is measured. Definitions and methodologies vary widely because of different research interests and policy concerns. **Table 1.1** catalogues the wide range of approaches used. In promoting regional planning and consistent monitoring of policy impacts, the Province needs to adopt its own definition and standard methodology for measuring the types of density that are of concern. If local municipalities are responsible for measuring and tracking densities in their jurisdictions, a single definition and methodology should be used throughout the region so that the results can be compared.

Gross density is not adequate for comparing densities or measuring intensification over time. The key issue in defining density is the distinction between gross and net density. Measures of gross density are easy to calculate and understand, but may be misleading, because very different types of land use are found in different places. Because some municipalities like Toronto are almost fully built-up and others have large amounts of undeveloped land, the use of gross or net measurements will make a huge difference in the way municipalities appear relative to each other. For example, **Figure 2.1** shows that Mississauga has a higher gross population density than Brampton, but **Figure 2.2** shows the reverse for net density. The same problem also emerges in the analysis of smaller units such as tracts or dissemination areas and in measuring changes in density over time. Different areas may have exactly the same amount of growth at the same intensity of development, but areas with smaller amounts of unbuilt land will appear to have grown denser than areas with larger amounts of unbuilt land, all else being equal.

Clearly defining what should be included in net measures of density is complex and difficult. The various development patterns found throughout the region was shown in the analysis of CTs associated with Urban Growth Centres in Section 3. Ideally, all built-up lands should be included, but it is difficult to obtain consistent, reliable data and to define exactly what “built-up” means. Greenspace and protected lands are especially hard to define. For example, small neighbourhood parks are usually seen as integral to development and defined as part of the built-up area, but large tracts of protected, environmentally sensitive lands are not. In between these extremes are an array of sizes and types of open space protected to different degrees by different levels of government. Roads present a similar problem: local streets are seen as integral to development and are often included as “built-up,” but limited-access highways serve regional purposes and do not provide direct access to development. Whether or not the rights-of-way for highways are included can substantially affect measured densities, without affecting the intensity of nearby development. Again, the Province needs to establish consistent criteria in this area.

A consistent method of defining the boundaries of measurement units is critical to meaningful density measurement and monitoring. The modifiable areal unit problem (MAUP) complicates the measurement of density. The size of the geographic units used and the location of their boundaries can have enormous impacts on the results. These problems are particularly acute in the analysis of census data.

4.2 Boundaries and Census Data

Using census data to describe urban form and measure changes in density is subject to several problems. Census data on population are the most complete, detailed, varied, and consistent data available, so it makes sense to use them to monitor population change, but the limitations of these data should also be clearly understood.

(1) *The size of Census Tracts on the urban fringe where most change is taking place makes detailed analysis of change in those areas impossible.* Tracts on the urban fringe tend to be extremely large and are only divided into smaller tracts as urbanization occurs. A typical CT in York Region north of Markham is 20 km², for example, whereas in recently built-up areas of Markham, the typical CT is about 1.7 km². It is possible to aggregate new tracts to correspond to

their previous boundaries and compare population changes across the larger, older area. It is not possible to go the other way and examine changes over time in the newer, smaller tracts where change is greatest. This problem will continue in the GGH as growth occurs in areas that now have very large CTs. Although it is too late to alter the 2006 census, the Province should work with Statistics Canada to define small CTs for all designated urban areas, if not for the entire GGH. This collaboration would allow for more consistent measurement of change over time.

(2) *The definition of boundaries for Dissemination Areas (DAs) and Census Blocks are inconsistent and problematic, especially in locations with high-rise apartments.* The problem of large tracts is mirrored at the DA and block level. DAs and blocks also become very large beyond Existing Built-up Areas. Moreover, DAs and blocks are geographically inaccurate and inconsistent in the way they capture dense, high-rise buildings. This problem is presumably a holdover from the days of Enumeration Areas (which were not designed to have stable boundaries over time), in which some apartment buildings were symbolically represented as trapezoids with areas smaller than the parcels on which the actual buildings sit. These trapezoids cannot be used for density calculations. If all high-rise apartment buildings of a certain size were identified the same way, measurements would at least be consistent, but this is not the case either. This is not an easy problem to fix. The Province should work with Statistics Canada to ensure that new DAs and Blocks are defined in a consistent way, either by aggregating them with the blocks in which they are located, or by defining them based on actual parcel boundaries.

(3) *The census is designed to study residential populations and poorly captures employment data.* In the data released to the public, jobs by place of employment is available only at the CT level or above, making small area analysis impossible. Statistics Canada can provide jobs data at the DA level, but because the data is based on a 20 percent sample, rather than 100 percent as for population, the accuracy and reliability of DA level employment data is questionable. Furthermore, suburban employment areas often have little or no residential population. Because census boundaries are defined according to population, CTs and DAs in employment zones tend to be very large. As with tracts on the urban fringe, this pattern reduces the value of density measurements in these areas. And beyond the census data, there are no consistent, reliable, region-wide data on place of work. These data are crucial for developing and monitoring growth policies, for transportation planning and modelling, and for the general analysis of urban form. The Province should work towards developing such a data set.

(4) *In general, census data does not consistently or accurately capture urban form, a purpose for which it is often used, but for which it was not designed.* The main reason has to do with boundary definition. In Section 3 we described the inconsistent ways in which census boundaries are defined with respect to employment centres: some CTs are drawn tightly around old downtowns, others capture large areas of residential use surrounding the downtown, and others capture only part of the downtown. In newer suburban areas, boundaries are seemingly drawn without reference to employment centres at all. The kinds of uses contained within these tracts, and therefore the results of either gross or net density calculations, appear to be arbitrary. Density calculations therefore measure different elements of form in all these cases and cannot be compared to each other. Although, over time, census data could be improved by predefining tracts throughout the entire GGH, defining DAs and blocks consistently, and collecting better employment information, the poor relationship between census boundaries and urban form probably cannot be fixed.

4.3. More Detailed Data on Land Use and Development

The Province of Ontario has recently launched an ambitious new approach to regional planning and growth management. It is the authors' opinion that census data are not adequate to monitor the impacts of these policies and other data must be found or developed. Consistent, region-wide data are needed to develop a detailed understanding of existing trends in population and jobs density, land use, development patterns, and housing issues.

Data collected to monitor policy impacts should be made widely and easily available to all those with an interest in regional development. As soon as possible, small CTs with permanent boundaries should be created for the whole area expected to build up during the next 20 to 30 years. Similarly, Dissemination Areas and Census Blocks should in future be drawn to fit built form more closely to capture patterns of density, intensification, and stability in urban areas.

A regional database on employment location, density, and output should be created. A better understanding of the trends in land consumption for employment purposes is essential in setting policy for employment lands, as well as in understanding the economic and land-use impacts of recent policy approaches.

Much better land use data, particularly at the regional scale, is also needed to analyse recent trends in land consumption and development densities, set targets for intensification, as well as monitor policy impacts. Parcel-level data, such as that held by Ontario's Municipal Property Assessment Corporation (MPAC), is increasingly used for regional policy development across North America. Although these data are not designed to measure population or employment, they are invaluable in measuring and tracking urban form for several reasons.

First, the parcel is the actual unit of land development. Being able to track the attributes of individual development units provides rich data on floor area, number of living units, number of storeys, date of development, and other attributes useful to tax assessment that can be used to describe built form at a very fine scale. Second, because these data are based on such small units of analysis, they can be aggregated in different ways to capture built patterns over larger areas. The analysis is not restricted by predefined boundaries. Also, how the data are aggregated and analyzed can be driven by the research and policy questions of interest. Using widely available GIS software, such data can be used at any scale from the parcel to the region. Compared to the limitations of census data discussed in this report, parcel data offer a potentially powerful tool for analysis.

The difficulty of getting access to parcel-based tax assessment data is a barrier to advancing research on patterns of existing development and change in the region. To assess provincial policy and its impacts, basic information on the density of new suburban employment areas, the amount of land set aside for parks, and the spatial relationship between retail and residential uses must be known. To answer these and other questions, parcel data, or a comparable data base, must be made as widely available as possible to researchers and policy analysts. More broadly, the Province should be working to develop its research and monitoring capacity, and encouraging independent research projects on the implementation and impacts of these far-reaching policies.

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Appendix A: Papers on the Mathematical Modelling of Density

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Appendix B: Density Measurement and Growth Management Practices Elsewhere

This appendix contains an overview of density measurements used elsewhere, as well as a chart detailing the growth management policies of some regions and municipalities for which information is readily available; the table is by no means exhaustive. Because so few details are provided on the methods and results of the density measurements discussed below, their relevance to this report is largely tangential.

Density measurements in practice elsewhere

The Office of the Deputy Prime Minister in Britain has created guidelines for calculating net density that are used throughout the United Kingdom. Net density includes access roads within a site, private garden space, car parking areas, incidental open space and landscaping, and children's play areas. It excludes major roads, primary schools, open spaces that serve wider areas, and significant landscaped buffer strips.³

The City of Renton in Washington State provides a density worksheet for calculating net density. Public streets, private access easements, and critical areas are subtracted from property area in making these calculations.⁴ Tacoma, Washington, calculates "Net Developable Acreage" as the gross site acreage minus public or private street rights-of-way and environmentally constrained lands.⁵ The City of Ames, Iowa, requires that net density calculations exclude public or private rights-of-way, public or private open space, areas of severe slope, areas containing certain natural resources, easements, part of the front yard setback on corner lots, and buffer lots next to large estate lots.⁶

3 Office of the Deputy Prime Minister. 2000. "Planning Policy Guidance 3: Annex C." Accessed online at www.odpm.gov.uk.

4 City of Renton, Washington. 2004. "Density Worksheet." Accessed online at www.ci.renton.wa.us.

5 City of Tacoma, Washington. 2004. "Parkland-Spanaway-Midland Urban Residential Zone Summary Sheet." Accessed online at www.co.pierce.wa.us.

6 City of Ames, Iowa. "Minimum Density Requirements for Single Family Housing." Accessed online at www.ci.ames.ia.us.

Growth Management regimes: a selective overview (States/regions with white background; municipalities with grey)

	Density definition	Density measurement	Scale of measurement	GM efforts	Carrots and sticks
Washington State ⁷	None	None	Counties and municipalities	Infill development, “urban growth areas,” transportation planning	Growth Management Act – requires counties and cities to plan in accordance with state goals; Growth Management Hearings Boards; grants to local governments
Oregon ⁸	Population density (gross)	people per square mile	Counties	Urban growth boundaries (UGB)s, Transportation and land-use planning, “Direct Community Assistance”	Oregon Transportation Rule – legislation requiring all levels of government to plan for decreased automobile use and increased use of alternatives; grants to municipalities
Florida ⁹	None given (assumed to be gross density)	people per square miles	Local governments	Protection of critical environmental areas; land use regulation	Financial sanctions against local governments whose plans are not consistent with the State Comprehensive Plan and the Growth Management Act; citizen participation is encouraged in challenging developments that are not compliant with local growth plans

7 <http://www.mrsc.org/subjects/planning/compplan.aspx?r=1>

8 <http://www.oregon.gov/LCD/TGM/index.shtml>

9 <http://www.dca.state.fl.us/growth/>

	Density definition	Density measurement	Scale of measurement	GM efforts	Carrots and sticks
Tennessee ¹⁰	None	Population growth is used as an indicator	Counties	Law requires a growth policy plan in each county, outlining urban growth boundaries (UGBs), planned growth areas (PGAs), and rural areas (RAs)	Implementation of the growth law is monitored by the Tennessee Advisory Commission on Intergovernmental Relations; state grants are given to those counties with growth plans; state agencies will sanction counties without plans
Ohio ¹¹	None	None	“Communities”	Brownfield development	Housing Enhancement Loan Program (HELP) – grants for revitalizing housing stock in older suburbs; Community Revitalization Initiative to encourage government and community cooperation
New Jersey ¹²	Various; not explicitly defined	People per square mile; dwelling units per acre	“Planning areas”	Integrated state planning; state infrastructure policy – anti-sprawl; urban revitalization; housing and transportation planning; resource protection	“Cross-acceptance” process ensures that local plans are harmonized with state-wide planning goals, and that the interests of citizens and local governments are met

10 http://tennessee.gov/tacir/Portal/Growth_Tennessee.htm

11 <http://www.firstsuburbs.org>

12 <http://www.nj.gov/dca/osg/plan/plan.html>

	Density definition	Density measurement	Scale of measurement	GM efforts	Carrots and sticks
Maryland ¹³	Net density	Dwelling units per acre; excludes land dedicated for public use, land protected from development by easements and local ordinances, cemeteries, and non-tidal wetlands	Local governments; parcel level	State infrastructure policy – anti-sprawl; brownfield development; Live Near Your Work program; job creation tax credit; Main Street Maryland program (urban revitalization); low interest mortgage loans in revitalization areas	Denial of state funding for infrastructure and schools in sprawling communities; Smart Growth Scorecard
Vermont ¹⁴	None	population growth	Municipalities	Encourage “the historic settlement pattern of compact village and urban centers separated by rural countryside;” preserve open spaces; urban intensification	Tax breaks to promote business developments downtown; tax to prevent land speculating; training for municipal land-use officials; state grants for municipal planning projects
Capital Region, BC (includes New Westminster, Nanaimo, Parksville, North Vancouver, Park Coquitlam, Kelowna, Vancouver, Richmond) ¹⁵	Population density; employment density; density of commercial space	Population / urbanized land area; population/ Metro Core area or other major centres; dwelling units / Metro Core area or other major centres; Jobs/ Metro Core or major centres or special employment areas; commercial floor space / Metro Core or major centres or special employment areas	Cities or districts	Infill; redevelopment; brownfield development; urban containment; natural resource management; housing and transportation policy	Implementation agreements between the CRD and any other level of government, first nations, school board or other authority; Smart Growth Scorecard

13 <http://www.smartgrowth.state.md.us/>; see also Siebert, S. 2000. “Growth Management Programs: a Comparison of Selected States.” State of Florida Department of Community Affairs. Accessed online at www.floridagrowth.org

14 <http://www.dhca.state.vt.us/Planning>

15 <http://www.crd.bc.ca/regplan/rgs>

	Density definition	Density measurement	Scale of measurement	GM efforts	Carrots and sticks
Auckland City, New Zealand ¹⁶	Net density	Households / developable residential land; population /developable residential land	Suburban town centres	Intensification in urban centres (infill and mixed-use housing)	Participatory planning; increased municipal service provision
Phoenix, Arizona ¹⁷	None	---	---	Infill housing	---
Shelburne, Vermont ¹⁸	None	---	---	Sewer infrastructure planning – anti-sprawl	---
Twin Cities, Minnesota ¹⁹	None	---	---	Sewer infrastructure planning – anti-sprawl	---
Boulder, Colorado ²⁰	Net density	Number of dwelling units per “net site acreage,” which is the land inside the parcel boundary excluding dedicated public street right-of-ways	Parcels	UGBs	---

16 <http://www.aucklandcity.govt.nz/council/documents/growthstrategy/default.asp>

17 <http://www.plannersweb.com/sprawl/solutions.html>; <http://www.ci.phoenix.az.us/BUSINESS/infillpgm.html>

18 <http://www.plannersweb.com/sprawl/solutions.html>

19 <http://www.plannersweb.com/sprawl/solutions.html>

20 <http://www.plannersweb.com/sprawl/solutions.html>; see also City of Boulder, Colorado. “Understanding Density and Floor Area Ratio.” Accessed online at www.ci.boulder.co.us.

Appendix C: Papers Evaluating Growth Management Policies

This appendix contains academic evaluations of growth management regimes around the world. Although these sources offer little in the way of transferable knowledge on density measurement and monitoring, they include articles on land monitoring (the process of assessing current and potential land uses) as it is applied to Smart Growth goals, particularly in the United States. These articles provide some insight into the development of a land monitoring policy.

Cho, C. 2002. "The Korean growth-management programs: issues, problems and possible reforms." *Land Use Policy*, 19; pp. 13–27.

Ding, C., G. Knaap, and L. Hopkins. 1999. "Managing Urban Growth with Urban Growth Boundaries: A Theoretical Analysis." *Journal of Urban Economics*, 46; pp.53-68.

Ever, D., E. Ben-Zadok, and A. Faludi. 2000. "The Netherlands and Florida: Two Growth Management Strategies." *International Planning Studies*; 5(1); pp.7-23.

Faludi, A. 1994. "Coalition Building and Planning for Dutch Growth Management: The Role of the Randstad Concept." *Urban Studies*, 31(3); pp. 485-507.

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Appendix D: All Greater Golden Horseshoe Municipalities Ranked by Total Population plus Jobs Density of Existing Built-up Area (EBA)

Municipality	Population + Jobs	EBA Pop. + Job Density /ha	Population Density /ha	EBA Job Density /ha	% Des- ignated Urban Area (DUA)	% EBA	% DUA that is EBA
Toronto	3,809,109	65.4	42.7	22.8	92.5%	92.5%	100.0%
Mississauga	961,705	37.6	24.0	13.6	93.9%	88.7%	94.5%
Hamilton	678,633	38.4	27.0	10.7	20.6%	15.8%	76.7%
Brampton	447,708	35.9	26.0	9.8	85.4%	46.8%	54.8%
Markham	325,205	33.0	21.1	11.8	55.8%	46.3%	82.9%
Vaughan	294,597	23.2	14.3	8.9	63.0%	46.4%	73.6%
Kitchener	271,949	35.2	24.6	10.5	82.7%	56.5%	68.4%
Burlington	221,841	34.1	23.0	10.9	42.8%	34.9%	81.5%
Oakville	212,893	28.1	19.1	9.0	81.8%	54.8%	67.0%
Oshawa	196,886	31.9	22.4	9.4	59.4%	42.4%	71.5%
St. Catharines	187,375	32.5	22.2	10.1	67.7%	59.3%	87.6%
Richmond Hill	179,475	33.2	24.3	8.8	69.1%	53.6%	77.7%
Guelph	168,485	31.4	19.8	11.6	89.9%	61.8%	68.8%
Cambridge	166,272	29.8	19.8	10.0	72.0%	49.5%	68.8%
Barrie	149,400	29.6	20.5	9.1	95.8%	65.5%	68.4%
Waterloo	139,973	34.1	21.1	13.0	85.6%	64.0%	74.8%
Brantford	123,867	26.0	18.2	7.9	91.3%	66.6%	72.9%
Pickering	118,774	31.6	22.9	8.4	31.3%	16.2%	51.7%
Whitby	117,333	24.9	18.5	6.4	47.4%	32.1%	67.7%
Niagara Falls	113,405	24.3	10.0	9.8	34.1%	23.0%	67.4%
Peterborough	107,961	26.0	17.2	8.8	101.1%	71.0%	70.2%
Newmarket	98,553	39.4	26.3	13.1	94.3%	65.8%	69.7%

Municipality	Population + Jobs	EBA Pop. + Job Density /ha	Population Density /ha	EBA Job Density /ha	% Designated Urban Area (DUA)	% EBA	% DUA that is EBA
Ajax	96,803	34.5	26.3	8.2	65.1%	41.8%	64.2%
Kawartha Lakes	87,334	33.2	12.9	6.9	1.6%	0.8%	48.4%
Clarington	86,009	23.0	17.4	4.3	13.6%	5.9%	43.3%
Welland	67,867	24.7	17.4	7.1	46.7%	32.6%	69.9%
Caledon	67,030	35.5	20.4	8.7	5.2%	2.6%	49.1%
Halton Hills	62,784	28.7	20.8	6.7	14.3%	7.7%	54.2%
Haldimand	58,733	38.8	17.1	9.9	2.1%	1.0%	45.9%
Aurora	56,522	29.4	20.9	8.5	72.2%	38.8%	53.7%
Milton	51,641	25.4	13.8	9.9	16.9%	5.4%	32.3%
Georgina	46,143	19.4	14.7	2.9	23.8%	8.1%	34.0%
Brant	43,714	19.7	11.2	5.4	8.1%	2.4%	29.7%
Orillia	43,641	21.3	14.2	7.1	96.9%	71.5%	73.8%
New Tecumseth	41,446	37.3	18.2	13.8	6.7%	4.0%	60.2%
Fort Erie	38,868	16.3	10.9	4.5	23.9%	14.2%	59.4%
Orangeville	36,233	38.0	26.3	11.5	95.2%	61.2%	64.3%
Innisfil	33,601	32.2	18.6	4.7	6.3%	3.5%	56.1%
Centre Wellington	32,185	25.5	15.8	6.3	4.4%	3.0%	66.7%
Whitchurch-Stouffville	29,478	30.0	16.7	7.6	13.9%	4.6%	33.3%
Lincoln	29,162	40.4	23.5	11.8	6.3%	4.4%	69.0%
Woolwich	28,566	23.7	14.4	8.6	7.1%	3.5%	49.6%
Bradford West Gwillimbury	28,038	39.4	29.0	8.2	9.2%	3.4%	37.1%
Grimsby	27,592	25.6	17.2	5.8	17.3%	15.7%	90.6%
Scugog	26,373	26.6	13.9	6.2	4.0%	2.0%	49.9%
Cobourg	26,347	22.8	14.9	8.0	68.3%	51.6%	75.6%
Midland	25,674	27.1	15.9	10.0	57.2%	32.2%	56.4%
Collingwood	25,634	15.3	9.6	5.7	96.9%	50.1%	51.7%
Thorold	25,253	23.5	16.3	6.7	25.8%	12.7%	49.2%
East Gwillimbury	24,765	22.8	17.0	3.9	14.6%	4.4%	30.1%
King	24,408	23.0	13.8	5.5	11.8%	3.0%	25.2%
Port Colborne	24,385	19.5	13.7	4.7	17.9%	10.0%	55.7%
Niagara-on-the-Lake	23,149	23.4	16.1	7.2	11.9%	7.0%	59.3%
Essa	22,848	43.7	19.5	11.6	6.1%	1.6%	25.4%
Uxbridge	22,302	29.5	17.4	6.5	2.8%	1.5%	52.4%
Oro-Medonte	21,780	29.2	14.5	4.6	2.0%	1.1%	57.7%
Port Hope	21,650	22.4	13.2	6.3	6.1%	3.2%	52.3%
Wilmot	20,141	25.9	17.3	6.8	5.1%	2.7%	53.4%
Smith-Ennismore-	20,114	65.5	17.7	12.0	2.2%	0.8%	34.8%

Municipality	Population + Jobs	EBA Pop. + Job Density /ha	Population Density /ha	EBA Job Density /ha	% Designated Urban Area (DUA)	% EBA	% DUA that is EBA
Lakefield							
Springwater	19,799	30.4	18.5	5.7	1.5%	1.1%	71.4%
Pelham	18,852	30.5	19.6	5.8	8.1%	4.9%	59.9%
Clearview	16,951	20.5	12.8	3.8	4.9%	1.3%	26.5%
Campbellford/Seymour, Percy, Hastings	16,669	26.3	10.7	6.5	2.5%	1.2%	47.7%
Wellington North	16,365	31.2	14.4	9.7	2.4%	0.9%	38.3%
Brock	15,800	32.6	16.4	7.6	2.6%	1.0%	39.4%
West Lincoln	15,378	44.3	17.0	9.0	1.9%	0.7%	34.9%
Wasaga Beach	14,399	8.6	7.4	1.2	76.3%	28.6%	37.5%
Guelph/Eramosa	14,349	36.1	17.1	8.0	2.8%	1.1%	40.5%
Severn	14,095	36.5	20.8	7.7	1.2%	0.6%	48.5%
Erin	13,617	24.8	12.3	4.7	3.6%	1.7%	45.9%
North Dumfries	13,204	34.2	17.0	11.5	5.8%	1.6%	28.2%
Mapleton	12,528	47.4	11.0	12.2	1.2%	0.3%	23.0%
Hamilton-Northumberland	12,465	37.5	15.4	5.1	20.5%	15.7%	76.5%
Penetanguishene	12,281	15.5	11.6	5.0	94.2%	31.2%	33.2%
Wellesley	11,940	34.3	18.9	7.4	1.8%	1.1%	61.2%
Adjala-Tosorontio	11,192	36.6	16.2	3.6	3.1%	0.6%	19.8%
Minto	10,784	21.6	11.2	5.3	2.9%	1.6%	54.4%
Cavan-Millbrook-North Monaghan	10,618	29.7	9.8	6.1	2.8%	0.9%	31.8%
Tay	10,382	16.3	10.0	1.9	7.6%	4.3%	56.9%
Ramara	10,160	28.4	12.5	4.3	3.2%	0.6%	19.6%
Tiny	10,055	65.8	22.6	6.7	1.2%	0.3%	25.8%
Puslinch	8,935	83.0	14.5	28.3	1.4%	0.4%	27.8%
Otonabee-South Monaghan	8,489	77.6	35.7	16.6	1.0%	0.1%	9.2%
Mono	8,357	243.4	45.4	41.8	0.5%	0.1%	14.4%
Douro-Dummer	7,527	103.2	21.6	12.0	0.9%	0.1%	9.8%
Cramahe	7,148	52.1	15.1	10.5	3.0%	0.7%	22.8%
Alnwick/Haldimand	7,041	38.3	14.8	6.5	1.7%	0.4%	20.9%
Shelburne	6,262	21.2	13.9	7.2	96.4%	65.1%	67.6%
Havelock-Belmont-Methuen	5,424	61.0	18.1	10.6	0.7%	0.1%	20.4%
Galway-Cavendish and Harvey	5,122	39.8	14.3	5.8	0.5%	0.1%	10.4%
Asphodel-Norwood	4,955	30.1	10.3	5.9	2.0%	0.7%	36.7%

Municipality	Population + Jobs	EBA Pop. + Job Density /ha	Population Density /ha	EBA Job Density /ha	% Designated Urban Area (DUA)	% EBA	% DUA that is EBA
Amaranth	4,260	113.0	26.6	13.0	1.2%	0.1%	10.4%
Mulmur	3,669	71.3	0.0	11.1	1.0%	0.0%	0.0%
Mnjikaning First Nation 32 (Rama First Nation 32)	3,382	768.2	12.3	632.6	0.4%	0.4%	98.7%
East Luther Grand Valley	3,367	38.7	25.7	6.0	1.2%	0.3%	25.0%
Melancthon	3,131	53.3	0	5.7	0.9%	0.0%	0.0%
North Kawartha	2,629	13.0	6.0	2.4	0.8%	0.2%	28.4%
East Garafraxa	2,544	142.4	0	18.5	0.3%	0%	0%
Six Nations (Part) 40	0	0	0	0	0%	0%	0%
Wainfleet	0	0	0	0	0%	0%	0%