



sustainable kingston

DESIGNING OUR COMMUNITY'S FUTURE... TOGETHER



Baseline Indicator Report - Brief
February 29th , 2012



INTRODUCTION

Background

In 2007, a new cycle of Community Strategic Planning was initiated and the Kingston community came together to share their ideas, time and enthusiasm to design our community's future. The Vision of Kingston – **Canada's Most Sustainable City** and the *Sustainable Kingston Framework* emerged!

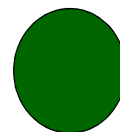
The Framework is composed of three elements: the plan, a website and the governing body. The *Sustainable Kingston Plan* is community owned and its success is dependant on all Kingstonians playing a role in its implementation. The *Plan* is premised on the four interconnected pillars of sustainability: culture, economic, environment and social. Within each of the pillars there are theme areas with indicators to enable progress to be monitored. The website provides a repository of actions taken by the community and the governing body guides the *Plan*.

The purpose of the *Sustainable Kingston Baseline Indicator Report* is to present the most current status of each of the indicators identified within the *Sustainable Kingston Plan*. This brief provides the highlights of the Indicator report.

Indicator Report Overview

The *Sustainable Kingston Plan* included four pillars, 20 themes and 40 indicators. Within the Indicator Report each of the 40 indicators were assessed to present: what is being measured, the source of the data, why is it being measured and where we are now? To determine where we are now, the data was compared against the following criteria:

- Meet or Exceeds Provincial/National levels,
- Meets or Exceeds benchmark municipalities,
- Demonstrates progress compared to past.



EXCEEDS EXPECTATIONS (3 pts)

Meets all three criteria



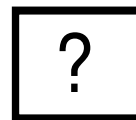
MEETS EXPECTATIONS (2 pts)

Meets at least one of the criteria



BELOW EXPECTATIONS (0 pts)

Does not meet any of the criteria



UNCERTAIN - Not sufficient data





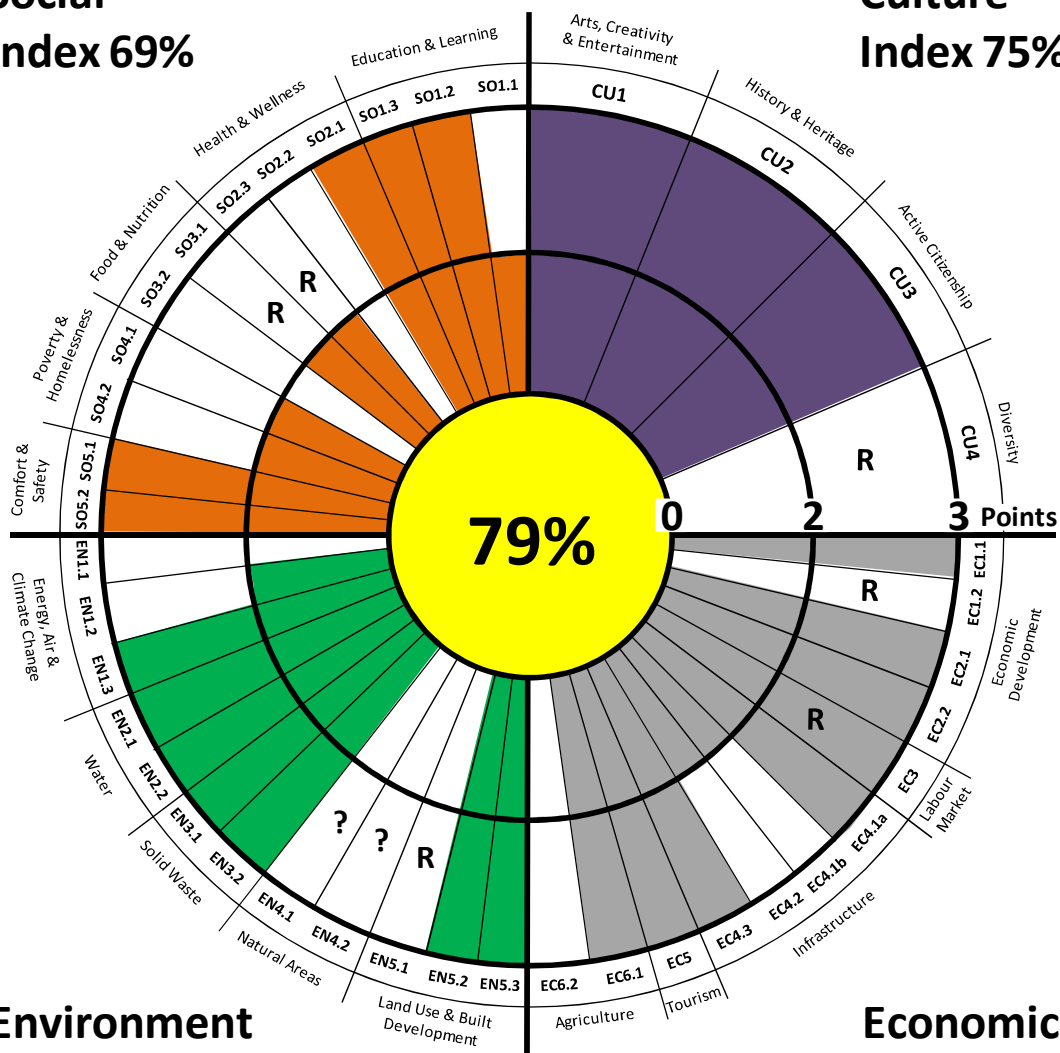
SUASTAINABLE KINGSTON BASELINE INDEX

This criteria was applied to each of the 40 indicators to determine if the indicator exceeded expectations (3 pts), met expectations (2pt), was below expectations (0pts) or if there was insufficient data (0pts). The Indices for each of the pillars is the compilation of this data. The indices of the four pillars were averaged to determine the *Sustainable Kingston* Baseline Index.

Sustainable Kingston Baseline Indicator Index

**Social
Index 69%**

**Culture
Index 75%**



**Environment
Index 85%**

**Economic
Index 85%**

R: Recommendations provided to enhance indicator
?: No comparison data available



Data Age and Source

The data collected to determine the 40 indicators came from 13 data sources. The age of the data ranged from 2006 to 2011. Thirty percent of the data set is over five years old from the Census 2006 data set.

Overview of Age and Source of Data Set				
Year	Percentage of Data Set	Number of Indicators	Indicators	Data Source
2006	30.0%	11	CU1, CU4, EC1-1, EC1-2, EC2-1, EC2-2, EC3, SO1-1, SO1-2, SO1-3, SO4-2	Census (2006)
		1	EC6-2	Census (2006) Agri. Profile
2009	32.5%	8	EC4-1a, EC4-1b, EC4-2, EC4-3, EC6-1, EN5-2, SO5-1, SO5-2	Municipal Performance Measurement Program
		2	EN3-1, EN3-2	Waste Diversion Ontario
		2	EN1-1, EN1-2	Community GHG Inventory
		1	EC5	Ministry of Tourism, Culture & Sport
2010	25.0%	7	CU2, EN2-1, EN4-1, EN4-2, EN5-1, EN5-3, SO3-1	City of Kingston
		2	EC1-1, EC1-2	Labour Force Survey (Stats.Can.)
		1	SO1-1	Can. Council of Learning
2011	12.5%	1	CU3	Elections Canada
		2	SO2-1, SO2-2	KFL&A Health Profile (June, 2011)
		1	EN2-2	KFL&A Health Unit
		1	SO3-2	Middlesex London Health Unit (CMA data summary)

Data Geographic Range

The data from 30 (75%) of the indicators was Kingston-specific. Nine (23%) of the data sets were from the Kingston Census Metropolitan Area (CMA) Kingston Frontenac Lennox & Addington and one (2%) of the data sets was from Kingston and the Islands.

Benchmark Municipalities and Data

It was possible to benchmark 35 (75%) of the indicators. Benchmark municipalities were selected based on the following criteria: located in Ontario with a comparable population to Kingston, comparable data available and similar top three economic sectors. The benchmark municipalities are: London, Guelph, Oshawa and Peterborough. Where possible, the Kingston indicator was compared to the benchmark municipal average, Kingston's past performance as well as Provincial and National averages.

Indicator Benchmark Summary			
Compare to Past Performance (Only)	Compare to Benchmark Communities/CMA (Only)	Compare to Both Past Performance and Benchmark Communities/CMAs	No Comparisons Possible
CU2, EC5, EN2-1, EN2-2, SO3-1	CU4, EN2-1, EC2-2, EC6-2, SO1-2, SO1-3, SO2-1, SO2-2, SO4-2, SO3-2, SO4-1, SO5-1	CU1, CU3, EC1-1, EC3, EC4-1a, EC4-1b, EC4-2, EC4-3, EC6-1, EN1-1, EN1-2, EN1-3, EN3-1, EM3-2, EN5-2, SO1-1, SO2-3, SO5-2	EC1-2, EN4-1, EN4-2, EN5-1, EN5-3
12.5%	30.0%	45.0%	12.5%



CULTURE PILLAR: *Cultural Vitality*

The focus of the Culture Pillar is the enhancement of both quality of life and quality of place. While art, culture and heritage bring beauty, depth and meaning to our lives, they also nurture individual and community identity, promote social cohesion and contribute to the creation of social capital. The Culture Pillar has four themes and four indicators.

75%

Theme CU1: Arts, Creativity and Entertainment

CU1: % Workforce in related work ●

Theme CU: History and Heritage

CU2: # of Assets in Heritage Register ●

Theme CU3: Active Citizenship

CU3: Voter Turnout ●

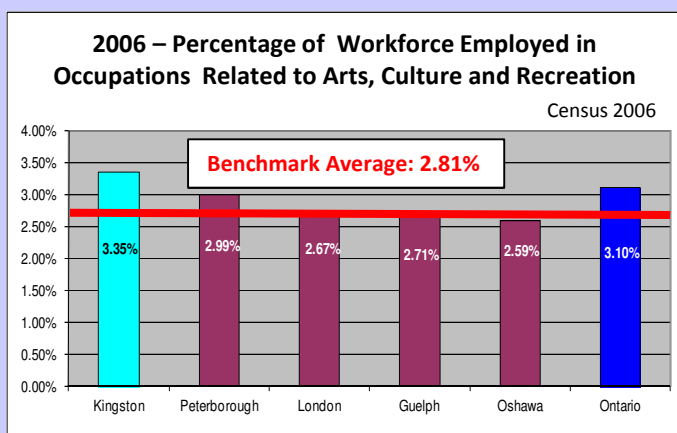
Theme CU4: Diversity

CU4: Visible Minority Percentage ■



Theme CU1: Arts, Creativity and Entertainment

In 2006, Kingston had the highest percentage of its workforce employed in jobs related to the arts, creativity and entertainment (3.35%) compared to the benchmark municipalities.



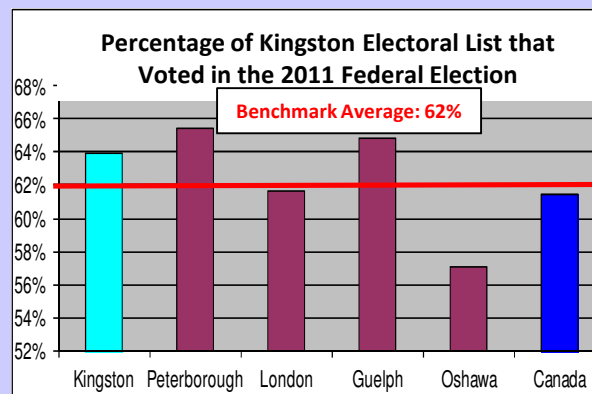
Theme CU2: History and Heritage

The number of registered and designated heritage assets increased from 975 in 2009 to 977 in 2010.



Theme CU3: Active Citizenship

Kingston and the Islands voter turnout increased by 2% from 62% in 2008 to 64% in 2011. During the 2011 Federal election, Kingston and the Island's voter turnout exceeded the national average (61%) and was comparable to the benchmark municipalities.



Theme CU4: Diversity

The percentage of Kingston's population that is part of a visible minority (7%) is lower than the benchmark average (10%) and much lower than the Provincial average (23%). It is recommended that this indicator be expanded to include other elements of diversity identified in the theme goals.



ECONOMIC PILLAR: *Economic Health*

Kingston is a city that is a vital, dynamic, and sustainable economic centre where research, innovation, investment and business thrive together and where a variety of people want to visit, live, work and do business. The Economic Pillar has six Themes and 12 indicators.

85%

Theme EC1: Economic Development

EC1-1:	Unemployment Rate	●
EC2-1:	Job Creation	?

Theme EC2: Community Economic Development

EC2-1:	Employment by Sector	●
EC2-2:	Entrepreneurship	●

Theme EC3: Labour Market

EC3:	Employment by Occupation	●
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Theme EC4: Infrastructure

EC4-1a:	Wastewater Backups	●
EC4-1b:	Water main Breaks	▲
EC4-2:	Transit Ridership	▲
EC4-3:	Commuting Mode	●

Theme EC5: Tourism

EC5:	Annual Tourism Revenues	●
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Theme EC6: Agriculture

EC6-1:	Preservation of Agr. Land	●
EC6-2:	Agr. Revenues and Intensity	■



Theme EC2: Community Economic Development

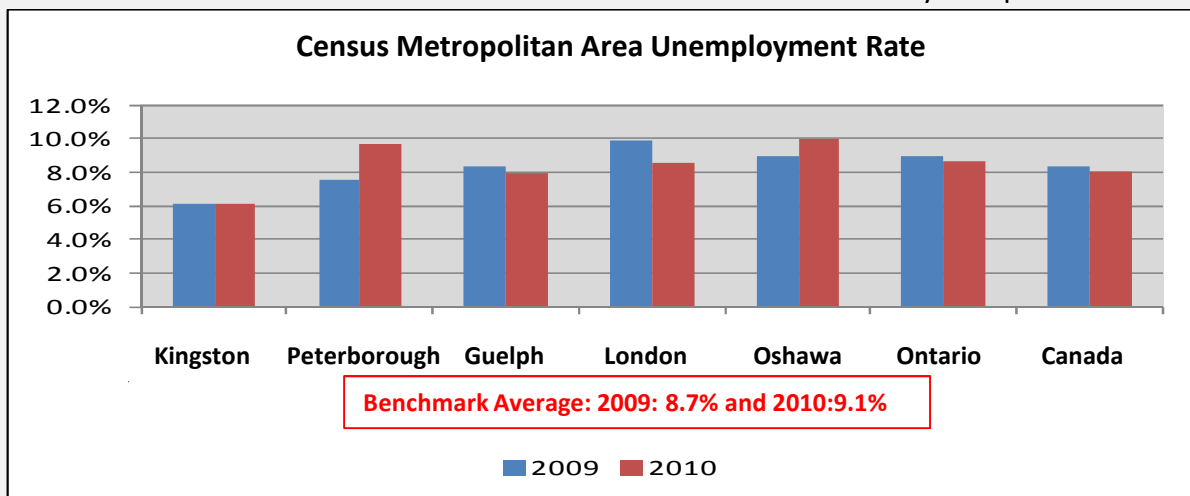
Kingston is the least vulnerable, compared to its benchmark municipalities, to a decline in one of its top three economic sectors. With 10.7% of its population self employed, Kingston is comparable to its benchmark municipalities for fostering an entrepreneurial culture.

Theme EC3: Labour Market Development

Kingston has a well balanced distribution of its labour force by occupation.

Theme EC1: Economic Development:

The Kingston Census Metropolitan Area (CMA) had the lowest unemployment rate in 2009 and 2010 compared to the benchmark, Provincial and National averages.



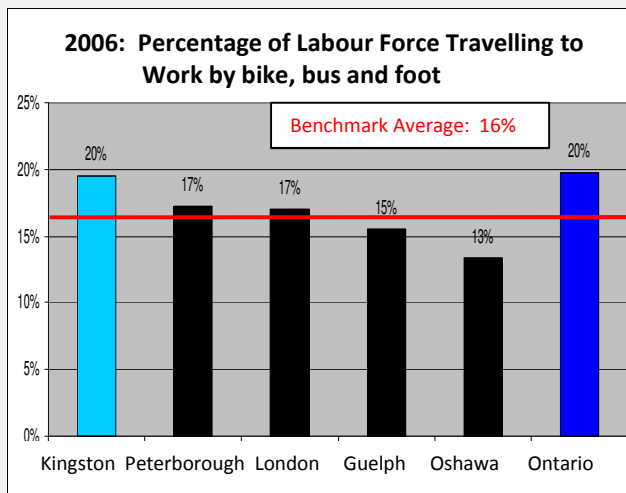


ECONOMIC PILLAR: *Economic Health*

Theme EC4: Infrastructure

(Water, Wastewater & Transit)

Kingston's number of annual wastewater main backups has declined over time and scores favourably below the benchmark municipal average. While the number of water main breaks has decreased, Kingston is higher than the benchmark average. Kingston's transit ridership has increased with time but is below the benchmark average. In contrast, Kingston has the highest percentage of commuters travelling to work on bike, bus and foot.



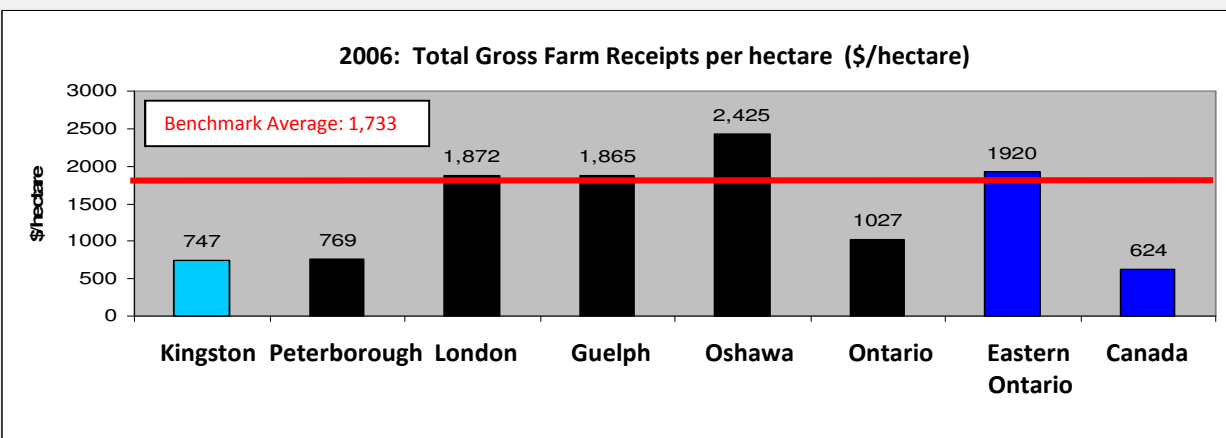
Theme: EC6: Agriculture

Since 2005, Kingston has maintained 100% of its land designated for agricultural purposes. Gross farm receipts per hectare of land farmed is a measure of both the health of the agricultural sector based on economic return and the intensity of the land use. While Kingston has a higher gross farm receipt per hectare than reported at the National level, it is the lowest of the benchmark municipalities and is below the Provincial average.



Theme: EC5: Tourism

Kingston's annual tourism revenues (food, and beverages, transportation, lodging, retail and entertainment) increased from \$275.22 million in 2008 to \$286.90 million in 2009. This is a 4% increase.





ENVIRONMENT PILLAR: *Environmental Responsibility*

The Environment Pillar has a first principal position. Global environmental challenges (climate change, dwindling non-renewable resources, shrinking natural habitats, and diminishing biodiversity) have economic, social and cultural elements. The Environment Pillar has five themes and 12 indicators.

85%

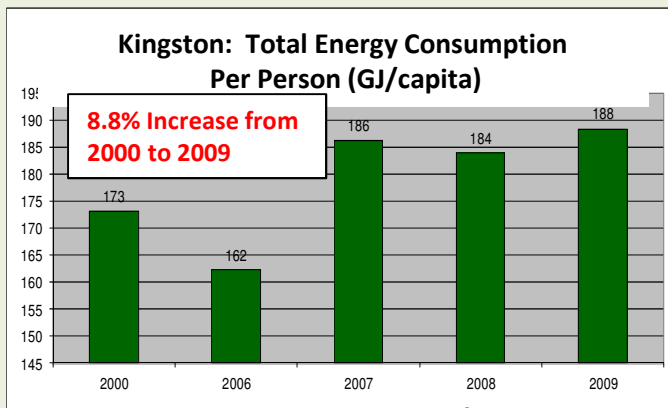
Theme EN1: Energy, Air and Climate Change		
EN1-1:	Energy Use	■
EN1-2:	Greenhouse Gas Emissions	▲
EN1-3:	Air Quality	●
Theme EN2: Water		
EN2-1:	Daily Residential Use	●
EN2-2:	Beach Water Quality	●
Theme EN3: Solid Waste		
EN3-1:	Residential Diversion	●
EN3-2:	Residential Landfill Waste	●
Theme EN4: Natural Areas		
EN4-1:	Dense Treed Areas	?
EN4-2:	Green Space	?
Theme EN5: Land Use and the Built Environment		
EN5-1:	Mix of Land Use	?
EN5-2:	Dwelling Growth Location	●
EN5-1:	Urban Dwelling Density	●



Kingston's greenhouse gas (GHG) emissions increased by 5% from 2000 to 2009, while the per capita GHG emissions decreased by 1.6%. In 2007, Kingston's GHG emissions/capita was below the benchmark average.

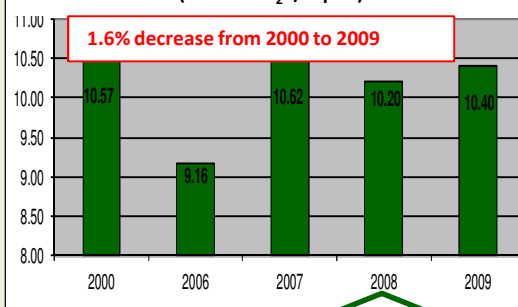
Theme EN1: Energy, Air and Climate Change

Kingston's energy use increased by 16% from 2000 to 2009. During this same period, the energy use per capita increased by 8.8% and for 2007 was above the benchmark average.



What is a Gigajoule? A Gigajoule (GJ) is a measure of energy. All the types of energy consumed by the community (i.e. electricity, natural gas, heating oil, and propane) have been converted to GJ to allow for a measure of total energy consumption. There is approximately 6 GJ of energy in the combustion of one barrel of oil.

Kingston: Total GHG Emissions Per Person (tonnes CO₂e/capita)



What is tonnes CO₂e? Carbon dioxide equivalent (CO₂e) is a measure used to compare the emissions from various greenhouse gases based on their global warming potential (GWP). For example, methane has a GWP that is 21 times that of carbon dioxide. This equivalency allows all of the emissions from various GHGs to be added.

The Air Quality Index (AQI) is an indicator of air quality based on air pollutants that have an adverse effect on human health and the environment. An AQI greater than 50 indicates poor air quality. In 2011, Kingston had zero days where the AIQ was greater than 50.



ENVIRONMENT PILLAR: *Environmental Responsibility*

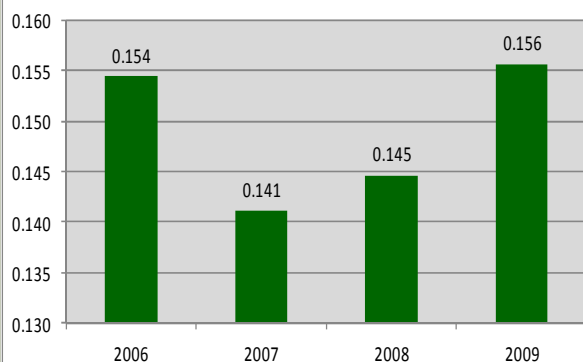
Theme EN2: Water

The average Kingston residential daily water consumption decreased by 4% from 220.5 liters/capita in 2009 to 211.6 liters/capita in 2011. There was a significant improvement in the number of beach closure days in 2011 compared to previous years

Theme EN3: Solid Waste

In 2009, Kingston's residential diversion rate of 0.156 tonnes/capita was above the benchmark average. Kingston's 2009 tonnes/capita of residential waste disposed of in landfill showed improvement to previous years and was comparable to the benchmark average.

Kingston: Residential Waste Diverted from Landfill (Tonnes/Capita)



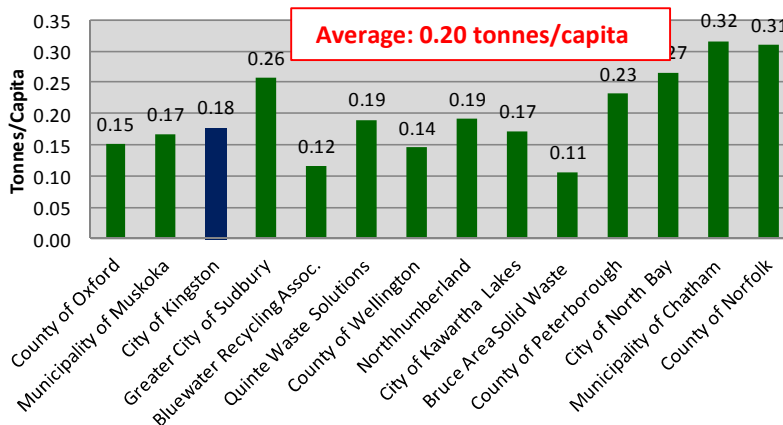
Theme 4: Natural Areas

In 2009, Kingston had a tree canopy area of 28% and in 2011, 2.5% of Kingston's area was parkland and protected areas. Historic data is not available for comparison.

Theme 5: Land Use and the Built Environment

Approximately 54% of Kingston's land area is rural agricultural. In 2009, the percentage of new residential units within settlement areas was 98% which is comparable to Peterborough and Oshawa. The Kingston urban residential dwelling density increased from 21.7 dwelling units/ha in 2006 to 23.1 dwelling units/ha in 2010.

Residential Waste Disposed of in Landfill (tonnes/capita)
Waste Diversion Ontario (2009)





SOCIAL PILLAR: *Social Equity*

Social agencies and citizens will raise awareness about social needs and will engage both citizens and community partners to plan and act in response to these needs. The Social Pillar has five themes and 12 indicators.

69%

Theme SO1: Education and Learning

SO1-1:	Composite Learning Index	▲
SO1-2:	Educational Attainment	●
SO1-3:	Highschool Graduation Rate	●

Theme SO2: Health and Wellness

SO2-1:	Access to Physicians	●
SO2-2:	% Obese or Overweight	■
SO2-3:	Recreation Program Hours	▲

Theme SO3: Food and Nutrition

SO3-1:	# of Community Gardens	▲
SO3-2:	Cost of Nutritional Food	■

Theme SO4: Poverty and Homelessness

EN4-1:	Low Income Households	▲
EN4-2:	Housing Affordability	▲

Theme SO5: Comfort, Safety and Inclusion

EN5-1:	Crime Severity Index	●
EN5-2:	Weighted Clearance Rate	●

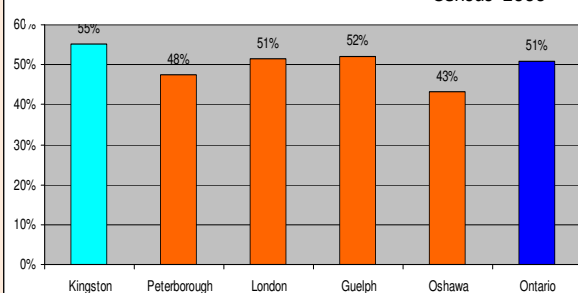
Theme SO1: Education and Learning

The Composite Learning Index (CLI) is a statistical measure that reflects how people learn at work, home, school and in the community. In 2010, Kingston's CLI was the lowest of the benchmark municipalities but was higher than the national average.

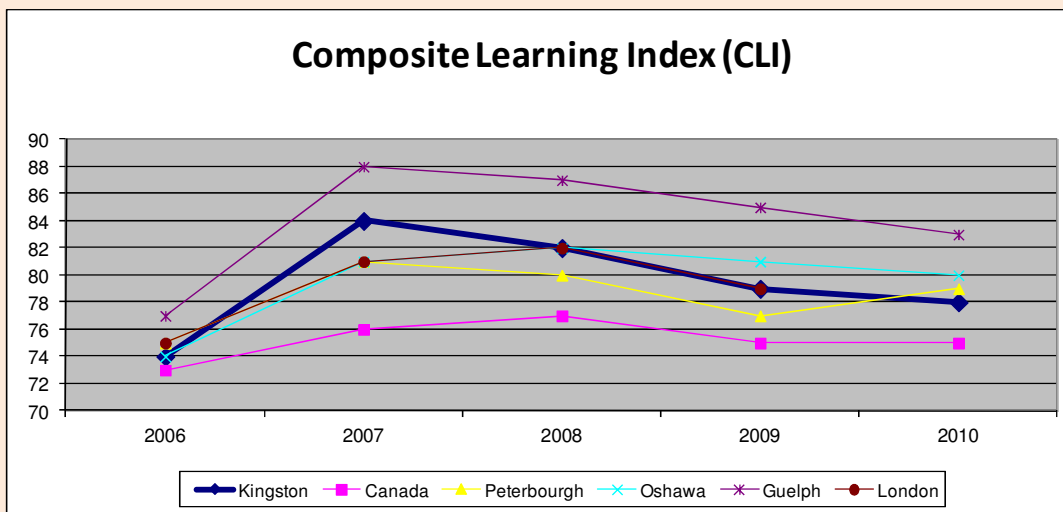


In comparison to the benchmark municipalities and the Provincial 2006 averages, Kingston had the highest population percentage that had a post secondary education (55%) and that had graduated from high school (82%).

Percentage of Population with Post Secondary Education
Census 2006



Composite Learning Index (CLI)

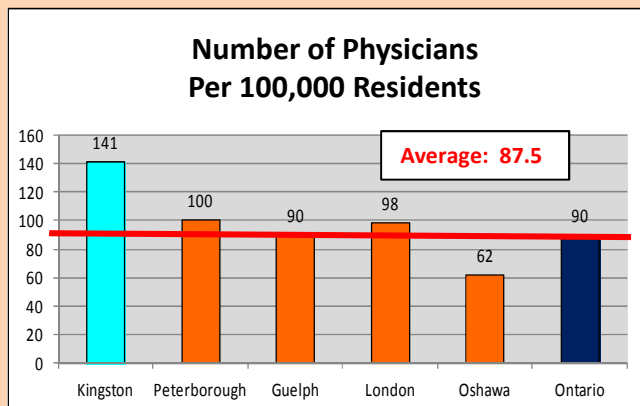




SOCIAL PILLAR: *Social Equity*

Theme SO2: Health and Wellness

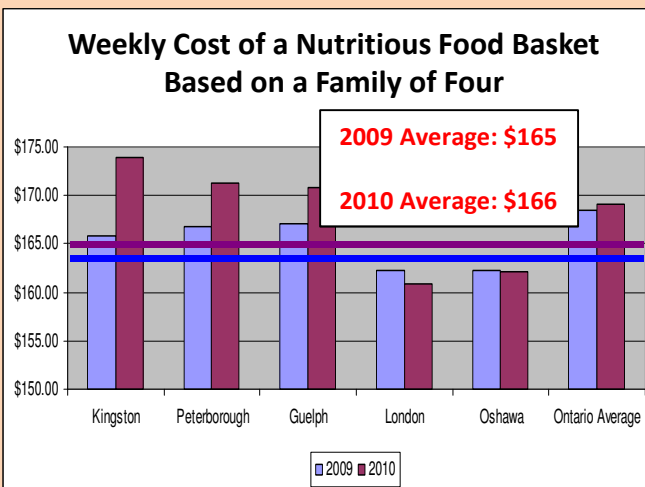
In 2011, KFL&A Health Unit had the highest ratio of physicians to residents compared to benchmark and Provincial averages.



In 2011, 58% of the Kingston population was obese or overweight, which was just higher than the benchmark and national averages. In 2009, the number of Kingston's municipal recreational program hours increased in comparison to previous years but was the lowest in comparison to the benchmark average.

Theme SO3: Food and Nutrition

In 2009 and 2010, Kingston had 7 community gardens. In 2010, the KFL&A Health Unit had the highest cost of a nutritious food basket.



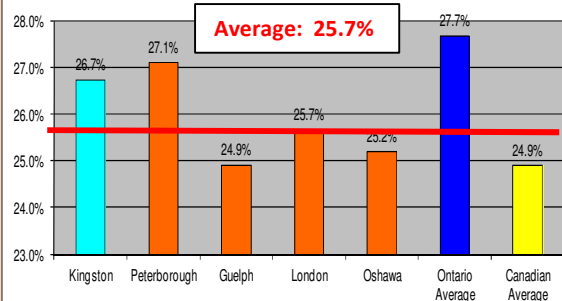
Theme SO4: Poverty and Homelessness

Kingston has the same percentage of households below the low income cut-off as the Province (11.1%), but is just above the benchmark average.



In 2006, 26.7% of the Kingston CMA population had households that spent 30% or more of their income on gross rent and on owner's major payment. The Kingston CMA is just higher than the benchmark average.

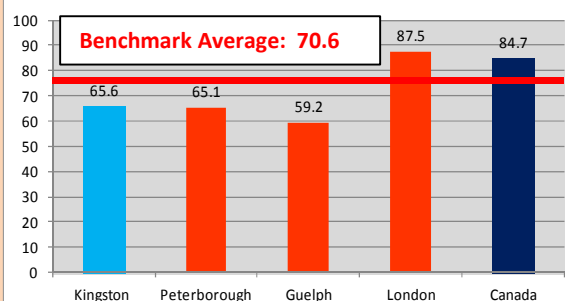
Percentage of Households in CMA Spending 30% or More of Income on Rent



Theme SO5: Comfort, Safety and Inclusion

In 2009, the Kingston CMA Crime Severity Index (CSI) and the Weighted Clearance Rates (crimes solved) were better than the benchmark averages.

Kingston CMA Total Crime Severity Index





Front and Back Cover Photos provided by City of Kingston

On June 15th, 2011, students from the Creative Arts FOCUS program at QECVI used the Springer Market Square as their canvas to sketch out *Sustainable Kingston*!