25% SHIFT LOCAL FOOD PETERBOROUGH

PART 1 Economic Impact

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Contents

FORWARD

The purpose of this study is to identify the economic impact, in terms of community wealth creation, that can be achieved by a shift of 25% of our local food expenditures from 5% to 30% in a 10-year time frame. Local food, for this study, is considered to be food sourced in the City and County of Peterborough. No attempt is being made to identify the *how* and the *cos*t of effecting the 25% shift.

This complete study comprises two parts:

Part 1 Economic Impact (this report.)

Part 2 Jobs and Livelihoods (to be completed).

Contributing Partners:

Farms At Work

Peterborough Economic Development/Kawartha Choice

Resilient Peterborough Council

Trent Centre for Community-Based Education

Transition Cavan Monaghan

Kawartha Loon Exchange

Peterborough Social Planning Council

Transition Town Peterborough (TTP)

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Transition Town Peterborough (TTP) is a volunteer, non-profit organization focused on reducing fossil fuel dependency while increasing local resilience and security of food, water, energy, culture and wellness. TTP is made possible by ordinary citizens working for positive change in whatever capacity they can to build new models of grassroots transformation while helping to bring existing groups and individuals together to work towards the common goal of resilience in the face of fragile systems vulnerable to economic, political and natural forces.

EXECUTIVE SUMMARY

Global food prices are following the global price of oil because of transportation costs and high oil-based inputs into industrial food production. Rising global population that increases the demand for food, and climate change that reduces food yields are also driving global food prices; but the causal relationship between the price of oil and the price of food is the most direct and, therefore, the most predictive indicator of the price insecurity in our food system.

The Price of Oil and the Price of Food

The major cause of rising oil prices is the decline of conventional oil production. As conventional oil supplies continue to decrease, the pressure to supply more and more unconventional oil from deep sea, shale (tight oil) and tar sands sources guarantees rising prices of all oil, both conventional and non-conventional. The declining EROEI (Energy Return on Energy Invested) of both conventional and non-conventional oil further locks in the trend towards much higher oil prices.

Extraction of unconventional oil also means much higher direct costs and greater environmental degradation.

Rising oil prices have a severe and negative impact on global economic growth, contributing directly to recession or depression, driving demand and oil prices down again in a cyclical pattern. Oil prices peaked at $147US a barrel just ahead of the global economic collapse leading to the Great Recession of 2008 /2009. The exact price of oil at any time depends on where we are on the economic cycle driven by the oil price.

Considering that up to 95% of food consumed in the Greater Peterborough Area is imported to the area, it seems prudent, for municipal planning purposes, to project a doubling of the price of a barrel of oil (accounting for inflation) within the ten year time frame of the 25% Shift, and to calculate at least a doubling of prices for our globally-sourced food.

It is not within the scope of this analysis to predict if locally produced food will become less expensive than globally sourced food in the ten-year time frame. However, such a crossover of pricing would seem feasible, providing a boost to local food production with no further financial incentive than the rising price of energy.

Value of Food Sector to the Local Economy

This study provides three checks of current food prices: global prices are tracked using the World Monthly Food Price Index provided by the United Nations Food and Agriculture Organization; the Provincial price trend utilizes Consumer Price Index (CPI) data; and the local basket of food items is tracked by the 25% Shift Local Food Peterborough Working Group. This Group will continue to track local food prices.

The projected total food market sector in the City and County of Peterborough (for both home and restaurant consumption) would increase from its base value of $455M in 2013, (based on currently available data) to approximately $988M by 2024. (Data based on the Ontario *Places to Grow Act* updated projections.)

Implementing a 25% shift to local food over the 10-year time frame to 2024 would value the local annual Food Market Sector at approximately $296M in the City and County of Peterborough, while also providing benefits of jobs and livelihoods, resulting in an economic impact at between approximately $406M to $491M by 2024. This is explained further in the study.

The 25% shift in local food likely offers the greatest job creation and greenhouse gas emissions reduction opportunity that exists over the next ten years for the City and County of Peterborough.

How this Document is Organized

Section A of Part One examines the effect of rising oil prices on food prices. Section B looks at world, provincial and local food costs and local household incomes. Section C calculates the economic impact of increasing local food production from 5% to 30%. Section D sets the stage for Part Two of the continuing study.

Completion of Part Two will require significant resources and a combination of survey work and mathematical model projections. Neither Part 1 nor Part 2 creates a plan with budgetary projections on the cost of implementing the 25% Shift. Needless to say, the required investment capital of both public and private funding, as well as local financial infrastructure to support local farmers and the building of local trading in food will be costly, in line with the opportunity of an annual economic impact from $406 Million to $491 Million.

INTRODUCTION

Food and Economic Localization

Transition initiatives around the world have focused on growing your own food or sourcing it locally in order to build personal and community resilience. Transition Town Peterborough was no exception with its first project initiative in 2008 called Streets for People, which focused on converting front lawns to food production. In 2011 Transition Town Peterborough hosted the first Purple Onion Festival (POF), a celebration of local food and culture. The success of this first festival was a leading indicator of a local food revolution well underway with the general public as well as local restaurants and many non-profit organizations and volunteer groups. Transition Town Peterborough's own consumer magazine *The Greenzine* summer edition was themed "Local Food and Culture" beginning in 2011, and many of the Transition Skills Forum's best attended workshops were and still are the topics for greater personal resilience around food, such as solar food drying, sprouting, wild edibles and permaculture.

Transition Town Peterborough encourages

1. greater personal and community resilience in food by means of strategies for economic localization, and
2. engagement of municipal governments in making the vital connection between economic security and the need to increase both the supply and demand for local food.

Along the path of economic localization, and after considerable research, Transition Town Peterborough introduced the **Kawartha Loon local currency** on a test market basis at the 2012 Purple Onion Festival. The market analysis conducted by a group of Trent University students rated the festival as highly successful with a high rate of acceptability for the local currency if introduced community wide.

The Kawartha Loon local currency was introduced community-wide at the 2013 Purple Onion Festival. Three months after introduction, the local currency was accepted at par to the Canadian dollar by over 75 locally owned businesses and farming enterprises. In June 2014 over 110 businesses accepted the local currency at par to the Canadian dollar. The local Peterborough Community Credit Union acts as the first central banking agent for the Kawartha Loon.

A Transition Town Peterborough marketing initiative for implementation of the 25% Shift in Peterborough is the **Kawartha Loon Exchange** (KLE). The KLE is the governing body for the local currency (the Kawartha Loon). The KLE will oversee an organized system of exchange between local producers, retailers and consumers, primarily for the life essential goods and services of food, water, energy, wellness and culture using the Kawartha Loon. This will increase the local flow of trade in a business area, build community wealth and ultimately create local jobs. More information regarding the KLE can be found on the Transition Town website at: http://transitiontownpeterborough.ca/index.php/projects/economic-localization/kawartha-loon-exchange.

These experiences led to the deeper understanding of the need for economic localization and the leading role of food in that localization strategy. **Economic localization is understood as in balance with traditional economics and focusing on local food and the other life essentials of water, energy, wellness and culture.**

It is these market segments, localized and monetized in our local currency, that will build community resilience in the face of climate change, resource depletion, rising oil prices, and global economic contraction. (This receives greater elaboration in TTP's 2013 document *Economic Localization: A Strategic Framework for the City and County of Peterborough* Version 2.0. available at http://www.transitiontownpeterborough.ca.)

The Need for an Economic Impact Analysis of the Food Sector

It became obvious that a strategy of a 25% shift to local food would need an economic impact analysis in terms of local wealth creation and jobs to spell out the opportunity, *before local municipalities and many businesses would rethink the business-as-usual practice of supporting all things global before local with both money and policy.*

A starting point is the fact that at least 95% of all calories consumed by Canadians come from over 2400 kilometers away. Food was a clear place to start. (It should be noted that similar economic impact analyses need to be undertaken for water, wellness, energy and culture - the other life essentials.)

A group of non-profit organizations (listed in the Forward) began the process of demonstrating the economic impact of shifting to local food supply and quickly titled it the *Economic Impact Analysis of 25% Shift Local Food Peterborough.*

As the project progressed, it became clear that sufficient data did not exist nor were funds available to create the mathematical model necessary for Part 2 which will predict the number and type of jobs that would be available with a 25% shift in local food. Therefore, the project was broken into two parts: Part 1 Economic Impact, and Part 2 Jobs and Livelihoods.

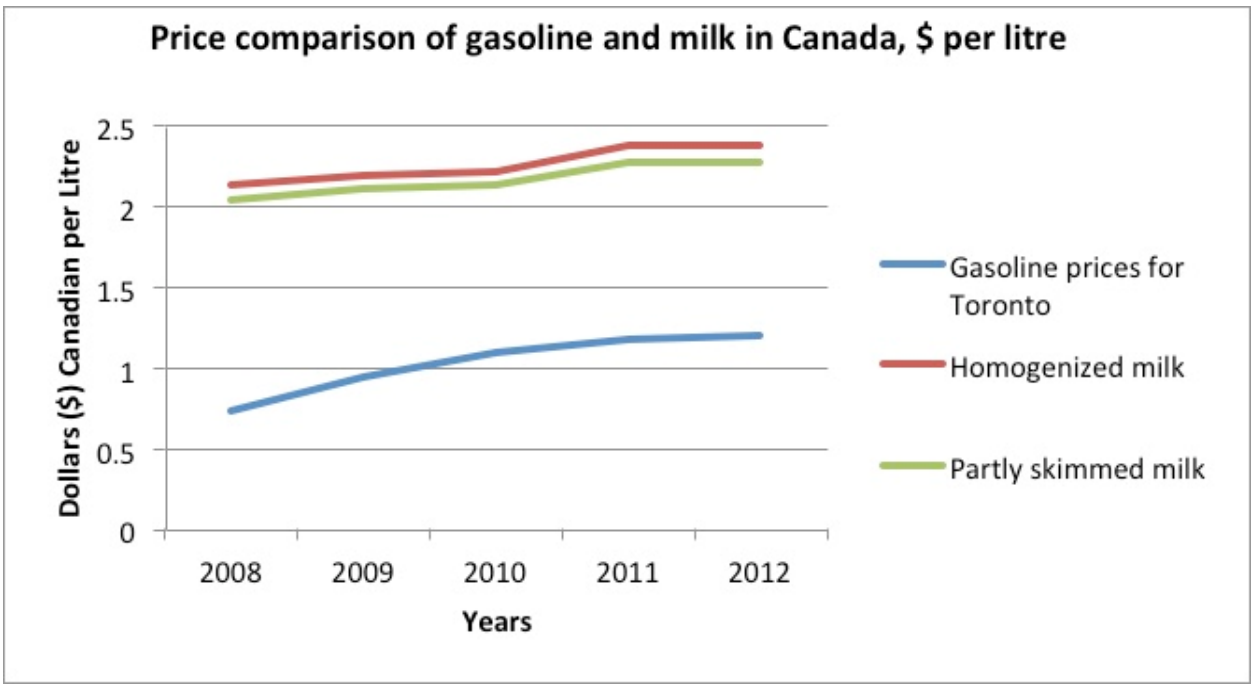
SECTION A: THE PRICE OF OIL AND THE COST OF FOOD

"Numerous steps are required to put food on the table, and many of these steps require energy and result in GHG emissions. Fuel is used to till land and sow crops; fertilizers and pesticides are manufactured and applied, food is harvested and shipped to processing plants, and electricity is used to wash and package food." (Statistics Canada, 2012).

Each step in the conventional food production process costs money, especially when it comes to transport. Now, with the price of gasoline rising, paying for transportation of goods is taking a greater toll on our wallets. Does the price of oil (from which gasoline is drawn) affect food prices? Is it the major cause of food price increases to most essentials such as milk, butter, flour, oil and so on? Could the cost of local food become less expensive than that imported from afar?

The goal of this section is to determine how much impact oil prices have on the amount we pay for food.

Currently, the distance traveled by food found in grocery stores is on average 1,500 miles or 2,400 kilometers from the place of production to plate (Pirog, 2001) A Waterloo study, conducted in 2005 has found a similar result: that 58 different food items travelled 4,497 km on average from farm to fork creating 51,709 tons of greenhouse gas emissions. It was found that all 58 food items could have been produced within the Waterloo region (Xureub, 2005).



A-1: Price Trends Gas and Milk Toronto 2008-2012. (Xureub, 2005)

Figure A-1 shows that the price of milk, both homogenized and partly skimmed follows a similar trend to price of gasoline in Toronto.

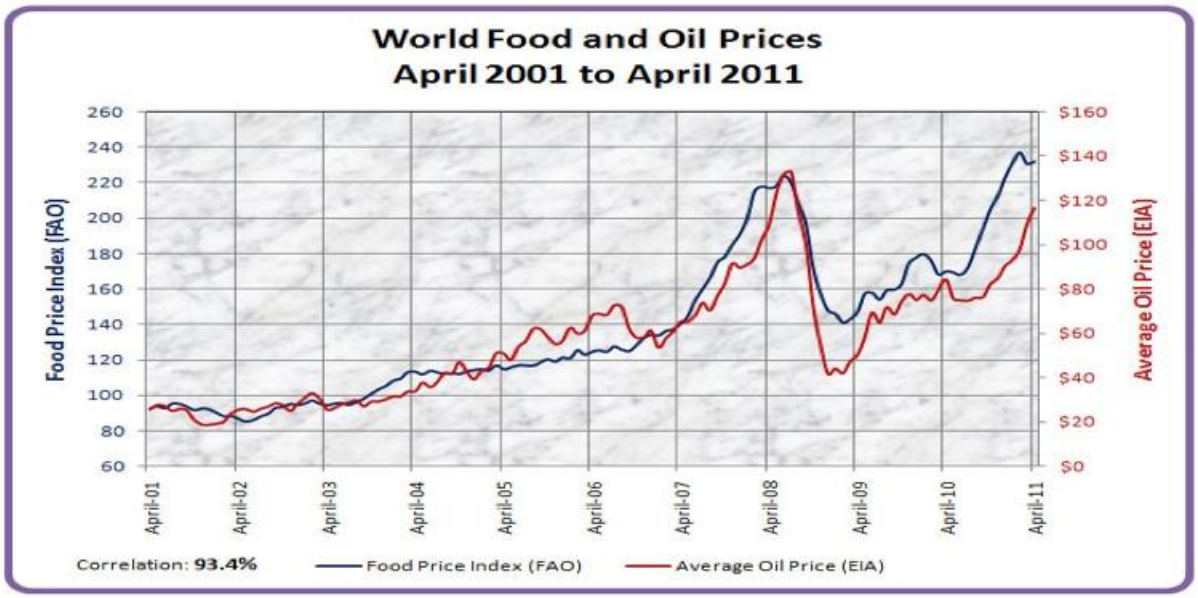


Figure A-2: 10 year Trend of World Food and Oil Prices (Food and Agriculture, United Nations, 2013).

Figure A-2 illustrates the tracking relationship of world food prices with oil prices from 2001 to 2011. The world food price graph is for food indices which are defined in the UN Report as a measure of international prices of food basket commodities, or a look at the average price of food within several groups of food items.

Not shown in Figure A- 2 is the most current food index taken in January 2013, which was 210. What is clearly illustrated is the strong correlation between the global price of food and the price of oil along with the spiking of both oil and food prices in April /May 2008 leading to the start of the Great Recession and the collapse of oil and food prices by the winter of 2009. Oil prices began to rise again in April 2009 and global food prices tracked the oil price trend but are not only at a significantly higher level but are now leading in anticipation of higher oil prices ahead.

These are significant trends effecting local food planning for the coming years. In reference to Jeremy Rifkin's analysis in 2013 “when oil hits $120 to $150 a barrel, the economy will shut down every time” and that we are in the second economic collapse period now. It seems that in late 2013, we were in a plateau phase with oil prices of $100 per barrel and the last world food index at 210 January 2013.

> When oil prices peaked at $147 US per barrel “all other prices went through the roof because everything is made out of or moved by fossil fuels: pesticides, fertilizers, construction materials, pharmaceutical products, transport heat and light.”
>
> Jeremy Rifkin*, The Third Industrial Revolution*

As well, in 2013 the United Nations reported that world population growth is expected to increase global food demand over the next decade by 14% while global supply, partially because of the effects of continued fossil fuel effects on climate, is likely to only increase by 2%.

This tightening oil supply/demand relationship is likely the cause of global food prices trending above and ahead of oil prices with higher peaks and lower valleys than oil. This means that in future there could be economic recession periods with much higher food prices than normal during such a period. In fact, this situation already exists in many economically depressed countries of the world in 2013.

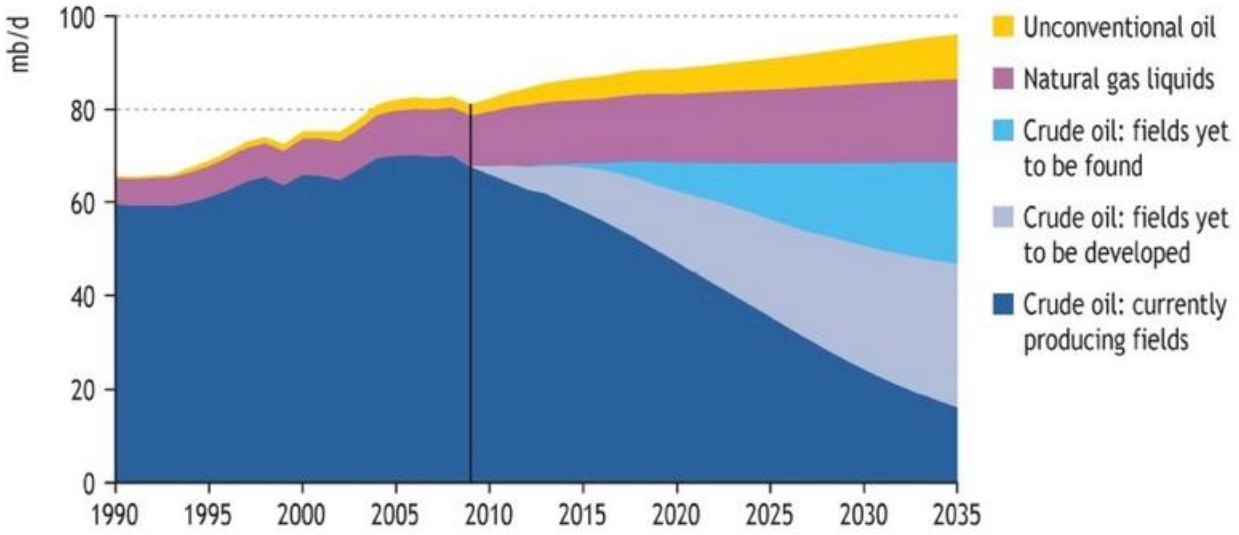


Figure A -3: Conventional Oil Declining Production (Liquid Fuels Production Forecast 1990-2035 and Equivalent Million Barrels of Oil per day International Energy Agency, World Energy Outlook, 2010).

Figure A-3 clearly illustrates the falling crude oil production from currently producing fields. It also shows the need to ramp up production of unconventional oil extraction as well as exploration for new oil.

The most significant cause of rising oil and food prices is the global decline in conventional, easily accessible oil resources. Global conventional oil production from producing fields has been in decline since 2008 as is evident in figure A-3.The annual rate of decline is from 3 to 5%. Non-conventional oil sources such as tar sands, deep sea and shale oil have been used to fill the demand gap; however, these sources are more difficult to extract and require much more energy to do so. The costs to extract new non-conventional oil are driving up prices of all types of oil. The crude oil yet to be found is highly likely to be found in the Arctic and be more unconventional than the current production-ready unconventional oil which is much more difficult and costly to extract with much greater environmental risk and much lower overall return on energy invested.

It is not the diminishing availability of oil or the lack of economic return on investment of big oil, or the lack of availability of investment capital or even the huge and growing environmental risk of continued exploration and transportation of oil that is bringing an end to the anthropogenic era of fossil fuels, but rather the declining return on energy of all types of fossil fuels including both conventional and unconventional oil. This Is

Energy Return on Energy Invested (EROEI) and is Illustrated below for various sources of energy.

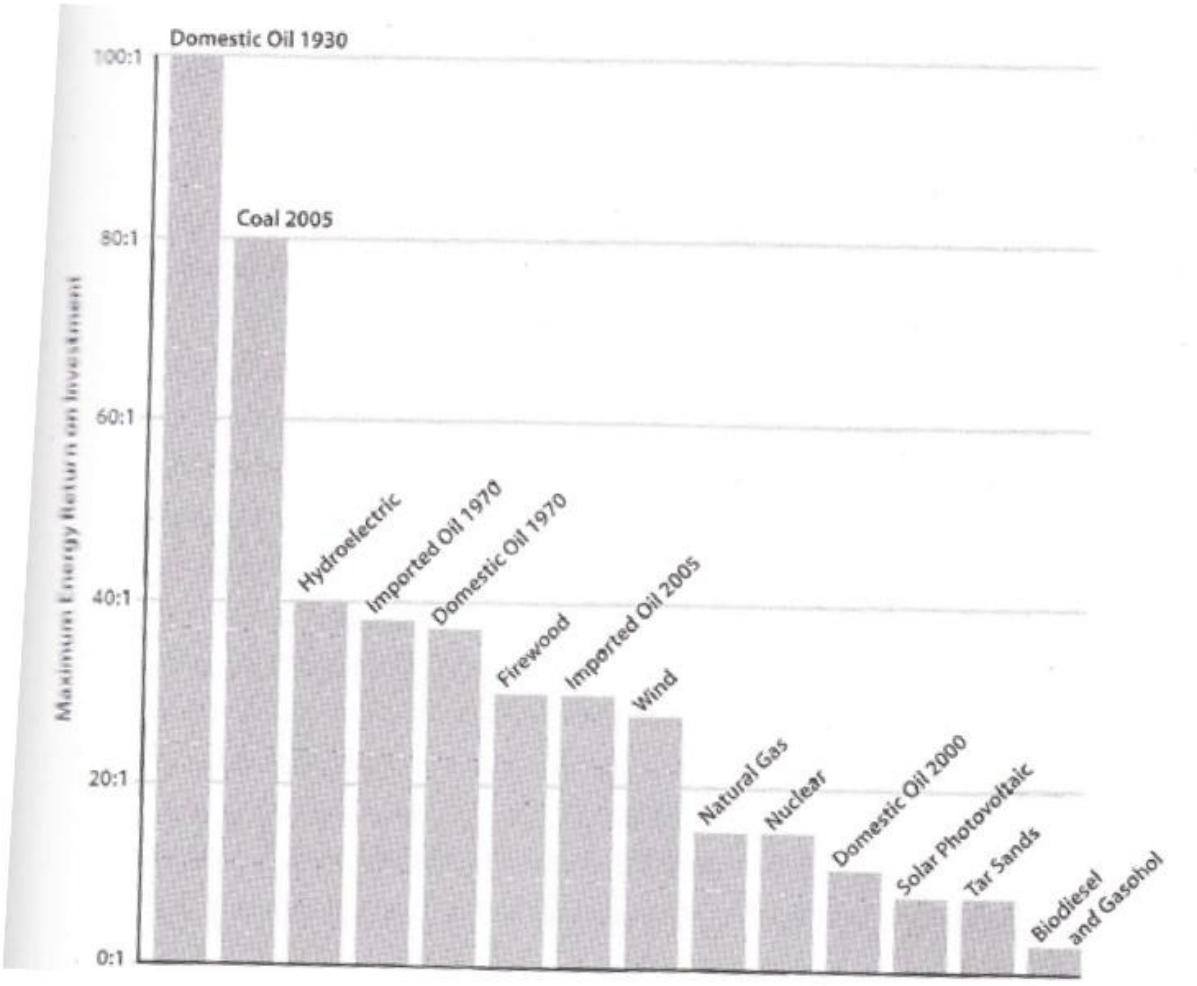


Figure A- 4: Energy Return On Energy Invested (EROEI) (R. Heinberg, *Snake Oil,* 2013)

As shown in **Figure A-4**, domestic oil was extracted at a rate of 100 barrels for every 1 used in the 1930's. In 2013 conventional oil consumed in North American had an average EROEI of about 30 to 1 (not shown in Chart; reported by Richard Heinberg in *Snake Oil*). Tar Sands unconventional oil hovers around 5 or 6 to 1 and is in decline. Coal at an EROEI of 80 to I in 2005 remains a viable source of high return on energy but an environmental disaster.

Global oil demand in 2013 is about 85 million barrels of oil per day and increasing. Conventional oil production is unable to keep up to demand requiring the substitution of more expensive and much lower EROEI oil from unconventional sources. **EROEI is perhaps the most important measure of how we can maintain our complex global civilization** (including the importation of 95 % of our food into Peterborough.)

> "We ignore EROEI at our peril .... EROEI is crucial in consideration of the potential benefits of tar sands, oil shale and biofuels because each of these fuel sources has an EROEI of 5:1 or less....the relentless decline in EROEI of oil is one of the biggest under reported economic stories of our time." – Richard Heinberg, *Snake Oil.*

White's Law states that the upper level of economic development and output is governed by the amount of available excess energy. EROEI's of less than 5 to1 are judged to be marginally effective in sustaining our complex society. (Lesley White, The Evolution of Culture*: The Development Of Civilization To The Fall Of Rome,* 1959)

In summary, the global production of conventional oil is in steady decline. The cost and the energy invested to extract non-conventional oil continue to rise. The biggest suppliers of conventional oil namely Russia, Venezuela, and Saudi Arabia remain politically problematic for high consuming western nations as well as China. The bottom line on global oil prices is that they will continue to rise over the next ten years. The only question is to what extent.

Forecasting the Price of Oil

It is difficult to forecast the price of oil over the next ten years for multiple reasons, the most important of which are summarized as:

- declining production of conventional oil with the highest EROEI.
- rising cost of exploration and extraction of unconventional oil.
- continuing decline of EROEI for both conventional and unconventional oil.
- timing of the forecasting period with the global economic cycle driven by oil itself.

Additional factors that make forecasting price even more difficult include the:

- Middle East and other oil producing nations' political stability
- continued government subsidies to big oil
- strength of the environmental movement to put in place regional carbon taxes or cap and trade systems to reduce oil consumption and carbon emissions
- strength of cities/provinces /states/regions /nations investment in conservation and new broadly based energy efficiency systems
- inflation rate over the next 10 years driven globally primarily by the fiscal and monetary policy of the US Federal Government and the US Federal Reserve, and the supply/demand relationship of oil.

To reinforce the forecasting difficulty for the price of oil, we turn to the *actual* prices of oil over the last ten years and the *forecasts* of the US Energy Information Agency (EIA) which show that on Sept 26,2003 the Cushing West Texas Intermediate (WTI) price of a barrel of oil was $28.21 US. WTI oil is also used for a benchmark for pricing oil. On that day, the EIA forecast was for oil to cost as much as $32.80 US per barrel in 2010 and nearly $35 US a barrel by 2025. As they say, the rest is history. Cushing WTI spiked to $147 US per barrel in 2008 leading to the Great Recession of 2008 /2009 and on September 26, 2013 exactly 10 years from the same date in 2003 the Cushing WTI spot price was $103.10, reflecting a **365% increase in price over the 10 years.**

The trend line of crude oil prices is decidedly upward. The price of oil from the base of an average price of over $100 US a barrel in 2013 can easily double by 2024. It is logical then to assume, with the strong correlation of oil prices to global food prices, that they too will at least double in the same time frame.

SECTION B: TRACKING FOOD PRICES: THE CASE FOR CONCERN

The prices of many basic items always appear to fluctuate. But the era of 10¢ a Liter gasoline is in a bygone time. As well, food was much less expensive than it is today both in terms of absolute dollars and as percentage of disposable income. The previous section examined the impact of depleting conventional oil resources on the cost of food, while this section looks at how much food prices have increased in the past, and if

future rises in food prices could be a cause for much greater concern for Peterborough residents. 2013 is used as the benchmark in tracking.

Global Food Price Trend 1990 to 2012

Inflations adds to rising food prices. Inflation is measured by calculating the increased costs of a fixed basket of purchases such as food, shelter, furniture, clothing, transportation, and recreation (Ontario Ministry of Finance, 2013). Consumer Price Index (CPI) is used to view the changes in the consumer purchase basket. The CPI inflation in 2012 for Toronto Ontario was 1.4% (Ontario Ministry of Finance, 2013). Inflation can be caused by many factors such as changing oil availability, climate patterns such as drought or severe storms that damage crops. Changes in CPI and inflation shed light on whether prices of basic necessities have been changing.

The overall trend of the CPI for the Food and Agriculture Organization (FAO) food basket, which looks at the monthly change of international food prices for cereals, oils/fats, dairy, meats and sugar, is seen in **Figure B-1.** It shows a general pattern of growth over the years. The data extend over several years and thus can provide a good overview of how the costs have been changing.

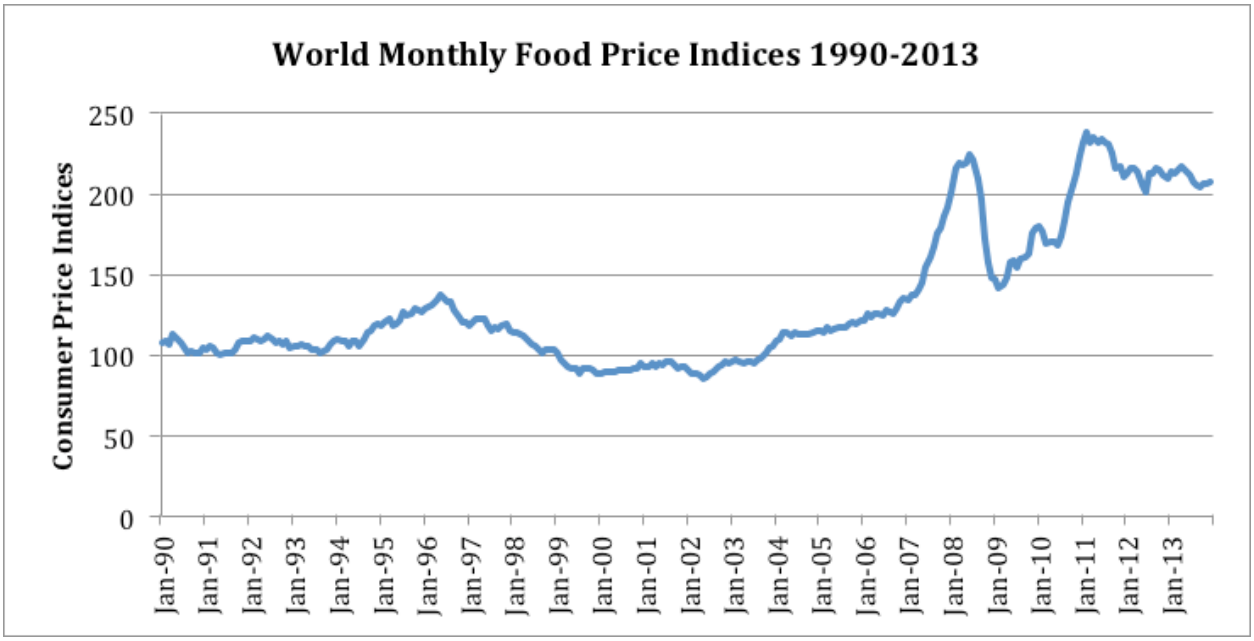


Figure B-1: World Monthly Food Price Indices 1990-2013. (Food and Agriculture Organization of the United Nations, 2014)

Provincial Food Price Trend for Ontario 1990-2013

Figure B-2, below, shows the Consumer Price Index (CPI) for food in Ontario. The baseline against which other values will be compared is in 2002, which has a CPI of 100. In each month since 1990 to 2013 the consumer price index for food in the province has increased steadily.

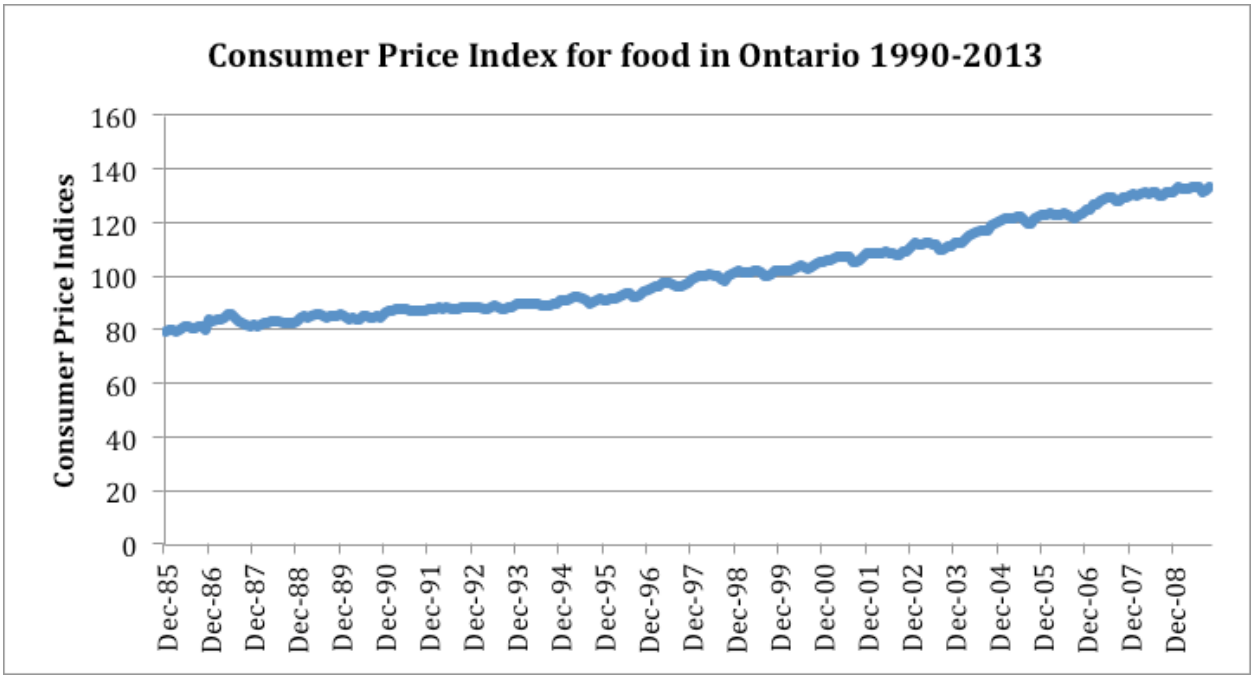


Figure B-2: Ontario monthly food CPI average.(Statistics Canada, Table 326-0020, 2014).

Local Food Price Trend Peterborough 2013

Below are the prices of a basket of food items taken from No Frills Peterborough *31* May 2013. This price check will be made annually to establish a base line of local prices.

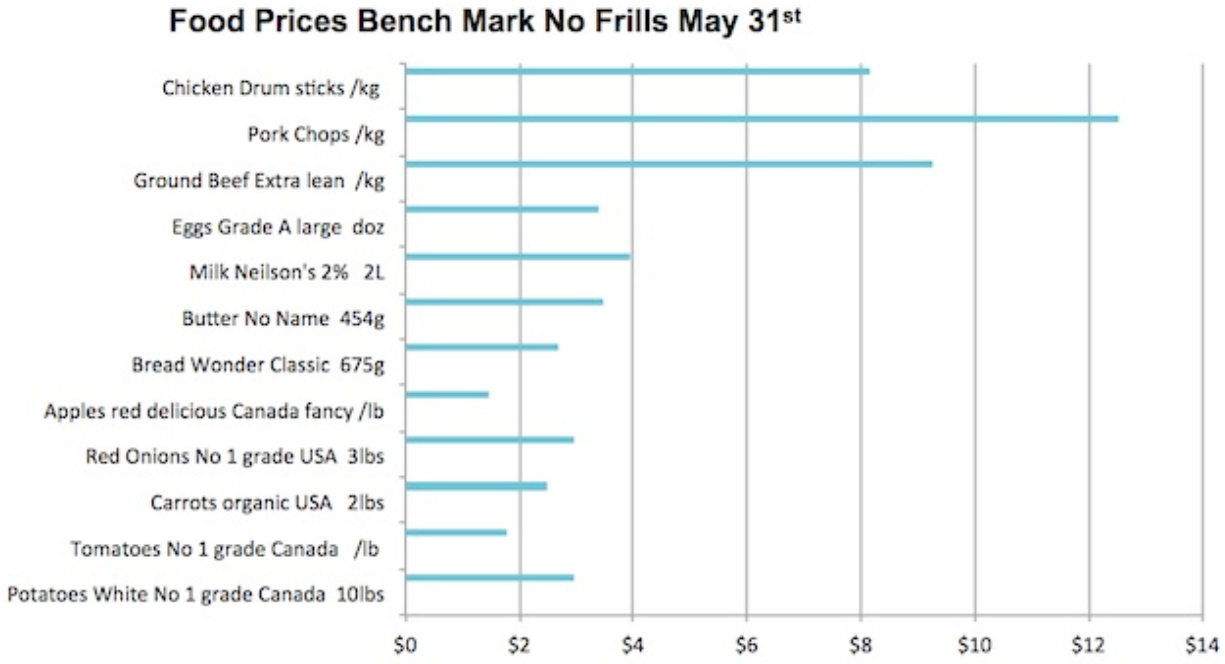


Figure B-3: May 31، 2013 benchmark prices of selected items at No Frills Peterborough. Final price $55.14. (Market Survey 25% Shift 31 May 2013).

SECTION C: ECONOMIC IMPACT OF A 25% SHIFT TO LOCAL FOOD

The amount of money spent on food and energy changes over time. A gradual rise in prices makes it manageable for most consumers to adjust. However, the balance between increased income and expenditures for food and gasoline is changing quickly and is particularly troublesome when combined with diminishing job opportunities and declining median household income.

Lower income families are suffering from nutrition shortages at an increasing rate and those at higher incomes have to spend even more money on good quality nutritional food. According to Statistics Canada, low income is considered when a person living alone has income less than $19,460 per year and a family of four makes less than $ 38,920 per year (Source: Statistics Canada, 2013).

An analysis of the average household incomes in the city shows that around 13,991 are low-income households of various types. If oil and food prices increase as predicted,

and household incomes stagnate in the next 10 years these households will face increasing pressure to support their lifestyles, and there could be changes to the social and economic stability of the community.

Profile of Peterborough Households and Incomes

Before we proceed with the economic Impact analysis of a 25% shift to local food in Peterborough, we offer a brief profile of citizens and household income.

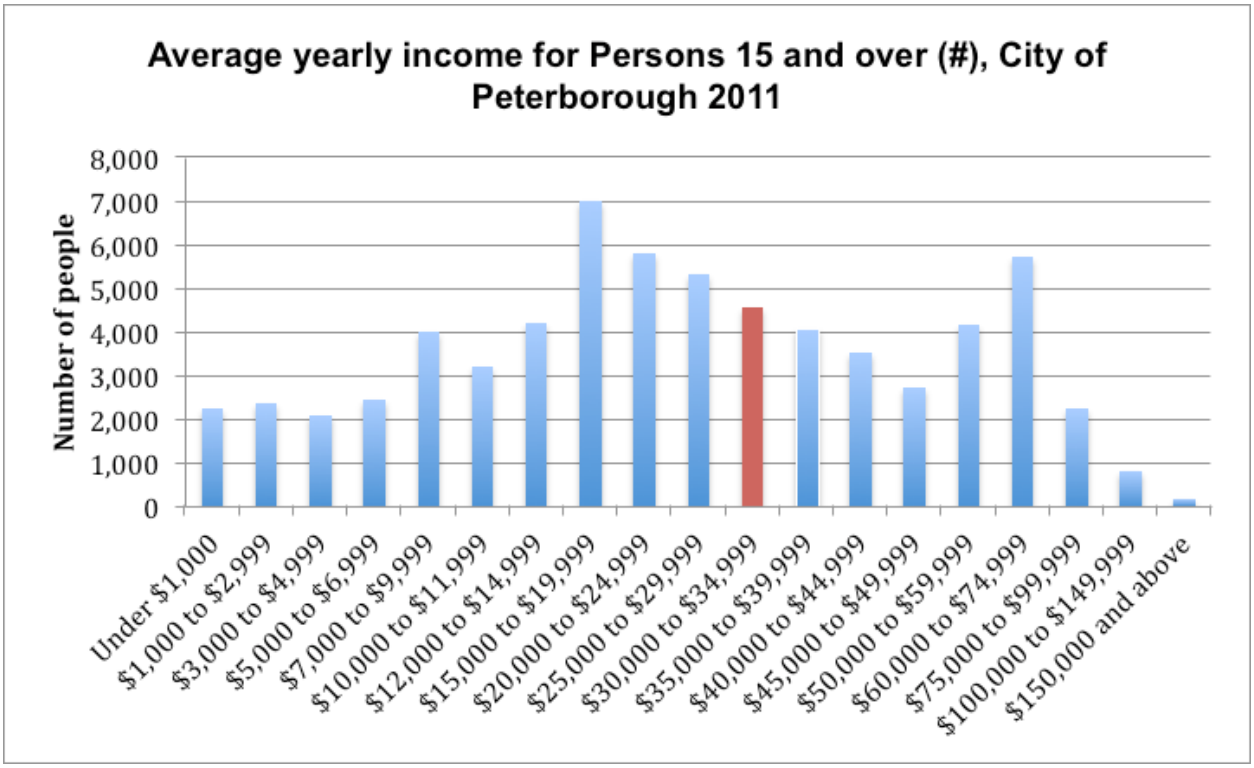


Figure C-1: Peterborough Average Incomes 2011 (GPAEDC, 2012 *City of Kawartha Lakes and The Greater Peterborough Area: Agricultural Economic Impact and Development Study*.)

The above Figure shows 2011 data for individuals over 15 years of age. This is not the same as per capita income; however, for some comparison the Ontario Household Income per capita of $33,962 in 2014 is shown in red. (Ontario Ministry of Finance).

Data below (**Figure C-2**) from 2006 demonstrate that the median income in Peterborough City in 2006 was 20% below that of Ontario and 10% below that of Canada as a whole. This median income information is simply used in this study to establish these relationships.

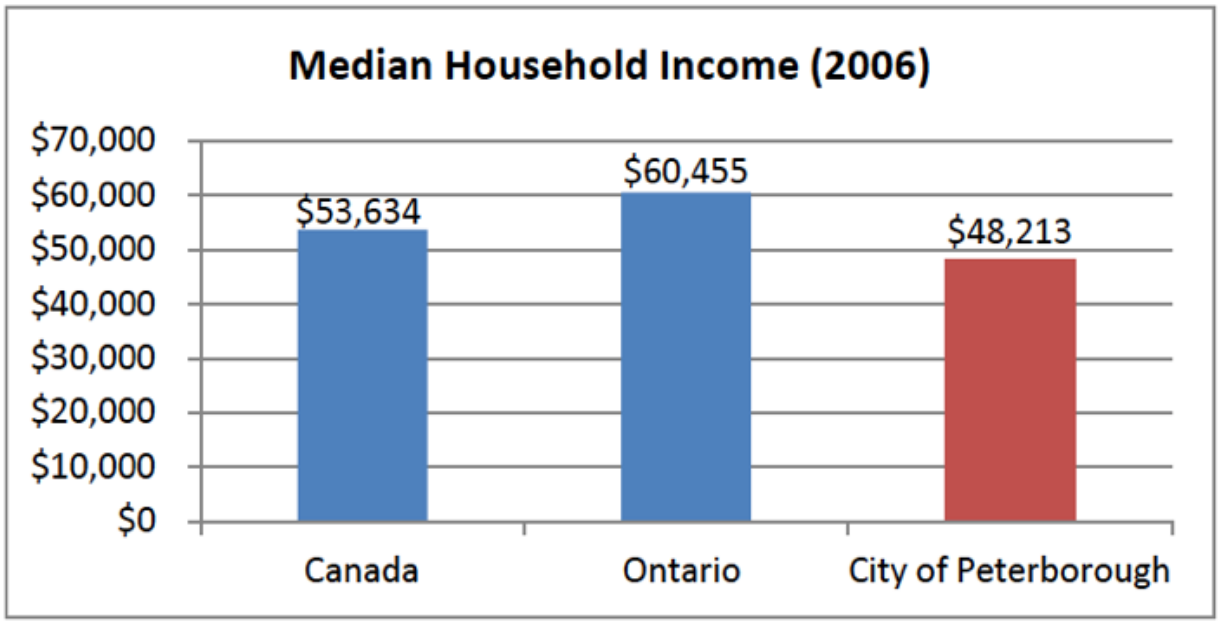


Figure C-2: City of Peterborough, *Residential Monitoring Report 2011.*

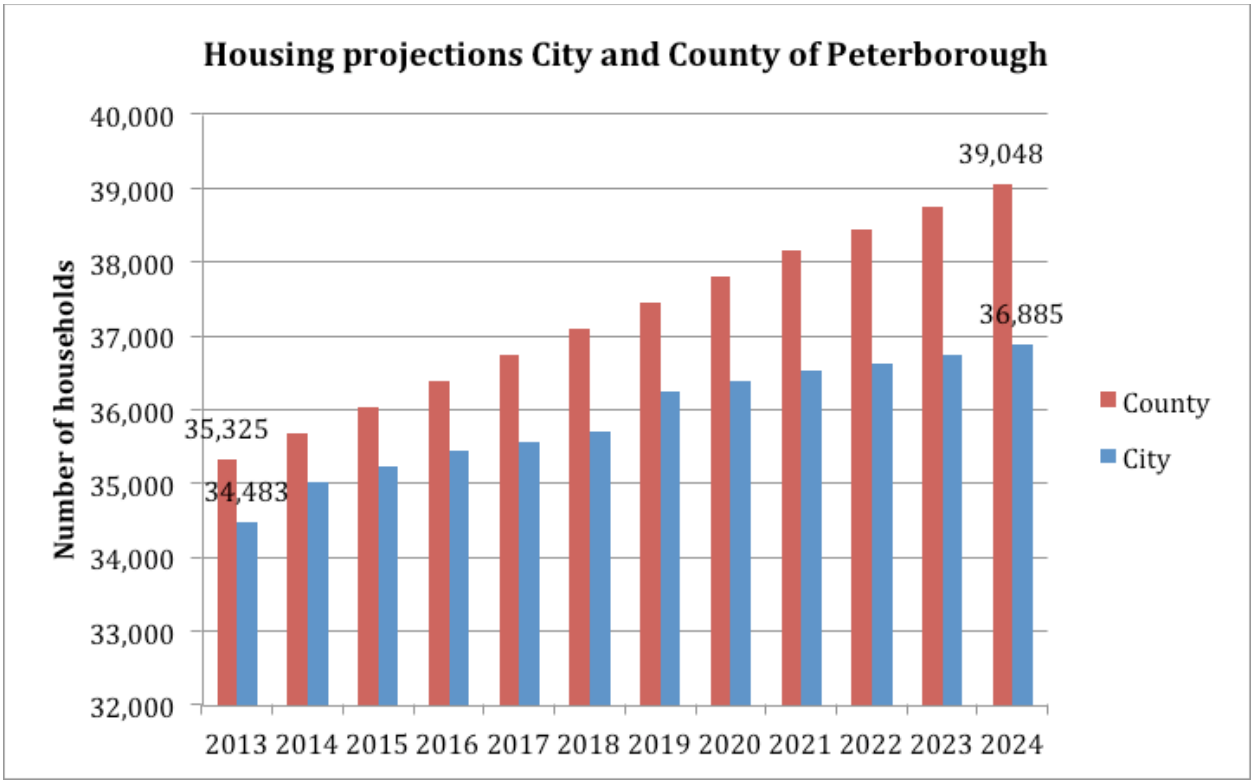


Figure C-3: **Housing projections for the City and County of** Peterborough (Ontario *Places to Grow* extrapolation) County projections based on City assumed growth and City data, based on *Places to Grow* projections 2013-2024.

The total number of households in the County of Peterborough (excluding the City of Peterborough) in 2013 was 35,325 (as reported by the County of Peterborough). In the City of Peterborough, reported total number of households at 33,435 in 2012 (Statistics Canada, Census Profile, 2012) was extrapolated to 34,483 for 2013.

For both City and County, the total household count was 69,808 in 2013, and the projected total number of households in the City and County is expected to be approximately 75,934 households through 2024 (based on the extrapolation of Provincial *Places to Grow* data, found in the Appendix.) For purposes of this study, 2013 households are *rounded* to 70,000, and 2024 households are projected to be 76,000

Household Income and Food Prices

The amount of money spent on food monthly for a family of four people is about $702, a family of three is $524 +/- $24, a family of two is $407 +/- $39, and a single person spends approximately $199 +/- $34. The following tablet shows this clearly. “The average household spends about 35% of its income on basic needs - food, shelter and clothing…a family is considered “poor” if they spend 55% or more of their household income on these items – a recipe for hunger” (PCCHU, *Limited Incomes.2012.)*

Monthly Income (after tax)/Costs	Single Man (Ontario Works)	Single Man (Ontario Disability Support Program)	Single Woman age: over 70 (Old Age Security/ Guaranteed Income Security)	Single Mother Family of 3 (Ontario Works)	Family of 4 (Minimum Wage)	Family of 4 (Median Income)
Monthly Income, including Benefits & Credits	$642	$1,115	$1,326	$1,855	$2,639	$6,360
Estimated Shelter Cost	$639	$774	$774	$915	$1,101	$1,397
Cost of a Nutritious Diet	$264	$264	$196	$599	$790	$790
What's Left?	**-$261**	**$77**	**$356**	**$341**	**$746**	**$4,173**
% Income Required for Shelter	100%	69%	58%	49%	42%	22%
% Income Required for Nutritious Food	41%	24%	15%	32%	30%	12%

REMEMBER: People still need to pay for utilities, phone, transportation, cleaning supplies, personal care items, clothing, gifts, entertainment, internet, school essentials, medical and dental costs, and other purchases.

Figure C-4: Peterborough County City Health Unit Nutritious Basket Calculator, 2012

The question remains whether the annual income gained by households in Peterborough will keep pace with rising prices of food and energy.

Currently, 10% of households are food insecure, which compromises the quality of food and means there are fewer options for healthy food. Currently, 2.5% of the population has severe problems with this, often including children.

Within the next few years, the population of the City will increase. A greater number of households will result in the need to build more houses and provide employment to the new residents. This growth would benefit the 25% *Shift* in local food production by providing local farmers with greater employment.

However, the food system must first be improved since currently there is more demand for local food than there is supply. If the *25% Shift* were to begin now, then in 10 years, the residents of Peterborough will have a greater supply of local food and all the benefits associated with the new system such as greater amount of disposable income, local stable job opportunities and a healthier community. In short, now is the time to convert from a system based on long distance travel of food to local purchases. The decisions made now with regard to food, will shape the future of food in Peterborough.

Previous analysis regarding food expenditures suggest that the percentage of income spent on food is determined by earned income and the cost of food. However, the amount of money spent on food varies if someone shops at a store or goes to a restaurant. The importance of knowing how much money goes to either enterprise can determine the impact the 25% shift to local food would have on resident, store and restaurant incomes.

Table 1

Percentage of Total Weekly Food Expenditure per Household

	1982	1986	1992	1996	2001
			%		
Total food	**100**	**100**	**100**	**100**	**100**
Food purchased from restaurants	25	27	30	28	30
Food purchased from stores	75	73	70	72	70

Table 2

Average Weekly Expenditure per Household (constant dollars)

	1982	1986	1992	1996	2001
			constant dollars		
Total food	**120**	**128**	**130**	**124**	**124**
Food purchased from restaurants	35	39	39	34	38
Food purchased from stores	85	89	90	90	86

Figure C-5: Percentage of total weekly food expenditure per household, Canada average, 1982-2001 (Statistics Canada, Catalogue number: 62-554-XIE)

This split between dollars spent in restaurants versus stores also exposes the issue of where the food consumed in retirement homes and hospitals is counted in aggregate as a very important food sector in Peterborough. These figures are presented here for information only and are not utilized in the calculation of the gross economic impact of a 25% shift to local food.

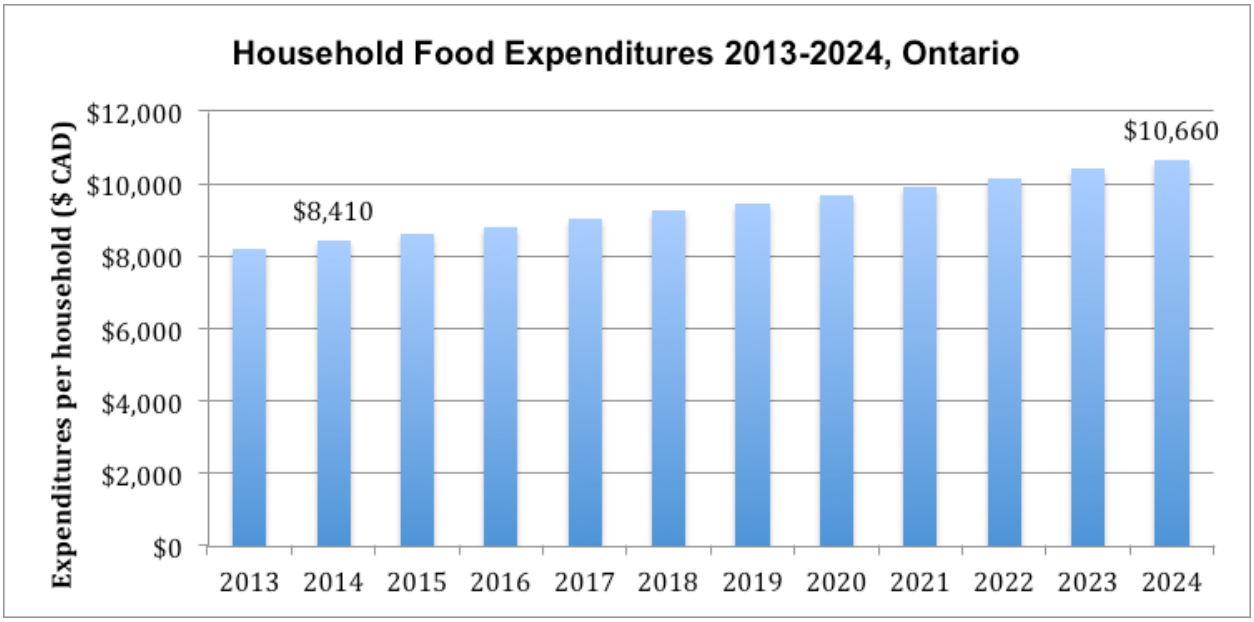


Figure C-6: Annual Food expenditures for Ontario 2013-2024 per household based on an assumed 2.4% a year increase (Statistics Canada, Table 203-0028 and Industry Canada, 2011).

In **C-6** above, the base of food expenditures for Ontario in 2013 is $8125 per household. This becomes the base year for this study's analysis of rising food prices. Figure C-6 shows Statistics Canada's projected 31% rise in the price of household food expenditures to 2024; whereas, the 25% Shift Local Food study analysis utilizes a doubling of household food expenditures in Ontario- *due to the impact of oil pricing* (Section A) - from $8,125 in 2013 to $16,250 in 2024.

Economic Impact Projections

It is important to note three assumptions made in this study:

Assumption 1: Since data for consumer household expenditure on *local* food (direct from producers e.g. farm gate, CSAs, farmers markets etc.) and total purchases of local food from supermarkets is not yet clearly determined, for its purposes, this study assumes local expenditures at a conservative 5%.

Assumption 2: Household income in Peterborough City is 20% less than Ontario, (Figure C-2). Since data for annual household food expenditure for Peterborough City

and County (2013) are not available, this Economic Impact Calculation conservatively uses the 20% lower figure for *both* the City and County for the 10 year time-frame.

For the base year of 2013, Ontario's average household expenditure for all food is approximately $8125. At 20% less, Peterborough City and County base in 2013 is approximately $6500. (This includes store and restaurant expenditures.)

Assumption 3: As forecast in this study, average household food costs may double in inflated dollars over the ten year time-frame from the base of $6500 in 2013 to $13,000 in 2024.

These assumptions, applied to the number of households in 2013 of approximately 70,000 and 76,000 in 2024 (Figure C-3) yield total and local value of the Food Sector in Peterborough City and County as follows:

Total Local and Local Value of the Food Sector Peterborough City and County:

- **2013**: Total market value **$455 Million** – of which 5% or **$23M is local** (based on 70,000 households and average household expenditures of approximately $6500)
- **2024:** total food market value **$988 Million (**based on 76,000 households and average household expenditures on food by 2024 of approximately $13,000.)
- a 25% shift to local food over 10 years creates a local food market of **$296 Million** by 2024 (30% of $988M.)

This analysis uses a high-level, aggregate data approach (as opposed to a build-up of on-the-ground local data from farms and businesses) to identify the potential local food market that would result from a 25% shift to local food.

In fact, not only is most of this food currently (estimated at 95%) imported to the City and County of Peterborough; some of it is purchased from stores outside the area.

Similar studies on the economic impact of the Food Sector on local communities have often used analysis of food sold through local food stores, supermarkets and farmers' markets. This approach is both time-consuming and costly from a data collection perspective, and generally reveals data with more gaps and greater approximations than the higher level, aggregate approach.

The local food market supports many more local farmers and businesses than the global imported food market; so the economic impact of localizing 25% more of our food supply is much greater than the actual dollars indicated. Research data provided in

Transition Town's *Strategic Framework for the Economic Localization of the City and County of Peterborough,* relating to **the Economic Multiplier Effect,** suggest that locally-owned businesses increase the economic impact in the community from 37% to 66%. So the Economic Impact of a 30% Local Food market in the City and County of Peterborough of approximately $296 Million would range from approximately $406 Million to $491 Million. (See table below.)

SUMMARY OF THE ECONOMIC IMPACT OF A 25% SHIFT TO LOCAL FOOD		
	2013	**2024**
Local Food	$23M	$296M
Total Food	$455M	$988M
Economic Multiplier Effect	Low at 37%: $31M High at 66%: $38M	Low at 37%: $406M High at 66%: $491M

SECTION D: PRELUDE TO PART 2 OF THIS STUDY: IDENTIFICATION OF THE NUMBER OF JOBS GENERATED BY A 25% SHIFT TO LOCAL FOOD IN 10 YEARS.

The most pressing problem currently facing farmers is the lack of income, more than half, 52% of farmers in Ontario are losing money from their farming enterprises (Peterborough Social Planning Council, 2011). In 1950, farmers gained 41cents of each dollar that consumers spent on food, in 1980, the figure dropped to 31 cents and in 2013 farmers gained less than 20 cents, making it difficult to manage (Canadian Centre for Community Renewal, 2013).

Despite this, "over 752,000 jobs in Ontario alone rely on a solid farm sector" but are as unstable as the actual farming jobs considering that in 2001, the average gross farm receipt per acre was $251, which varied from "$450 in Asphodel-Norwood to a low of less than $50 per acre in the most northerly parts of the region" (GPAEDC, *City of Kawartha Lakes and The Greater Peterborough Area: Agricultural Economic Impact and Development Study.* 2006).

The Economic Multiplier Effect

happens when money spent in local businesses or on local food remains in an area and continues to benefit the community over time. This way money remains in the community and grows.

The reasons for the lack of farm income are many: **(**Peterborough Social Planning Council, *The Future of Peterborough Food & Farming: A Call for Reflection & Discussion.*2011)

- rising oil prices for transportation and other farm inputs

- increased regulations
- consumers preference to purchase less expensive food leading to falling percentage of income spent on food
- the direct connection between farmers and consumers is limited
- most of the money spent on food by consumers goes to processors and distributors
- the majority of food in Ontario is exported rather than used locally leading to a growing need for imports.
- local businesses are under-serviced for the amount of demand received.
- urban sprawl is destroying a great deal of good productive farmland near cities.

The 25% shift to local food aims to encourage growth in currently under serviced enterprises such as local, organic and sustainable producers, small and medium sized businesses with economic and future employment opportunities. This is done by setting in place a movement to encourage residents to buy locally-produced food to benefit farmers and local businesses, which then would re-invest in the community, creating a loop of local economic development.

Employment and the 25% Shift Local Food

The types of jobs that would be created in the food sector are more varied than working the land as a farmer. There is the potential to include more local food retailers - merchants selling local products such as hemp or wool clothing material etc .Overall, the unemployment rate and average low income of the City could be changed, more youth would be able to remain in the City and participate in the future well-being and development of the community.

A potential solution to the issue of degrading community employment and income levels is to incorporate a Living Wage in the City of Peterborough; this has been proposed by Peterborough Social Planning Council which defined a living wage as “the minimum hourly wage necessary for each of two workers in a family of four to meet basic needs and to participate in the civic/social life of their community.” This means that this ‘reference family’, with both parents working full time, all year, with no additional

income, should be able to afford a specified quality or quantity of housing, food, utilities, transport, health care, and recreation" (Peterborough Social Planning Council, 2013).

Moreover, "the food produced, distributed and sold within a region can play a major role in how well the dietary needs of the population are met. Communities that have ready access to a sustainable supply of healthy, locally grown and produced foods are less vulnerable to external factors that can affect the nutritional quality and/or quantity of foods available. Municipal government and municipal policy have multiple levers to shift the food system" (Peterborough Social Planning Council, 2011).

The ideas of a local currency (such as the Kawartha Loon) and a living wage are gaining resonance in academic circles exploring solutions for rising income inequality and structural poverty in a contracting economy such as we now have in the Greater Peterborough Area.

Food Sector Impact on Jobs

"According to the province, [total] food production, manufacturing and distribution contribute $34 billion to the economy on an annual basis and support 700,000 Ontario jobs." CBC News, Retrieved July 9, 2014 from http://www.cbc.ca/news/canada/windsor/ontario-s-wynne-in-a-local-food-fight-with-ottawa-1.1347188

There are many methods that could be employed to help Peterborough City and County achieve greater economic health which would help the region to thrive, allowing for greater wealth, prosperity and environmental wellbeing. Note: Currently, there is on-going survey data required which will be continually added to this report and future parts of this project.

Case Studies and Related Information from Other Jurisdictions

The 3 following case studies show that the *25% Shift Local Food* is part of a global food movement, that the idea works and that it has proven to be a success elsewhere:

- Totnes UK http://www.transitiontowntotnes.org
- Colorado http://localfoodshift.com/
- Iowa http://www.leopold.iastate.edu/

Other important resources:

- http://www.transitiontownpeterborough.ca/
- http://www.kawarthachoice.com/

- http://wdb.ca/
- http://farmsatwork.wordpress.com/
- http://www.nc10percent.com
- http://www.pspc.on.ca/

SOURCES USED FOR THIS DOCUMENT

Agriculture and Agri-Food Canada (2008). Farmers Markets Canada. *3.09 Billion:This was the economic impact of farmer's markets in Canada*. http://www.farmersmarketscanada.ca/Upload/files/FMC%20FINAL%20Brochure%202009-ENG.pdf

Aleklett, K., and Campbell, C. (2003) The Peak and Decline of World Oil and Gas Production. *Minerals and Energy 18 (5-20)*

Ayotte, P., Post, C., Merriam, D B., Wink, C., Charters, D., Martyn, J., and Buott, C.(2007). *Roots of Poverty.* Obtained May 15th 2013, from: http://www.pspc.on.ca/pdf/roots%20of%20poverty.pdf

Bank of Canada. *Inflation Calculator.* http://www.bankofcanada.ca/rates/related/inflation-calculator/. June 10th 2013.

Brown, M.E., Tondel, F., Essam, T., Thorne, J.A., Mann, B.F., Leonard, K.,

Campbell, C.J. (2002) Petroleum and People. *Population and the Environment 24 (2)*

Canadian Centre for Community Renewal (2013). *Food.* Accessed June 25th 2013 from: http://communityrenewal.ca/innovations-food

Conference Board of Canada, *Cultivating Opportunities: Canada's Growing Appetite for Local Food,* August 2013

County of Peterborough (2014) *County of Peterborough 2013 Assessment Information.* Accessed December 28th 2014 from: http://cms.county.peterborough.on.ca/assets/uploads/documents/2013_11_22_2013_Household_Counts.pdf)

Greater Peterborough Area Economic Development Corporation (2006). *City of Kawartha Lakes and The Greater Peterborough Area: Agricultural Economic Impact and Development Study.* http://gpaedc.on.ca/pdf/locate/AgImpactStudy.pdf and http://peterboroughcanada.com/get-to-know-us/our-community-all-heart/city-of-peterborough/city-of-peterborough-facts/)

Holmes, Karen (2011). Food Down the Road. *Meeting the Challenges of Local Food.* Obtained May 28th 2013 from: http://fooddowntheroad.ca/node/17

Industry Canada (2011). Office of Consumer Affairs: Chapter 9 Consumer Spending. Accessed January 20th 2014 from: Industry Canada, 2011) http://www.ic.gc.ca/eic/site/oca-bc.nsf/eng/ca02117.html#a95 for growth % forecast

Involved in Sustaining Agriculture (CISA). Double the amount of local food in our diets. Community http://www.buylocalfood.org/about/25-percent/ Retrieved July 9, 2014.

Metcalf Foundation (2008) *Food Connects Us All: Sustainable Local Food in Southern Ontario.* http://metcalffoundation.com/wp-content/uploads/2011/05/food-connects-us-all.pdf. Accessed June 25th 2013.

Natural Resources Canada (NRCAN), 2010. Long Term Outlook: Crude Oil Prices to 2030. http://www.nrcan.gc.ca/energy/publications/sources/crude/issues-prices/1329

Ontario Ministry of Agriculture and Food (2012). http://www.omafra.gov.on.ca/english/stats/census/cty30a.htm

Ontario Ministry of Finance (2013). Ontario Fact Sheet. http://www.fin.gov.on.ca/en/economy/ecupdates/factsheet.html. June 13th 2013

Ontario Ministry of Finance (2014). Ontario Fact Sheet. Accessed January 20th from: http://www.fin.gov.on.ca/en/economy/ecupdates/factsheet.html

Peterborough County City Health Unit (2012) *Limited Incomes, a recipe for hunger*

Peterborough County City Health Unit Nutritious Basket Calculator (2012) *Calculating a Living Wage for Peterborough*

Peterborough Social Planning Council (2013). *Calculating A Living Wage for Peterborough.*

Peterborough Social Planning Council, *The Future of Peterborough Food & Farming: A Call for Reflection & Discussion".*2011).

Peterborough Social Planning Council (2012). *Quality of Life Report, Peterborough City and County: Indicators Vital to our Community.*

Pirog, R (2001). *Food Fuel and Freeways: An Iowa perspective on how far food travels, fuel usage, and greenhouse gas emissions*. Leopold Center for Sustainable Agriculture, Iowa State University.

Sheena Gordon and Joseph Piwowar, University of Regina. *The availability of locally-grown food in Regina.* Retrieved July 9, 2014 http://pcag.uwinnipeg.ca/Prairie-Perspectives/PP-Vol12/Gordon-Piwowar.pdf

Social Planning Council (2013) *Calculating a Living Wage for Peterborough*

Sorrell, S., Miller, R., Bentley, R., and Speirs, J. (2010) Oil futures: A Comparison of global supply forecasts. *Energy Policy 38 (4990-5003)*

Stabler, B., and Eilerts, G. (2012) Country and regional staple food price indices for improved identification of food insecurity. Global Environmental Change 22 (784-794)

Statistics Canada (2012) Peterborough, Ontario (Code 3515) and Ontario (Code 35) (table). *Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa*. Obtained February 9, 2013 from: http://www12.statcan.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E

Statistics Canada (2012). *Selected Historical Data from the Census of Agriculture, Catalogue no.* 95-632-X*, table 1.1 and 1961 Census of Canada, Agriculture, Bulletin 5.1 – 1, Catalogue no.* 96-530-X *(Vol: V – Part:1).*

Statistics Canada (2012). *Consumer Price Index, transportation, by province* CANSIM, table 326-0021 and Catalogue nos. 62-001-X and 62-010-X. http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ160a-eng.htm. June 13th 2013

Statistics Canada (2012) *Food In Canada.* Obtained May 28th 2013 from: http://www.statcan.gc.ca/pub/16-201-x/2009000/part-partie1-eng.htm.

Statistics Canada (2012). Peterborough, Ontario (Code 3515014) and Peterborough, Ontario (Code 3515) (table). Census Profile. 2011 Census. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Released October 24, 2012. http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/index.cfm?Lang=E
(accessed January 27, 2014)

Statistics Canada (2013) Table111-0009 Family characteristics, summary, annual (number unless otherwise noted), CANSIM (database). (accessed: 2014-01-23). http://www5.statcan.gc.ca/cansim/pick-choisir?lang=eng&p2=33&id=1110009

Statistics Canada (2012). Table 203-0028 Survey of household spending (SHS), detailed food expenditures, Canada, regions and provinces, annual

(dollars), CANSIM (database). Obtained June 12th 2013 from: http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=2030028&pattern=203-0021..203-0028&tabMode=dataTable&srchLan=-1&p1=-1&p2=31

Statistics Canada (2013). *The Consumer Price Index and selected sub-groups, by urban centre, not seasonally adjusted.* Accessed April 20th 2013 from: http://www.statcan.gc.ca/pub/62-001-x/2011010/t044-eng.htm

Statistics Canada (2003). The Daily. *Household Spending on Food: Catalogue number: 62-554-XIE.* Obtained May 30th 2013 from: http://www.statcan.gc.ca/daily-quotidien/030221/dq030221a-eng.htm

Sustain Ontario, 2012. http://www.toronto.ca/housing/pdf/oafb_a_gathering_storm.pdf

The Peterborough Social Planning Council and Farms at Work (2011) *The Future of Peterborough Food and Farming: A Call for Reflection and Discussion.* Obtained June 15th 2013 from: http://www.pspc.on.ca/pdf/final_report_oct_6_the_future_of_food.pdf

Transition Town Peterborough, February 16th 2013. *Our Community Benefit: the Multiplier Effect.* http://thegreenzineonline.com/kawartha_loon/pdfs/Multiplier%20Effect.pdf

U.S Energy Information Administration (2013) Short-Term Energy Outlook. http://www.eia.gov/forecasts/steo/

United Nation's Food and Agriculture Organization, FAO. (2009) The State of Food Insecurity in the World – 2008. Rome, Italy

United Nation's Food and Agriculture Organization, FAO. (2014) Global Food Price Monitor. Rome, Italy

United Nations Food and Agriculture Organization. *FAO Food Price Index*. Accessed January 10th 2014 from: www.fao.org/worldfoodsituation/wfs-home/foodpricesindex/en

Urban Agriculture Literature Review, http://urpl.wisc.edu/ecoplan/content/lit_urbanag.pdf Retrieved July 9, 2014

Workforce Development Board. http://wdb.ca/. Accessed June 11th 2013.

Xuereb, M. (2005) *Food Miles: Environmental Implications of Food Imports to the Waterloo Region.* Region of Waterloo Public Health.

APPENDIX: Additional information used in the report

NET ADDITIONS IN HOUSING UNIT PROJECTIONS IN THE CITY OF PETERBOROUGH 2013-2023

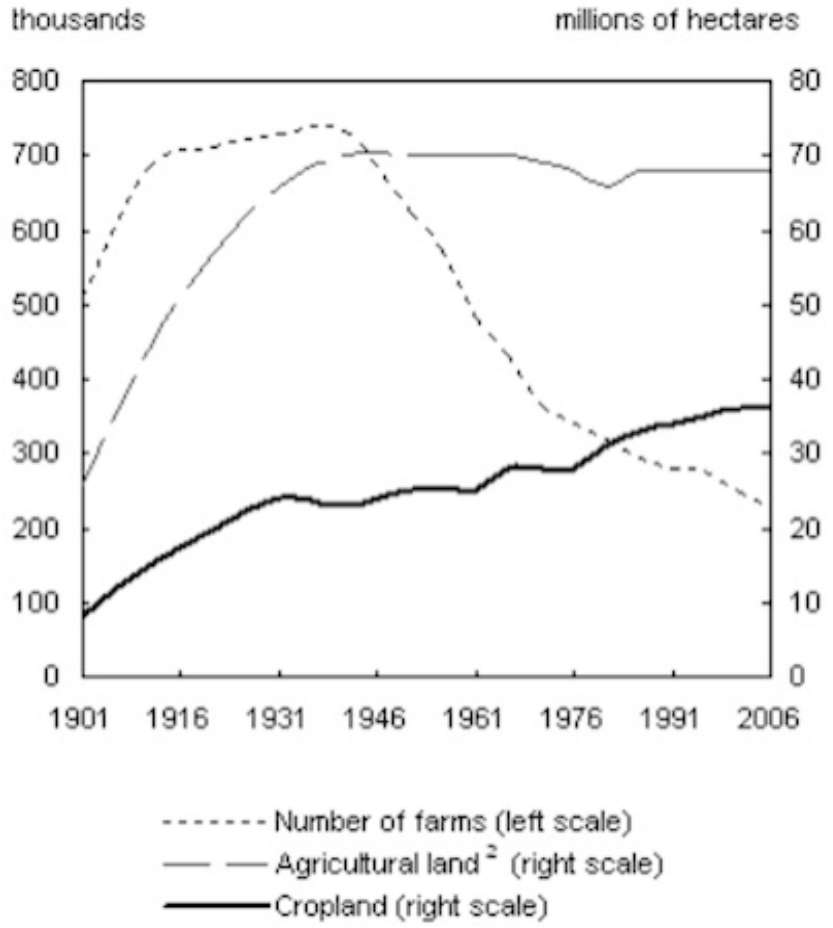
	Traffic Zone	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	1	0	0	0	0	0	0	0	0	0	0	0	0
	2	20	20	20	20	58	58	58	58	58	51	51	51
	3	14	14	14	14	14	14	14	14	14	12	12	12
	4	7	7	7	7	7	7	7	7	7	6	6	6
	5	7	7	7	7	7	7	7	7	7	6	6	6
	6	23	23	23	23	27	27	27	27	27	24	24	24
	7	56	56	56	56	56	56	56	56	56	48	48	48
	8	14	14	14	14	14	14	14	14	14	12	12	12
	9	131	131	131	131	100	100	100	100	100	93	93	93
	10	46	46	46	46	48	48	48	48	48	28	28	28
	11	0	0	0	0	0	0	0	0	0	0	0	0
	12	35	35	35	35	22	22	22	22	22	20	20	20
	13	0	0	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	353	353	353	353	353	353	353	353	353	300	300	300
County	**34619**	35,325	35,678	36,031	36,384	36,737	37,090	37,443	37,796	38,148	38,448	38,748	39,048
City		34,483	35,027	35,231	35,435	35,571	35,707	36,249	36,385	36,520	36,629	36,738	36,885
Sum		69,809											**75,934**
Pop projections		79,312	80,563	81,032	81,501	81,813	82,125	83,373	83,685	83,997	84,247	84,498	84,836

This table shows the Consumer Price Index for transportation by province 2008-2012. As Transportation costs go up in all of Canada, so does the cost of food. Although the price index of transportation decreased between 2008 and 2009, every other year shows a growth in price. It seems as though the price of food as well as the price of transportation has been steadily increasing over the past decade. (Statistics Canada, 2012) CANSIM, table 326-0021 and Catalogue nos. 62-001-X and 62-010-X.

Consumer Price Index, transportation, by province
(Canada)

	2008	2009	2010	2011	2012
	2002=100				
Canada					
All-items	**114.1**	**114.4**	**116.5**	**119.9**	**121.7**
Transportation	119.5	113.1	118.0	125.6	128.1
Private transportation	119.3	112.1	117.6	125.4	127.8
Purchase, leasing and rental of passenger vehicles	92.6	87.2	90.2	90.5	91.7
Operation of passenger vehicles	144.7	135.7	143.8	159.0	162.5
Public transportation	121.4	122.3	121.1	127.9	130.9
Local and commuter transportation	124.5	128.8	135.4	138.7	142.1
Inter-city transportation	119.5	118.6	113.2	121.9	124.7
	% change from previous year				
All-items	**2.3**	**0.3**	**1.8**	**2.9**	**1.5**
Transportation	2.0	-5.4	4.3	6.4	2.0
Private transportation	1.7	-6.0	4.9	6.6	1.9
Purchase, leasing and rental of passenger vehicles	-6.7	-5.8	3.4	0.3	1.3
Operation of passenger vehicles	8.0	-6.2	6.0	10.6	2.2
Public transportation	5.9	0.7	-1.0	5.6	2.3
Local and commuter transportation	4.3	3.5	5.1	2.4	2.5
Inter-city transportation	6.8	-0.8	-4.6	7.7	2.3

This graph shows the number of farms, farm area and land in crops, 1901-2006 in Canada and how these have changed over the years. **Source:** (Statistics Canada, 2012) Selected Historical Data from the Census of Agriculture, Catalogue no. 95-632-X, table1.1 and 1961 Census of Canada, Agriculture, Bulletin 5.1 –1, Catalogue no. 96-530-X (Vol: V – Part:1).



This table shows the area of census farms by county, 1991, 1996, 2001 and 2006 (acres). Large industrial farms generally specialize in a single crop for maximum efficiency and do not serve the food requirements of local populations. Further, much of Canada's food arrives from the United States, about 57.1% in 2008. As stated by Statistics Canada: "Buying organic food is becoming a popular practice. In 2007, 45% of households reported that they often or sometimes bought organic food products, and 5% bought organic food all of the time." Despite this, only "... 15,500 farms, or 6.8% of all farms in Canada, produced organically grown food products in 2006." **Source:** Ontario Ministry of Agriculture and Food (OMAFRA) (2012). Area of census farms by county, 1991, 1996, 2001, 2006 and 2011.

Area of Census Farms by County, 1991, 1996, 2001, 2006 and 2011					
Counties and districts	**1991**	**996**	**2001**	**2006**	**2011**
Southern Ontario	3,902,841	4,100,912	3,985,132	3,934,766	3,827,941
Western Ontario	4,021,332	4,193,177	4,060,986	4,022,856	3,882,384
Peterborough	270,782	261,673	258,642	249,429	228,936
Central Ontario	2,049,187	2,059,487	1,973,104	1,924,794	1,773,625
Eastern Ontario	2,480,000	2,500,799	2,476,109	2,405,740	2,258,128
Northern Ontario	1,017,293	1,025,190	1,012,026	1,022,060	926,158
The Province	13,470,653	13,879,565	13,507,357	13,310,216	12,668,236

This table shows the imports of food into Canada by country, in 2007. Despite the loss of local farms that has been occurring since at least 1991 and the increasing need to import food from other countries, local food is not much different in price than food that is on sale at grocery stores. In the following table, a price comparison of food at local sources is compared to the price of the same items found in Kingston and Verona grocery stores such as *Food Basics, Foodland* and *Loblaw.* As can be seen, some items such as apples, broccoli, spelt flour, and potentially butter is less expensive than the same items found in grocery stores. Those items are made in the area and thus do not have extra costs for transportation and import. **Source:** (Statistics Canada, 2008) International Trade Division, special tabulation.http://www.statcan.gc.ca/pub/16-201-x/2009000/part-partie1-eng.htm

Imports of food into Canada by country, 2007

Symbols | Next | Previous

	Imports	Total food imports	
	millions of dollars	percent	rank
World	**23,729.0**	**100.0**	
United States	13,542.5	57.1	1
Mexico	906.6	3.8	2
China	799.0	3.4	3
Italy	691.6	2.9	4
France	686.0	2.9	5
Brazil	665.1	2.8	6
Chile	523.1	2.2	7
Thailand	483.1	2.0	8
Australia	441.8	1.9	9
United Kingdom	393.6	1.7	10

Source(s): Statistics Canada, 2008, International Trade Division, special tabulation.

This table shows the comparison of food prices, Kingston and Verona Ontario, 2011. By knowing the relationship between food and oil, it is possible to calculate if reducing food import and buying locally will result in lower food prices. As seen above, some local food items such as apples are less expensive than their grocery store counterparts, even in mid-winter and even though there are fewer farms in the area. What would the prices be if more money was invested into the local economy?

A study conducted in 2001 in Iowa, found that a shift of 10% local food purchases resulted in the reduction of 280 to 346 thousand gallons of fuel which is equivalent to the amount of fuel needed to run ten local farms (Pirog, 2001). If the current food production system continues to dominate the food market, then it is necessary to estimate how a continued rise in oil and food prices will impact our local economy and the future of nutritional food. This will help residents of Peterborough to see the difficulty in maintaining a system that requires a great amount of oil for transportation over long distances. Then, the cost of sustaining local farms and purchasing food locally can be compared to see how much money can be saved on both fuel and food. (Source: Holmes, 2011)

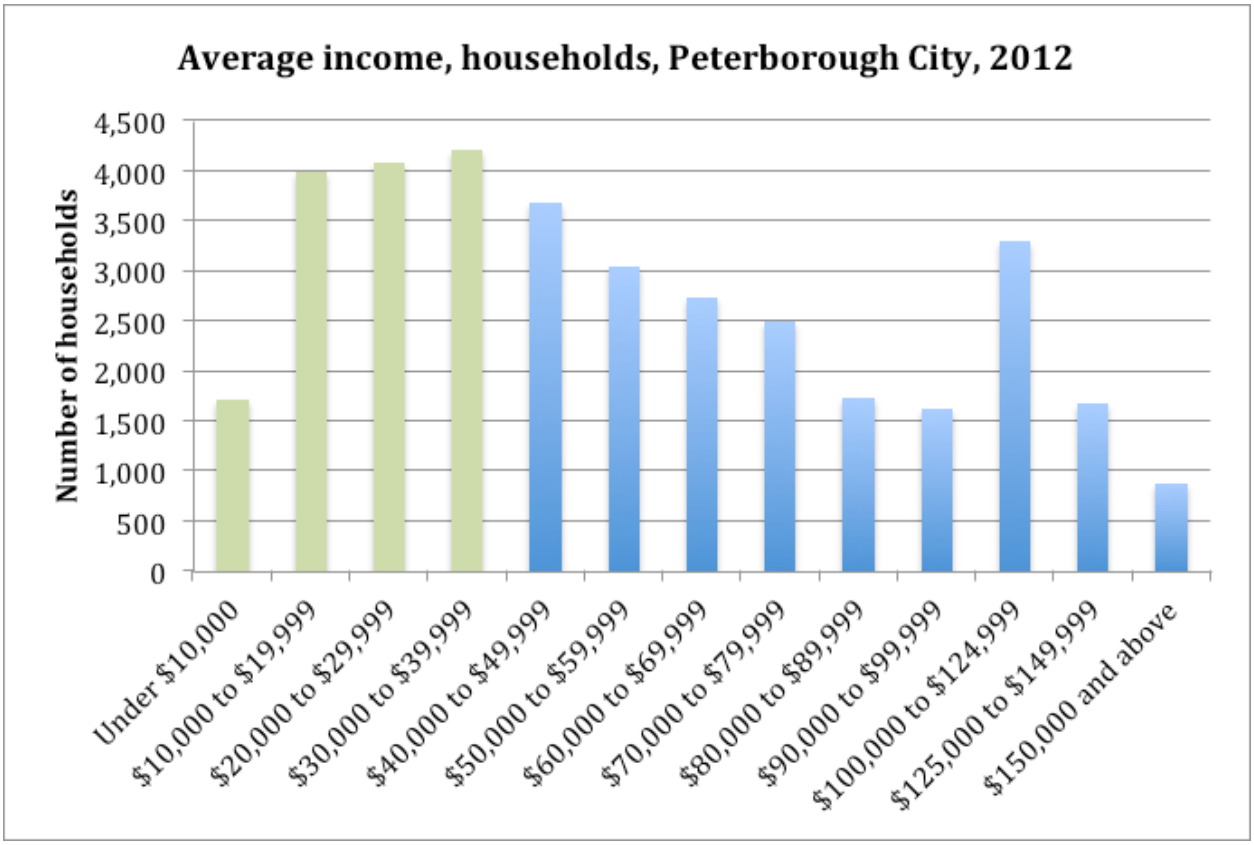
Imports of food into Canada by country, 2007

Symbols | Next | Previous

	Imports	Total food imports	
	millions of dollars	percent	rank
World	**23,729.0**	**100.0**	
United States	13,542.5	57.1	1
Mexico	906.6	3.8	2
China	799.0	3.4	3
Italy	691.6	2.9	4
France	686.0	2.9	5
Brazil	665.1	2.8	6
Chile	523.1	2.2	7
Thailand	483.1	2.0	8
Australia	441.8	1.9	9
United Kingdom	393.6	1.7	10

Source(s): Statistics Canada, 2008, International Trade Division, special tabulation.

This graph shows the household Income (2006), (Source: The City of Peterborough, 2011 Residential Monitoring Report). The Ontario Household Income per capita (per person) average is $33,962 (in 2014) is shown in Figure C-2 in red. (Source: Ontario Ministry of Finance, 2014). There are currently no values for 2013. The earliest data are these: average values for Peterborough are from 2011= $39,848 (GPAEDC, 2012). While Ontario average is from 2012= $ 33,962 (Ontario Ministry of Finance, 2014). As well, to compare, the median total income, Ontario 2011: $73,290, Peterborough 2011: $70,300 (Statistics Canada, 2013). As seen in Figures C-3 and C-4, Peterborough is below regional, provincial and Toronto average.



The median Household Income (2011). The County household total excluding city in 2013 was, 33,121 (County of Peterborough, 2014). In 2011 the total number of private households for both the city and county was: 55,640. Just for the city, the number of households was, 33, 435 (Statistics Canada, Census Profile, 2012). (Sources: GPAEDC, 2012 and Statistics Canada, Table 111-0009, 2012).