

The Elephant in the Neighborhood

An evaluation of recent trends in the Canadian housing market

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INTRODUCTION

The history of the North American housing market reads like a stereotypical tale of the American dream. Beginning in earnest at the end of World War II in 1945, and extending two decades, the boom saw not only birth rates, but also staggering growth in the demand for, and price of, housing (Mankiw & Weil, 1989). This period would become commonly characterized as the baby boom. The parents of boomer babies, who had control of the housing market, sought peace, safety, and a sense of community, which resulted in a desire that led mass numbers of people to move out to the suburbs. While it may have been the boomers parents who were making the housing decisions, the power behind this demand for housing was the millions of babies born in what remains one of the largest birth periods in modern history (Mankiw, Weil, 1989). Baby boomers demanded a suburban change to the housing market when they were born. Now, as the period of retirement begins, the impact of baby boomers may change the market once again. Sustainability may be uncertain for towns and cities facing housing market changes as the ratio of average seniors to working age adults soars (Myers & Ryu, 2008).

Background

In Canada, the period known as the baby boom began between 1945 and 1946, when the number of births increased by 15% (Statistics Canada). This post-war boom continued until 1964, when the birth rate declined for the first time in roughly 20 years. The boom resulted in the birth of 8.2 million Canadians, roughly 412,000 a year. Comparatively, in 2008 the number of births in Canada was 377,886, when the total population of Canada was twice as large as it was during the baby boom (Heath, 2012). In 2011, the baby boomer population, or those between the

ages of 46 and 65, made up 29% of the total population of Canada (Statistics Canada).

The housing market grew in a pattern similar to the lifecycle of baby boomers; a growth pattern many developers and city planners without adequate age related real estate sales data, may have failed to see could eventually end. While baby boomers aged and bought their first, and possibly second homes, the implications for the housing industry were positive and sustained growth. The wave of growth may have finally reached the shore, and in its wake comes a forecasted reduction in demand for certain types of housing. Boomers will begin to sell homes and move into retirement living options, leaving their houses to relatively smaller and less-advantaged generations (Myers & Ryu, 2008). With this change, many towns and cities across North America are on the verge of a tipping point, as the generation behind unprecedented growth in the housing industry prepares to leave the housing market altogether. Furthermore, the recent house price escalation may be aligning with an aging population to create a perfect storm scenario. Not only are boomers set to leave homes to younger generations who do not have the physical numbers to replace them, boomers are leaving homes with values that have skyrocketed, often beyond the affordability range of younger generations (Mason, 2012).

Problem Statement

As Canada marches toward the retirement era of baby boomers, it does so wearing a blindfold. Provinces have been forced to place trust in immigration for continued population growth, as Canadians have smaller and smaller families. Furthermore, with the retirement era of baby boomers commencing, the structure of the Canadian housing market may experience substantial changes. Yet, despite how serious a housing market demand shift may be, it appears that the major stakeholders are not conducting research which would allow for better forecasting. Statistics Canada, Canada Mortgage and Housing Corporation, and the Canadian Real Estate Association do not record the age of buyers or sellers of real estate. Without this data, little is known about age related changes in the real estate market. Information such as this would be important to allow the real estate development and sales markets to more accurately forecast demand for certain dwelling types. Provinces and Municipalities could also benefit from this data, as it would aid in planning and immigration or migration strategies.

To date, it appears this data, as it relates to a possible generational housing bubble, has yet to be estimated for Canada. Therefore, in many jurisdictions, contractors continue to build homes at a rate beyond demand.

Purpose

This study will seek to uncover trends in the affordability level of the housing market, changing patterns in dwelling characteristics, and changing characteristics of family structure in Canada. With this information, this study will allow for the hypothesis of future changes to the housing market. The results will be unique to each province in Canada, and will allow for comparisons between different regions

of Canada. This information will highlight the ability and willingness of younger generations to absorb the housing inventory left behind by baby boomers bound to exit the market within the next two decades.

When complete, the goal of this research will be to identify trends that may be dangerous and unsustainable in the housing market. Through studying ratios of younger and older cohorts, average income levels, and family structure patterns, this research may serve to educate provinces on what this generational change in housing demand may mean to communities. Affordability information is of particular importance for provinces, as evaluating the ability of younger cohorts to enter the housing market will allow for a projection of future growth or decline trends in the housing market. The study outcome will show whether jurisdictions should actively engage in opportunities to either improve the affordability of homes in the region, or work to attract a greater number of young people to relocate.

Research Questions

Research questions were developed allowing major topics affecting the housing market to be separated from one another. The questions seek to address affordability issues, changing dwelling characteristics, and evaluate market characteristics.

Given that this study attempts to answer multiple questions about the aging of the baby boomer population, the following research questions were developed.

1. What is the relative affordability of housing by age cohort both at a provincial level, and does average income appear to be changing at a rate similar to average house price?

2. How has the rate of property ownership by dwelling structure evolved over time?
3. Comparing the recent (2006-2010) housing market characteristics to those from the period 1981-1986, when homeownership decreased for younger age cohorts, how does the more recent situation compare in terms of house price increase, average income increase, and family structure by number of children?

The answers to these questions serve as the foundation for this study. The analysis of existing data may provide valuable information to jurisdictions across Canada, as well as to the development community as a forecast for future housing needs.

Nature of the Study

This research topic exposed a vital missing link in current documentation surrounding the housing industry: the fact that the age of buyers and sellers is not documented. Therefore, the initial challenge of addressing this topic was finding appropriate data to forecast trends that may affect how prepared local housing markets are to transition housing inventory to younger age cohorts.

The nature of the available evidence would lend this study to an evaluative methodology where data from different sources is synthesized and described to examine trends. The data for this study was collected from Statistics Canada regarding population trends, average income levels, and new home construction information. This data was compared and contrasted against information from Canadian Real Estate Association (CREA), which provides detailed information on market pricing in Canada. The study will compare Statistics Canada population,

income, and family structure data with CREA house price data, to uncover trends that may be affecting the province's housing market. With this information, the sustainability of the provincial markets can be discussed as it relates to the ability of younger age cohorts to enter the market.

For comparison, each province was evaluated individually. The theory behind this decision was that studying only one particular region of Canada would not provide a true comparison between areas experiencing growth and areas beginning to experience decline. Furthermore, to study only cities could cause urban jurisdictions to dominate the data. The idea for this study was to replicate a similar United States based study conducted by Myers and Ryu (2007), titled "Aging Baby Boomers and the Generational Housing Bubble." That study compares data on a state level, and to avoid possible urban bias, this document will use provinces as sample data.

Limitations & Assumptions

This study has many notable limitations, which are conditions surrounding the study which are beyond the control of the researcher. These limitations included:

- All available information which included data related to income, dwelling characteristics, family structure, and house price, but did not include age related sales data
- Canadian information
- Statistics Canada predetermined age cohorts
- Statistics Canada census years or years of data collection

While replication of Myers and Ryu's (2007) study was intended, it became obvious that there existed data used in the United States study, which was the foundation for this study, which simply does not exist in Canada. No agency in Canada records the age of buyers and sellers of real estate. As a result, this study was unable to definitively answer the original intended question, which related to predicting the time period when baby boomers would be exiting the real estate market more than buying into it. Therefore, this study sought to contribute to the information available to home owners, real estate agents, city and town planners, and real estate developers, all of whom share an interest in the future of the housing market in Canada.

With all research there are assumptions, which are details regarding the information used, which is assumed by the researcher to be accurate and reflective of the sample. These assumptions include:

- Data used from Statistics Canada, including 20% sample data, is accurate
- Pricing data from CREA is accurate and reflective of provincial house price averages

The primary assumption is that the available data is correct, and accurately represents Canada and each of the ten provinces. While most of the data was from Statistics Canada, the agency occasionally uses a 20% sample to compile summary tables. Therefore, it must be assumed that these samples are accurate of the greater population. With regard to house price, the assumption was made that the data used from the Canadian Real Estate

Association accurately represents the average price of a dwelling in Canada both on a national and provincial level. This data is not free from urban bias from large metropolitan areas like Vancouver and Toronto, for which there is no control.

LITERATURE REVIEW

The literature review is a survey of scholarly articles, books, and other sources that are relevant to the topic (Concordia University Library). Given the

broad scope of this study, the literature review touches on several major topics. To begin the literature review, search topics were gathered from Myers and Ryu's (2008) study titled "Aging Baby Boomers and the Generational Housing Bubble." These topics included: population generations, housing bubbles, generational housing bubble, young people and the housing market, and boomer equity and retirement trends. Relevant data was searched on Google Scholar, Business Source Premier, and through Statistics Canada's Economic Analysis Research Paper Series. Statistics Canada data was searched through the agencies major headings, including: income, pensions, spending and wealth, and families, households and housing. Data obtained through databases was searched using keywords, which included: generational housing bubble, housing bubble, housing market, young generations in the housing market, and family structure changes.

A wealth of information was uncovered pertaining to trends in homeownership by age and income. Basic information exists on the structure of the population generations within Canada and real and speculative housing bubbles in Canada and the United States. Many studies have also focused on the presence of young people in the housing market, and baby boomer retirement trends and home equity. Information specific to the idea of a generational housing bubble, which was suggested by Myers and Ryu (2008), appeared to be limited. There exists limited data on the impact the retirement of baby boomers will have on the housing market.

In the research of Myers and Ryu (2008), they too uncovered a gaping hole in information relating to the age of buyers and sellers. Through careful examination of available data, they were able to use different pieces to formulate an estimation of

when boomers would begin selling more than re-buying. However, even this level of data was unavailable in Canada.

Supporting literature for this study is comprised of articles from peer reviewed journals, which fall under major headings including: housing bubble, generational housing bubble, baby boomer housing, and average price of homes.

Raw data on everything from housing information, to income statistics, and population trends was found using various Statistics Canada databases and summary tables. Statistics Canada's wealth of information has proved vital to this study. When the literature and data search turned more toward the housing industry itself, sales data was compiled from the Canadian Real Estate Association.

The media has expressed interest in the both generational issues, and separately the housing industry. Therefore, it came as no surprise that there is an abundant selection of news articles and blogs that focus on either the housing bubble, baby boomers aging in the housing market, or the future of the housing industry. Additionally, there are articles that make a compelling statement by connecting all three major topics.

For the purposes of this literature review, the following topics will be discussed: generations in Canada, housing bubbles, speculative bubbles, generational housing bubble, young generations in the housing market, and boomer home equity and retirement trends.

Generations in Canada

The definition of generation can have many meanings and has been known to include not only the specific time period within which a group of individuals was

born, but has been used to further classify people based on shared life experiences. This is evident in the classification of the baby boom generation of Canada and the United States, that not only shared specific birth years, but also similar economic and post war conditions. For the purposes of this study, generations are referenced only in the context of birth years, and are defined by the generational cohorts established by Statistics Canada. The three largest generations present in the current Canadian population are the baby boom generation, their parents, and their children (Generation Y). Also present are the smaller generations known as 'World War II' and Generation X (Generations in Canada, 2013).

The parents of the baby boomers were born between 1919 and 1940, almost exclusively during war times. In 2011, there was an estimated 3.1 million people in this generation, aged between 71 and 92 (Generations in Canada, 2013).

The population of Canada also includes the World War II generation, born between 1941-1945, totaling 1.4 million people in 2011, aged between 66 and 70 (Generations in Canada, 2013).

The largest of cohorts, the baby boomers, was born between 1946 and 1965. This generation was first noted when the annual birth rate rose approximately 15% between 1945 and 1946. During this period, Statistics Canada noted the average number of children per woman was 3.7. When the boom ended, more than 8.2 million babies had been born into this cohort. This generation also welcomed sustained immigration, which made it the largest generation in the Canadian population. At present (2013), the baby boom generation is aged between 48 and 69. It is estimated that by 2031, the youngest members of the baby boom generation

will have reached age 65, raising the proportion of seniors to 23%, compared to 15% in 2011 (Generations in Canada, 2013).

Generation X was born between 1966 and 1971, during a period of rapid decrease in fertility rates in Canada. In 2011, there were 2.8 million people in Generation X, aged between 40-45. This generation has been characterized by its difficulty to enter the job market in the recession burdened 1980's (Generations in Canada, 2013).

The children of the baby boomers are another sizeable proportion of the Canadian population, born between 1972 and 1992. In 2011, 9.1 million people indentified with being in this generation. They were aged between 19 and 39 at the time of the 2011 Census of Canada. This generation is known as Generation Y. Research into census results has shown that in 2011 this generation, the children of the baby boom, was smaller than that of their parents, with 9.1 million Generation Y's, and 9.6 million baby boomers. This highlights the emergence of a trend that has continued to present day: a reduction in the number of children per woman. Where the previous two generations had characteristics surrounding war, Generation Y has shared socio and economic changes including a change in family structure and rapid technological advancements (Generations in Canada, 2013).

The generations present in the Canadian population have significant implications on the housing market and the demand for new construction by dwelling type. With the largest generation beginning a two-decade period of retirement, demand may shift away from single family housing options (Myers & Ryu, 2008).

Housing Bubbles

Given that younger generations do have the physical presence in the population that baby boomers do, it could be hypothesized that they were set to struggle absorbing housing market already. However, compounding the problem is the fact that house prices have taken off. Housing bubbles, which have traditionally been localized problems, have become a worldwide phenomenon. As Shiller (2007) wrote:

Dramatic home price booms since the late 1990s have been in evidence in Australia, Canada, China, France, India, Ireland, Italy, Korea, Russia, Spain, the United Kingdom, and the United States, among other countries. There appears to be no prior example of such dramatic booms occurring in so many places at the same time.

Therefore, an almost global boom in prices is exacerbating the problem of housing supply verses demand. A most interesting point to note is that it appears the dramatic increase in prices is unexplainable (Shiller, 2007). In the United States, real house prices rose 86% between the end of 1996 and the beginning of 2006, representing a ten-year stretch of unprecedented increase. No logical explanation has been presented, as real rent has been stable compared to home values and selling prices (Shiller, 2007).

Real rent, or Owners Equivalent Rent (OER), is the amount of rent that could be paid to substitute a currently owned house for an equivalent rental property (Ivestopedia, 2013). OER of a primary residence is one of the two main components of the Consumer Price Index, and attempts to include all necessary elements to

estimate changes in shelter costs (Investopedia, 2013). As Shiller (2007) noted, real rent has increased only 4% in the same period where house prices rose 86%. This figure, adjusted for inflation, displays little to no change in the market for housing services, and that, “all increases have been in the capitalization of the value of these services into price” (Shiller, 2007).

Furthermore, Shiller discovered that other factors often blamed for inflated house prices, such as rising material costs and labor costs, do not support the recent escalation. Many of the physical components of home construction have risen, although only slightly, and in the case of some components like lumber, the price has actually fallen 32%. Therefore, a dramatic price increase must be attributed to a substantial rise in labor costs. Yet this idea is also not supported by fact. Labor costs showed little changes as common-labor earnings stagnated over that same period (Shiller, 2007).

Time has shown the power of the housing market, and the potential severity of a burst in the real estate bubble. Researchers have generally accepted that the US housing market collapse of 2008, which occurred just after Shiller’s warnings in 2007, sent the United States into a recession (Holstein, O’Roark, & Lu, 2013). By the fall of 2012, economists estimated that US house prices had finally hit rock bottom. After losing 34% of their value, house prices had begun to move sideways rather than downward, showing early signs that the burst was over (Pollock, 2012). The boom in the United States was intensified by the financial services used by the banking industry to escalate economic growth. By issuing sub-prime mortgages, often to people who could not truly afford the loans, on houses whose value had

been overinflated, banks increased the risk of mortgage default dramatically (Ashcraft & Schuermann, 2008). To protect themselves, banks then packaged these mortgages and sold them to investors. Since the investment was backed by physical property, which was believed to 'never' decrease in value, these investments were deemed safe; in fact, many carried AAA ratings (Eggert, K. 2009). When thousands upon thousands of the mortgages in these packages began to default, however, investors and banks were left with foreclosed homes that had little to no value compared to the amount for which they were mortgaged. Because banks were unable to sell the assets, these investments became toxic and were responsible for the collapse of several major US companies, including but not limited to Lehman Brothers, Bear Sterns, and AIG Insurance (Shiller, 2006).

In retrospect, when evaluating the US collapse, researchers note many indicators were evident. Canada is experiencing a price escalation equal to that of the United States prior to the 2008 recession, and a bubble burst plunging prices an estimated 25%, is now forecast by some to be imminent (Badkar & Kawa, 2012). Frustrating many forecasters, economists, and journalists, is the fact that all the warning signs are there. As Morely (2012), Columnist for *The Trumpet* wrote:

Perhaps the saddest part of this ongoing crisis is that only a few years ago, the US had all the same symptoms that Canada has now: heavy debt, credit downgrades, rising housing prices, misplaced confidence in the system – but Canada hasn't learned from its neighbor.

Canadian house prices have moved far above levels reached in the United States at the peak of its bubble. After yearly increases for eight years, followed by a slight

correction in 2009, Canadian prices have surged once again. Surging along with prices is anxiety that this is another house price-mortgage bubble. When the United States stumbled into recession, the national average house price index was 189.9, recorded in the second quarter of 2006 (Pollack, 2012). At that point, Canadian prices were substantially lower. However, in 2012 the US index corrected itself to 130.0, while the Teranet-National Bank Canadian Home Price Index was at a staggering 220.0 (Pollack, 2012). The warning messages have begun appearing in the headlines of Canadian newspapers. Hopkins (2012) outlined the sharp and sudden appearance of a Canadian housing market slowdown in a article for the *National Post*. The abrupt slowdown has left buyers and sellers fearful, and the numbers reflected an escalation of that fear. Sales were down 15.1% in September of 2012 when compared with the same month in 2011. In addition, for the 10th month in a row, price gains have been decelerating, down 0.4% from September to August (Hopkins, 2012).

While many economists warn of a market correction rather than a collapse, columnist Morely (2012), who has warned of the Canadian housing bubble for over two years, has said we are getting close to bursting, and when that happens, “expect a massive economic implosion.”

Speculative Bubbles

There appears to be no economic explanation for the previous US and current Canadian housing bubbles. Shiller (2007) described how the theory for these two price bubbles is psychological rather than economical:

The venerable notion of a speculative bubble can be described as a feedback mechanism operating through public observations of price increases and public expectations of future price increases. The feedback can also be described as a social epidemic, where certain public conceptions and ideas lead to emotional speculative interest in the markets and, therefore, to price increases: these, then, serve to reproduce those public conceptions and ideas in more people. This process repeats again and again, driving prices higher and higher, for a while. But the feedback cannot go on forever, and when prices stop increasing, the public interest in the investment may drop sharply: the bubble bursts.

While economists have argued that speculation has little to do with hard pricing, there lies an obvious disagreement with the opinions of popular journalists, and those studying sociology and social psychology. Arguments have been made that speculative bubbles began in the housing market because the world was entering a new era of capitalism (Shiller, 2007). This period has been characterized by growth in overseas markets, and substantial growth in salaries of top wage earners in North America. The belief is that house sales and prices were influenced by affluence, whether direct or indirect. The new wealthy could afford to pay for what they wanted, and everyone else felt the need to rush into the real estate market before being ultimately priced out of it. Speculation began in glamour cities like Los Angeles and New York, where respondents to pre-bubble surveys answered that they expected larger than normal growth in the value of their home. Eventually, this

phenomenon would spread to most major cities in North America, the explanation for which was:

Times and places with high home price increases show high expectations of future home price increases, and when the rate of price increases changes, so too do expectations of future price increases, in the same direction (Shiller, 2007).

People now seemed ready to accept that the recent home price run was partially the result of a social epidemic of optimism toward real estate.

This trend in itself is interesting, as until recently, housing had not been thought of as a speculative asset. Housing was always a manufactured product. Thus, it seemed rare for people to speculate incredible financial return from a manufactured house. Shiller (2007) argued that doing this would be similar to expecting large returns from buying and holding furniture. Along with an inflated value attributed to the physical structure of a house, this growth represented a rise in the percent of a home's value, accounted for by land, in the US from 15% in 1930 to 47% in 2006.

Outside of the 2008 US boom (and ongoing Canadian boom) there existed one other period where homeownership rose, from 1940-1960. Between 1960 and the late 1990s, homeownership levels remained fairly consistent, coinciding naturally with the entry of young buyers, and the exit of senior homeowners (Shiller, 2007). The primary difference between the growth that began in 1940 and the 2000s boom, is that it was created through government policy to increase homeownership on the tail of the Great Depression. This financial incentive allowed

this boom to be traced almost entirely to economics. The more recent boom appears to be attributed to psychology, which has encouraged, through speculation, buyers, sellers, and lenders, to join the ride to financial success through real estate (Shiller, 2007).

Young Generations in the Housing Market

Homeownership has been noted as very important to all generations in Canada. Younger generations are no different; with 76% of people aged 25-39 stating that homeownership was very important to them (Turcotte, 2007). While the value younger generations place on homeownership is not changing, researchers and statisticians have expressed concern over other factors that may affect the ability of younger cohorts ability to purchase a home (Turcotte, 2007). These factors include: a continued rise in home prices, prolonged duration of formal education, and a delayed transition into adulthood through marriage or parenthood. While deterrents exist to homeownership for young generations, it does not appear to affect homeownership rates of individuals in this generation with higher income positions. Low borrowing rates and a relatively strong market in Canada has counteracted a change in family structure and prolonged formal education. As Turcotte wrote in 2007:

Only 22% of young adults reporting a household income of less than \$30,000 per year were homeowners; meanwhile, 68% of those with incomes of \$50,000-\$80,000, and 82% of those with \$100,000 or more were homeowners.

Many researchers noted income as a significant determining factor of homeownership for younger cohorts (Turcotte, 2007). Turcotte (2007) also wrote of an observed delay in younger generations leaving their parent's home. Many originally hypothesized that this delay was because of prolonged formal education and the temporary nature of jobs held by young people. However, newer evidence suggested it was due to younger people saving to buy their first home.

Statistics Canada (2013) suggested that while homeownership rates continue to rise as a national average, the numbers favor those in high-income positions, and that the delay in family formation is another significant factor affecting the number of young people in the housing market. Furthermore, as house prices continue to climb, the cost of renting versus owning may become so distorted, that ownership rates will fall for a larger proportion of the younger generations in Canada (Brown & Lafrance, 2013).

Generational Housing Bubble

Within a growing price bubble, it has been argued, brews a secondary bubble that is based not on price, but on an impending generational shift in the housing market. While some economists' accurately predicted US housing bubble and its collapse, they have often predicted that the current Canadian housing bubble would only be a short-term reality (Sichelman, 2008). However, the US took six years to bottom out from a burst based essentially on house price (Pollock, 2012). Meanwhile, some forecasters are predicting a larger generation bubble, one of monumental proportions, lies just ahead (Myers & Ryu, 2007).

The foundation for this project, Myers and Ryu's (2007) "Aging Baby Boomers and the Generational Housing Bubble", is the only academic article that specifically targets the generational issue facing the real estate market. Further articles and columns cite back to this original document. The essential idea is not entirely new, that the retirement of the baby boom population from the housing market will lead to a secondary burst of the market. The two Harvard economists, who predicted a generational bubble would burst in the 1990s, were mocked for the inaccuracy of their predictions when the market boomed through that decade. However, Myers and Ryu suggested that, "while their timing was off, their theories were not" (Sichelman, 2008). The idea of a generational bubble is that the baby boomer population, who have driven the housing market up since 1970, will shift to drive sales and prices down by exiting the market in unprecedented numbers. According to Myers and Ryu (2007), the implications are far reaching, and "could dominate the housing market for up to two decades."

Certain researchers argued that particular elements of a generational bubble might actually be a good thing for young generations (Mason, G. 2012). A reduction in prices will enable younger generations to enter the housing market earlier than forecast. While this sounds promising, the younger generations following the boomers are smaller in size. Essentially, immigration would be key to fill the void as the ratio of seniors to working age adults rises (Mason, 2012).

While Myers and Ryu (2007) were able to estimate the impact of a generational bubble on each state in the US, the same data has not been forecasted for Canada. In the United States, the rates of buying and selling a home have

traditionally remained closely tied with each other; essentially, when people sell a home another is purchased (Myers & Ryu, 2007). Eventually, the rate of buying falls off. The age where selling begins to outpace purchasing is different at the state level, suggesting that seniors own homes longer in some states than in others (Myers & Ryu, 2007). In the U.S., hypothesizing which states have more home sales attributed to senior buyers is not difficult. Sunbelt states like Florida, Arizona, and Nevada tended to attract a higher population of older residents, a percentage of which will buy houses. Northern states, on the other hand, tend to see home sales in older cohorts outpace purchases earlier than southern states (Myers & Ryu, 2007).

Myers suggested that the housing bubble the United States is just beginning to recover from may have reduced the possible damage of a generational bubble. This is based on the downward correction of house prices, and the evidence that many baby boomers may be delaying retirement. Professor Myers has since noted, “the generational bubble is less cataclysmic than it might have been, and that’s a good thing.” However, still wary of the future, Myers suggested the problem has not vanished, and believes the number of buyers in the younger generations is still too low for all those selling in older generations (Mason, 2012).

In Canada it appears that many economists either have avoided the issue, whether intentionally or unintentionally, or have suggested it is too early to say how the change will impact Canada. Somerville, a professor at the University of British Columbia’s Centre for Urban Economics, has indicated:

The places that need to worry are those cities with an aging profile that don’t have big net immigration numbers and are seeing their young move to other

places. There are some centers that fit that description that maybe should be worried (Mason, 2012).

The true impact aging baby boomers will have on the housing industry is unknown, however, perhaps most evident: with the youngest of the baby boomer population turning 65 in 2030, the real estate market is surely entering a prolonged period of transition (The Economist, 2008).

Boomer Home Equity and Retirement Trends

Myers and Ryu's 2007 study missed the market crash and subsequent recession that began in 2008; therefore, many new elements are at play than originally predicted. In particular, baby boomer wealth, especially in the United States, has changed dramatically. With a decline in house prices, household net worth, and increased unemployment, many members of the baby boom population are financially battered and bruised heading into retirement. This has changed the founding principles of what will become a generational housing bubble (Levanon & Cheng, 2011). Estimates differ regarding the impact the now-ending recession will have on baby boomers. Furthermore, the impact the recession had on boomers was different in the United States than it was in Canada, with American boomers experiencing more widespread job loss and financial insecurity based on the heightened severity of the US recession (Levanon & Cheng, 2011).

The first major implication is that due to changes in employment, many boomers have decided to delay retirement. Researchers have noted that this decision appears more prevalent in certain sectors of the economy, with more highly educated managers delaying retirement longer than workers in physically

demanding jobs (Levanon & Cheng, 2011). Furthermore, with more highly educated, upper-level managers delaying retirement, a delay also exists in the sale of their larger, more expensive homes. This delay in retirement may change the generational housing bubble, as it may spread the sale of baby boomer's homes over a longer period than initially forecasted. The implications for younger generations may be the opportunity to save so they can more comfortably absorb the housing inventory (Levanon & Cheng, 2011).

Further exacerbating a potential change to the generation housing bubble is the fact that boomer wealth has been heavily impacted by the latest recession (Credit Union Research & Advice, 2009). A study conducted by the Credit Union National Association of the United States found that overall wealth accumulated by baby boomers was gutted by almost 50%. Hardest hit was housing wealth, where boomers appeared to be relying heavily for retirement (Credit Union Research & Advice, 2009). Surveys have shown that approximately one third of Canadian baby boomers are hoping to fund retirement by selling a home. These houses may be listed at the height of a market characterized by declining prices as a result of over supply (Marr, 2010). In the US, boomers lost almost \$6 trillion dollars in housing wealth throughout the most recent recession, which was further compounded by a collapse in the stock market. Younger generations in both Canada and the US enjoy the luxury of having time to re-build a nest egg, but for many on the verge of retirement, that luxury is nonexistent (Credit Union Research & Advice, 2009).

The reality is that with a generational housing bubble set to play out regardless of external pressures like recessions and house price depreciation, baby

boomers need to prepare for the potential realization that homes may not be the retirement funding vehicle they once were. In fact, the authors for the Credit Union National Association report on boomer wealth stated that, “homeownership is not everywhere and always an effective way to accumulate wealth” (Credit Union Research & Advice, 2009).

Conclusion

This literature review looked at the various factors that affect the housing market including generational issues, housing price bubbles, and young people in the housing market. The following section provides a methodology used to address the three research questions that form the basis of this paper.

METHODOLOGY

The challenge in selecting a proper methodology for this study became evident very early. Given that Canada is missing data that was available in Myers & Ryu’s (2007) US study, it was determined that the best methodology would be one

of evaluation of the available data. By synthesizing and describing trends that presented themselves through the combination of different data sources, this study was able to add value in understanding the current Canadian housing market.

The two primary data sources for this study were Statistics Canada, and the Canadian Real Estate Association (CREA), both of which compile data on a national level. Supporting data was compiled from Canada Mortgage and Housing Corporation. Data elements from Statistics Canada included: individual income average by province, the number of occupied dwellings by unit type by province, and family structure information for Canada. Data elements from the CREA included: average residential resale price by province. These elements were available through online sources at both Statistics Canada and CREA. Data from Statistics Canada's CANSIM database was used as well, as the researcher can manipulate this data to select only years applicable to the study in question.

The population of this study was limited to the ten provinces of Canada to obtain provincial results, and Canada as a whole to obtain national results. The territories of Canada were excluded on the basis of limited data, and limited impact on the overall housing trends of Canada. This sample was chosen based on the initial 2007 study by Dowell Myers and SungHo Ryu, titled "Aging Baby Boomers and the Generational Housing Bubble," who evaluated the United States on an individual state level.

This study will evaluate data from both Statistics Canada and the CREA, and take the critical step of combining the data to describe trends that appear. The data elements, when combined, paint a more complete picture of the housing market

than when evaluated individually. Data analysis involved Microsoft Excel to determine averages, ratios, and percentages needed to answer each research question. Excel will be used to calculate ratios for the first question, which involves data on average income levels per age cohort in each of the ten provinces, and the average resale house price per province. These ratios will determine the number of times greater the average resale house price is compared to the average income of each cohort. Age cohorts were predetermined based on Statistics Canada data. The larger ratios will indicate provinces where the level of affordability is lower than those provinces with low income to house price ratios. Furthermore, it will be the description of change through the years studied that will provide a glimpse as to whether a province is becoming more or less affordable to purchase a home in.

Microsoft Excel will also aid in the calculation of the second question, which seeks to examine trends in dwelling type in the housing industry. For this question, the number of occupied dwellings will be used from Statistics Canada for the census periods 2001, 2006, and 2011. The numbers in each of the dwelling characteristic sub categories will be compared across census periods to identify positive or negative growth trends. This data will also be collected on a provincial level. The results will allow the researcher to see trends regarding the types of dwellings that are growing or declining in each provincial jurisdiction.

The third question will incorporate historical information to compare the more recent trends in family structure, house price, and income level with those of the period 1981-1986, which is the last period identified with negative growth in homeownership for the youngest age cohorts in Canada. This question is very

observational in nature, and serves only to hypothesize elements of the current housing market. The average number of children, as it applies to family structure, will be examined to identify trends between the years 2006, 2008, and 2010. The average price of a house on a national level will be compared within the same years to determine the growth rate of house prices. Finally, the average income per age cohort will be examined in similar fashion, allowing a comparison between the growth of income levels and the growth of house prices.

RESULTS

The purpose of this research was to investigate the potential effects a generational housing bubble may have on the provinces of Canada. The research may, more specifically, help jurisdictions identify changes that may be on the horizon. The results section of this paper is divided into four sections that address the three research questions:

1. What is the relative affordability of housing by age cohort both at a provincial level, and does average income appear to be changing at a rate similar to average house price?
2. How has the rate of property ownership by dwelling structure evolved over time?
3. Comparing the recent (2006-2010) housing market characteristics to those from the period 1981-1986, when homeownership decreased for younger age cohorts, how does the more recent situation compare in terms of house price increase, average income increase, and family structure by number of children?

Research Question One

The first research question sought to identify differing rates of housing affordability in Canada. In order to provide a more detailed view of affordability, this question involved two key layers: a breakdown of data on a provincial level, and a breakdown of data on an age cohort level. This question involved data from Statistics Canada on the Average Income Per Recipient for each of the ten provinces in Canada, based on the following pre-determined age cohorts: 20-24, 25-34, 35-44, 45-54, 55-64, and 65+, as well as data from the CREA on the Average Residential Resale Price as calculated on a provincial basis. The results were calculated to give a ratio of affordability based on the how many times the average resale price of a home is compared to the average income of individuals in each cohort. The years of study for this question were 2006, 2008, and 2010. Results are broken down on a provincial level below.

Newfoundland and Labrador

Newfoundland and Labrador (Newfoundland) exhibited housing prices that are escalating at a rate higher than income for all cohorts. Based on the data, in 2006 Newfoundland had some of the lowest ratios in Canada, making it one of the most affordable provinces within which to live. The 2006 results show that four out of six cohorts had a ratio under four (average price / income), while only the youngest cohort, 20-24, had a ratio higher than five. Newfoundland was the most affordable province in 2006 for the age cohort 25-34 to purchase a home. In 2008, Newfoundland ratios rose, and it lost its most affordable position. Four of six cohorts had ratios under five; most cohorts experienced at least a full point gain over 2006 results. The province fell from second to fifth most affordable for the 20-24 cohort, and the 65+ cohort. This trend continued in 2010, with Newfoundland moving from among the most affordable places to live in Canada in 2006, to middle of the group in 2010. The province lost ground in the middle cohorts as well, moving on average into 6th place among the ten provinces.

From 2006 – 2010, average individual income in Newfoundland rose 13.51%, leading the country in growth. However, the average house price followed suit, rising 52.53% for the same period; the largest increase in Canada. These figures produced the greatest difference between income and house price in Canada for the period 2006 – 2010, with house prices outpacing income growth 39.02%.

Figure 1 shows the average house price / average income for Newfoundland for periods 2006, 2008, and 2010.

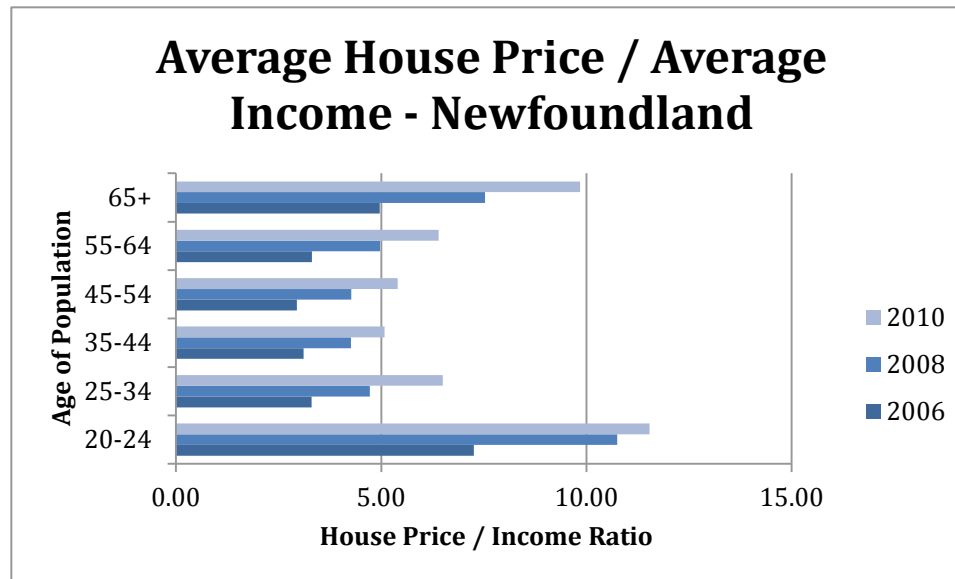


Figure 1. Average House Price / Average Income - Newfoundland

Nova Scotia

Nova Scotia appears to hold a steady position in the middle of the pack, exhibiting a small increase in house prices represented by a gain in most cohorts from 2006 to 2008 of less than one full point. This apparent stability appears again from 2008 to 2010, with most cohorts seeing an increase less than one full point. In 2006, 2008, and 2010, Nova Scotia was regularly in the top five affordable provinces.

From 2006 – 2010, average income rose 3.50%, while average house price rose 23.37%. With a difference of 19.87% between income growth and house price, Nova Scotia placed finished sixth most affordable province in Canada based on the figures used for this study.

Figure 2 shows the average house price / average income for Nova Scotia for periods 2006, 2008, and 2010.

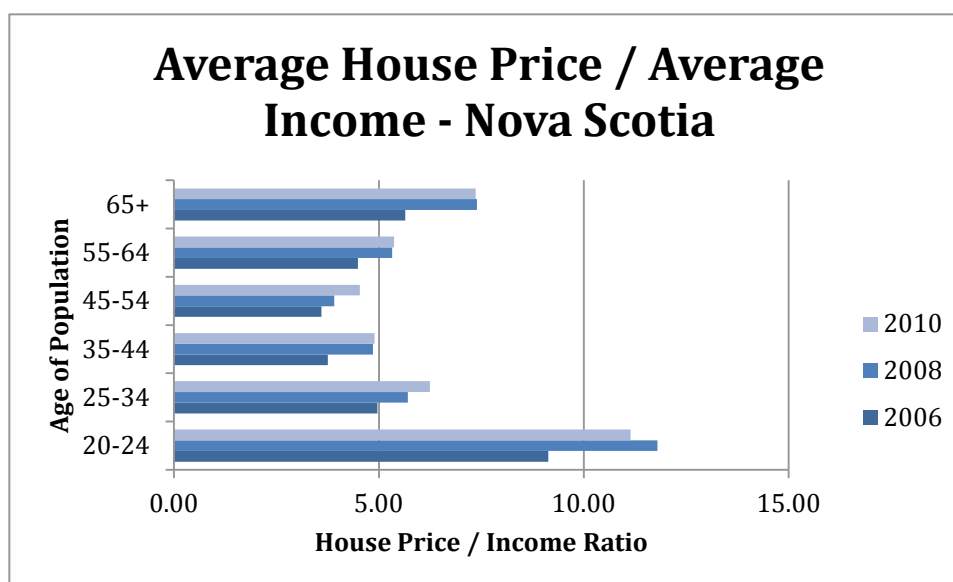


Figure 2. Average House Price / Average Income – Nova Scotia

Prince Edward Island

Prince Edward Island (PEI) displays an opposite trend. From 2006 to 2010, it generally became more, not less, affordable to purchase a home when compared to other provinces in Canada. In 2006, PEI was within one point of the most affordable province in all cohorts except 20-24. In 2008, the province moved into the most affordable position in Canada for every cohort, and scored one of the lowest ratios for the 20-24 cohort that appeared across all data collected. In 2010, the province had lost its most affordable position in only one cohort, 25-34, coming second to New Brunswick.

From 2006 – 2010, Prince Edward Island had a trend opposite of the rest of Canada. Average income rose by 4.42%, outpacing the growth of the average house price, which rose by 1.90%. These results placed Prince Edward Island in a category of their own, with a -2.52% difference between house price growth and income

growth. The province actually became more affordable to buy a house in from 2006 to 2010; the only province in Canada with which this occurred.

Figure 3 shows the average house price / average income for Prince Edward Island for periods 2006, 2008, and 2010.

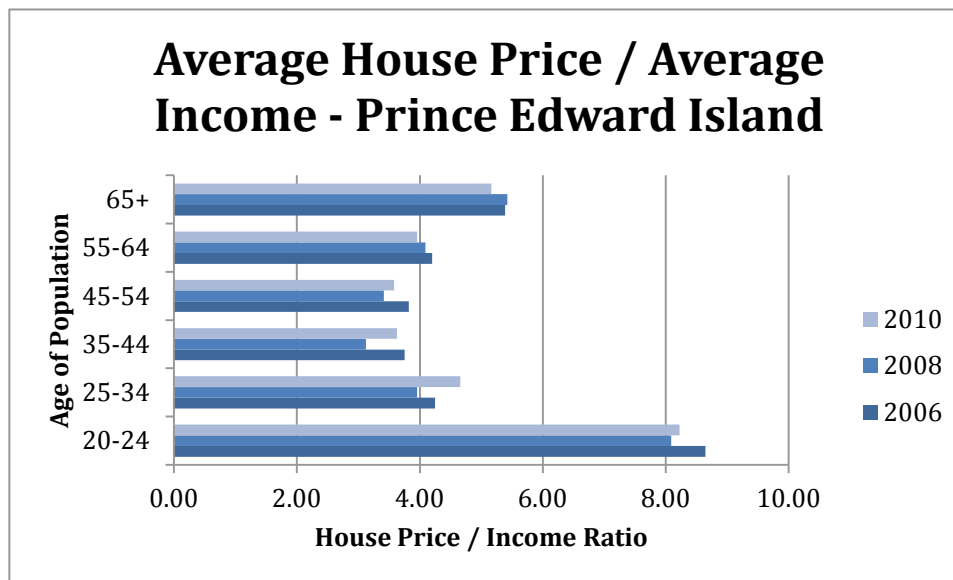


Figure 3. Average House Price / Average Income – Prince Edward Island

New Brunswick

New Brunswick is similar to Nova Scotia in that it displayed relative consistency with no major shifts from 2006 to 2010. The province is generally within half a point from the most affordable position for all cohorts, and as mentioned above, was the most affordable for the cohort aged 25-34 in 2010. New Brunswick is regularly second or third most affordable given the constraints of this research.

From 2006 – 2010, average income in New Brunswick rose by 8.69%, giving the province the eighth highest income growth in Canada. The average house price

rose 23.97%, outpacing income growth by 15.28%. This result placed New Brunswick in forth of ten provinces for affordability as it relates to income and house price.

Figure 4 shows the average house price / average income for New Brunswick for periods 2006, 2008, and 2010.

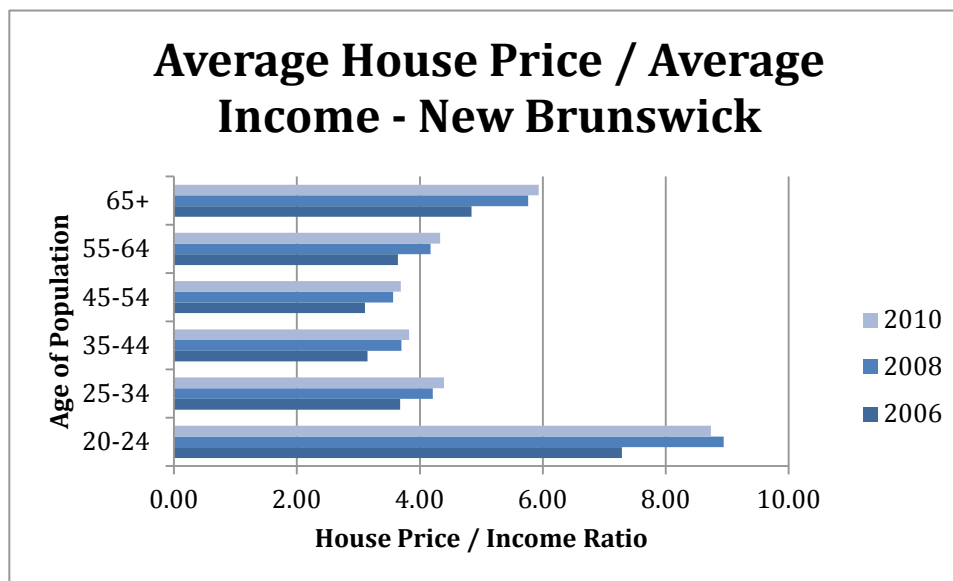


Figure 4. Average House Price / Average Income – New Brunswick

Quebec

Quebec exhibits a trend more in line with that of Newfoundland, showing continual ratio increases greater than one point for each cohort from 2006 to 2008, and 2008 to 2010. While this is the case, Quebec's price gains are less substantial than other larger provinces in Canada, and the province is regularly positioned fifth or sixth for all cohorts. In 2006, 2008, and 2010, Quebec had the lowest average house price of the four largest provinces in Canada (Quebec, Ontario, Alberta, British Columbia).

From 2006 – 2010, average income in Quebec rose by 3.38%, which was the third smallest growth in income in Canada. Average house prices in the province rose 24.46%, which created a difference of 21.07% between income growth and house price growth. With these results, Quebec placed seventh most affordable province based on the data used.

Figure 5 shows the average house price / average income for Quebec for periods 2006, 2008, and 2010.

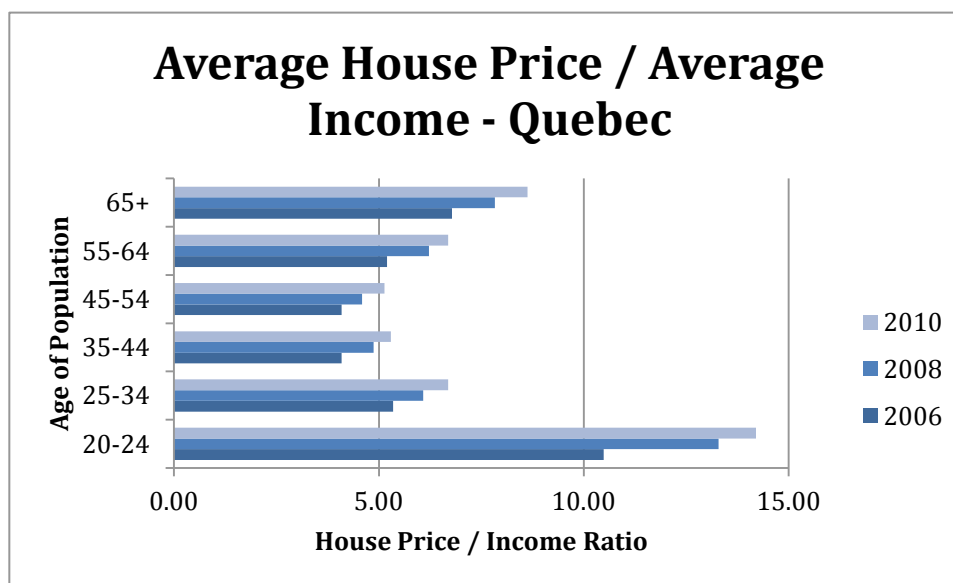


Figure 5. Average House Price / Average Income – Quebec

Ontario

Ontario's house prices are almost exclusively positioned as the ninth most affordable province in the country. House prices in Ontario in the years of study were considerably higher than the national average, sometimes \$100,000 higher.

While Ontario's ratios are high, and for the youngest cohort appear to be disastrously unaffordable (22.52 for the age cohort 20-24 in 2010), they appear to be rising at a rate lower than many other provinces. Most cohorts see ratio increases in Ontario between 2006-2008 and 2008-2010 of less than one point.

From 2006 – 2010, average income in Ontario rose by 1.44%, which was the second lowest income growth in Canada for that time period. Average house price in the province rose by 13.17%, also the second lowest growth in Canada. This is reflective of a trend in Ontario of higher than average income and house prices, but low growth in both categories. Not including the youngest cohort, Ontario has relatively average ratios, and on an overall basis, the province placed third most affordable.

Figure 6 shows the average house price / average income for Ontario for periods 2006, 2008, and 2010.

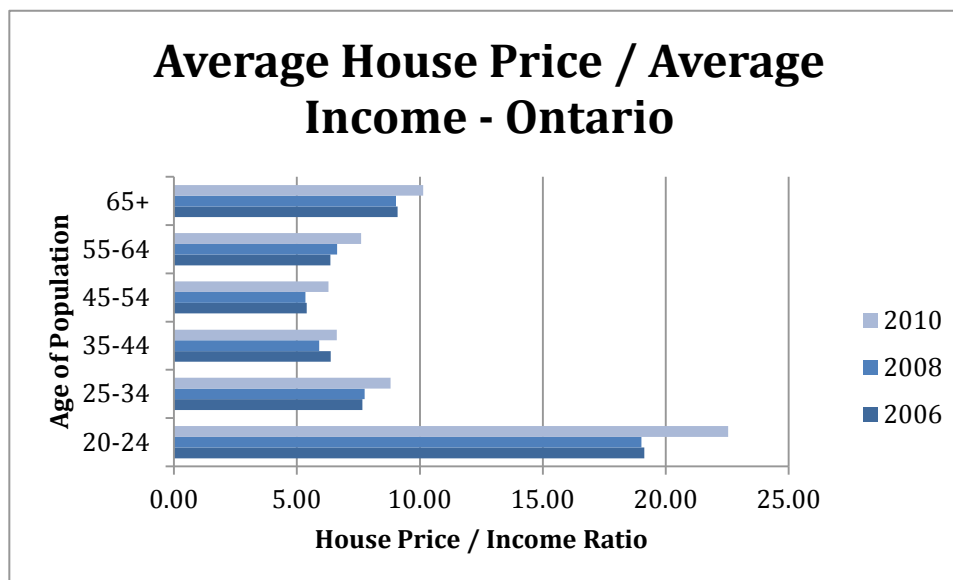


Figure 6. Average House Price / Average Income – Ontario

Manitoba

With the exception of 2006, Manitoba has the lowest average residential price of any province west of Ontario, and exhibits prices more in line with Atlantic Canada. The province tends to score similarly to Atlantic Canada as well, consistently ranking fourth or fifth on the scale, usually very close to Nova Scotia. A notable ratio spike occurred in 2010 with the youngest cohort, moving Manitoba into sixth place for affordability in the 20-24 cohort. While house prices are rising, Manitoba appears to be experiencing a reduction of average income of younger cohorts at the same time, widening the affordability gap in the province.

From 2006 – 2010, average income in Manitoba rose by 6.16%, while the average house price rose by 30.98%. House prices outpaced income growth by 24.82%, the eighth highest figure in Canada for this time period.

Figure 7 shows the average house price / average income for Manitoba for periods 2006, 2008, and 2010.

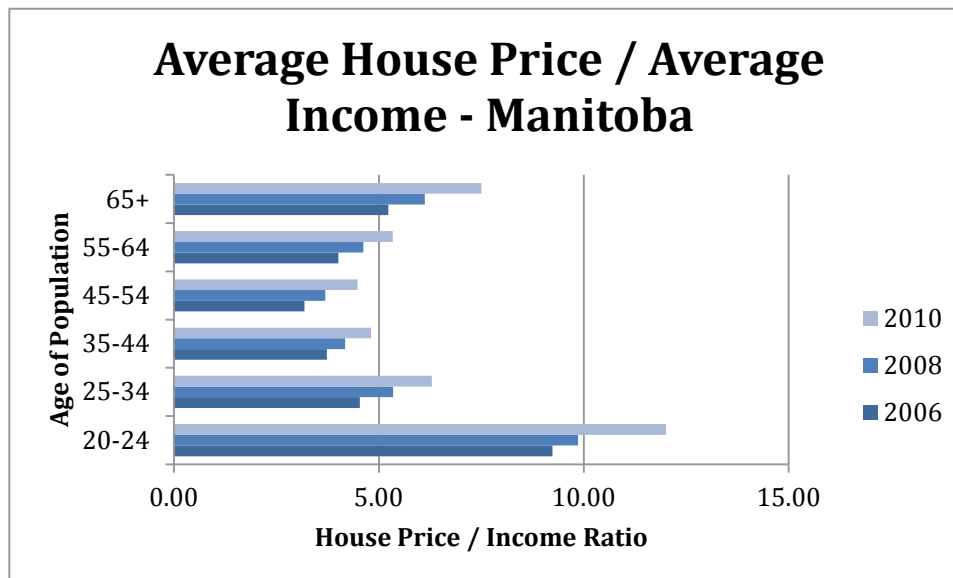


Figure 7. Average House Price / Average Income - Manitoba

Saskatchewan

Saskatchewan showed a considerable reduction in the level of affordability across all age cohorts from 2006-2010. In 2006, the province scored most affordable in five of six age cohorts, losing only the 25-34 cohort to Newfoundland.

Saskatchewan also scored the lowest ratio in the entire data set at 2.88 for the age cohort 45-54 in the year 2006. The province's results in 2006 were lower than any other province scored in any other age cohort, making it considerably more affordable than many other provinces. In 2008, Saskatchewan exhibited signs that it was losing its affordable position, with most cohorts showing a ratio increase of two full points or more. Average house prices from 2006 to 2008 rose by more than 40%, representing an increase to the average price of \$91,820. Ratios from 2008-2010 showed a continued reduction in the affordability of homes in the province. While the ratios stabilized slightly, most cohorts still saw an increase of at least half a point, and the average price rose again by approximately \$20,000. From 2006 to 2010, Saskatchewan's overall average affordability ratio rose from 3.95 to 6.28.

From 2006 – 2010, average income in Saskatchewan rose by 12.77%, which was the second highest income growth in Canada. Average house price in the province followed suit, rising 45.47% for the same time period. This figure was also the second largest growth in Canada. The difference between house price growth and income growth was 32.70%, placing the province second only to Newfoundland.

Figure 8 shows the average house price / average income for Saskatchewan for periods 2006, 2008, and 2010.

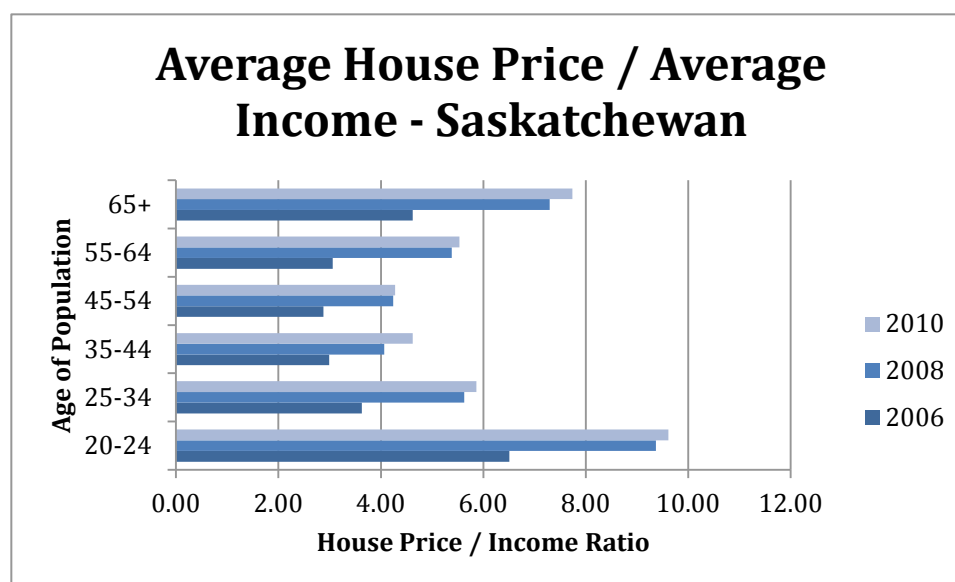


Figure 8. Average House Price / Average Income - Saskatchewan

Alberta

Based on the available data, Alberta has consistently the third most expensive house prices in Canada behind British Columbia and Ontario respectively. The average price rose from \$293,811 in 2006, to \$353,748 in 2008, and settled back slightly to \$352,301 in 2010, which was 25% higher than the 2010 national average. This positioned Alberta with similar ratios to Ontario, and in many cohorts, Alberta was more affordable than Ontario. While ratios were high, averaging almost 8 times annual income levels for individuals in 2010, they appeared to be consistent. In 2010, three of six cohorts actually had improving ratios. The affordability ratios were aided by Alberta's higher than average wages, which are reported in all age cohorts.

From 2006 – 2010, average income in Alberta rose 7.88%, and the average house price rose 16.60%. Despite having an average house price higher than the

national average, the difference between income growth and house price growth placed the province second only to Prince Edward Island in terms of affordability.

Figure 9 shows the average house price / average income for Alberta for periods 2006, 2008, and 2010.

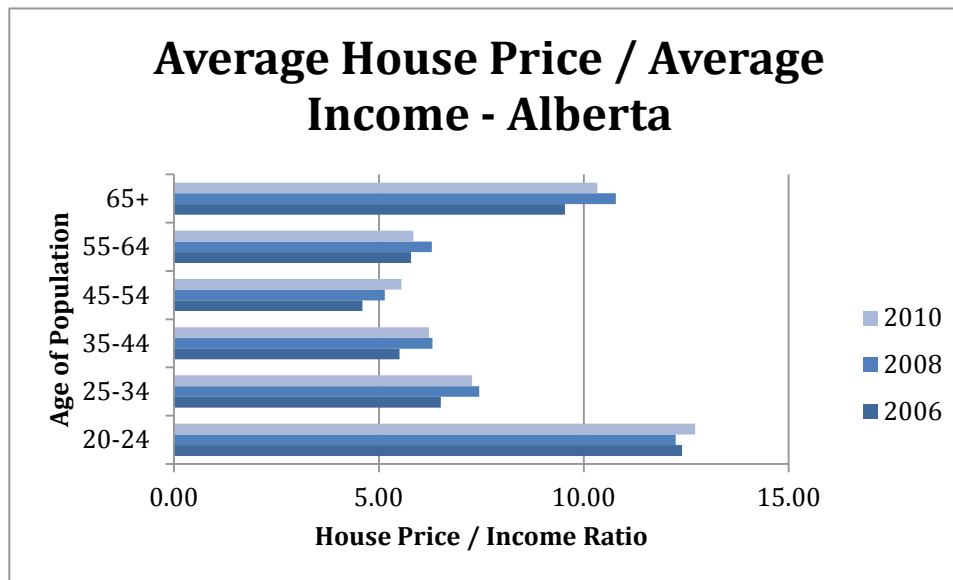


Figure 9. Average House Price / Average Income - Alberta

British Columbia

For the years studied, British Columbia (BC) had the highest average house price in the country. From 2006-2008, the average price rose from \$418,703 to \$439,119, then rose again to \$505,178 in 2010, which was 48% higher than the 2010 national average. In 2006, BC's overall average affordability ratio was calculated to be 12.37. That figure rose to 15.39 in 2010, meaning that the average house was priced 15 times higher than the average annual income of an individual. In 2010, BC had only one ratio lower than 15, and the age cohort 20-24 had a ratio

of 30.62. The results of this calculation show British Columbia real estate is dramatically unaffordable when compared with other provinces in Canada. BC's ratios experienced the greatest rise between 2008-2010, when many cohorts saw a one to three point increase. The youngest cohort saw an increase of 8.22 over this period, a rise higher than the average total ratio for many other provinces.

From 2006 – 2010, average income in BC rose by 0.27%, which was the lowest growth in Canada. The average house price in the province rose by 17.12%, which created a difference of 16.85% between income growth and house price growth, placing the province fifth out of ten.

Figure 10 shows the average house price / average income for British Columbia for periods 2006, 2008, and 2010.

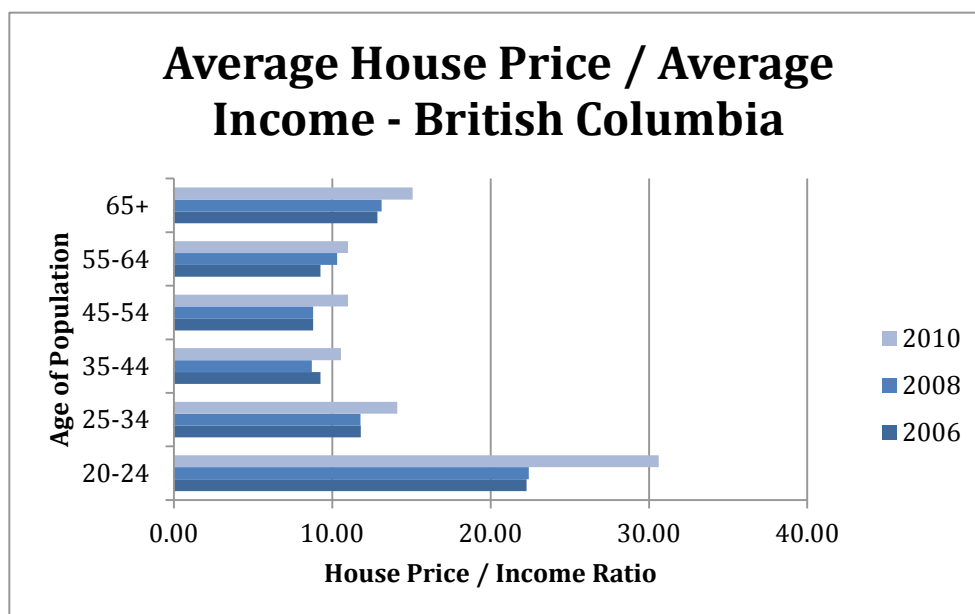


Figure 10. Average House Price / Average Income – British Columbia

Figures 11, 12, and 13 show the Average House Price /Average Income comparing the provinces by age cohort for 2006, 2008, and 2010, respectively.

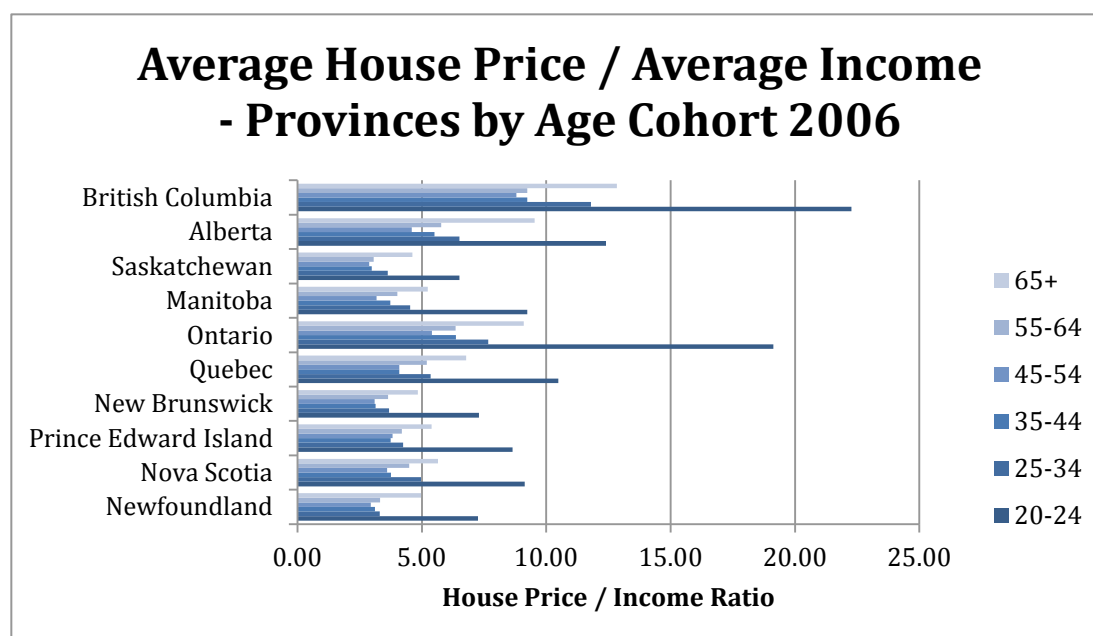


Figure 11. Average House Price / Average Income – Provinces by Age Cohort, 2006

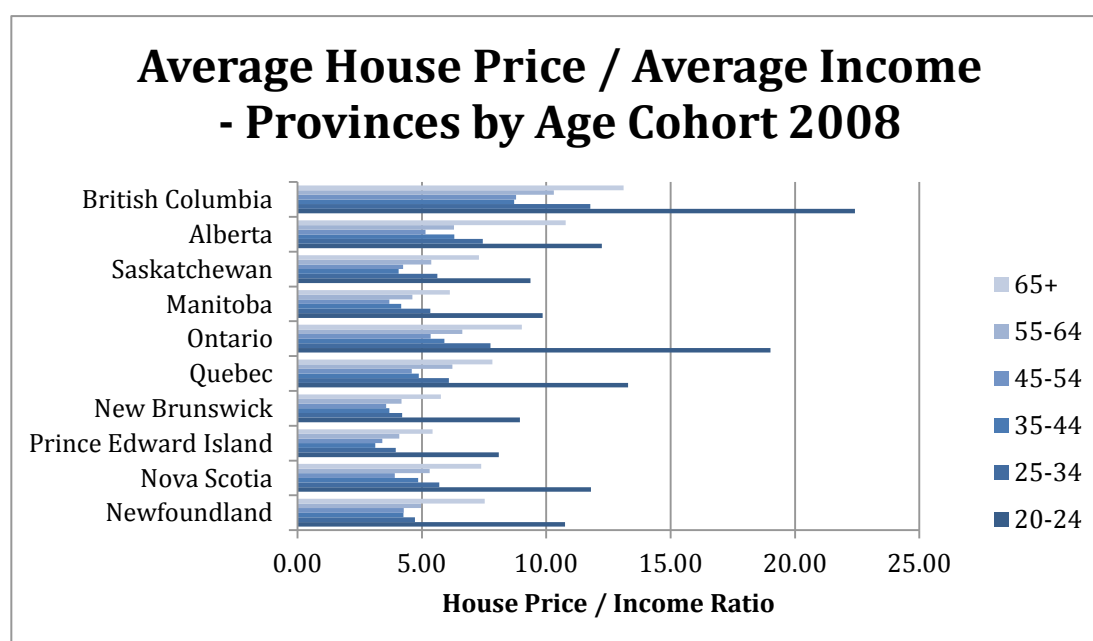


Figure 12. Average House Price / Average Income – Provinces by Age Cohort, 2008

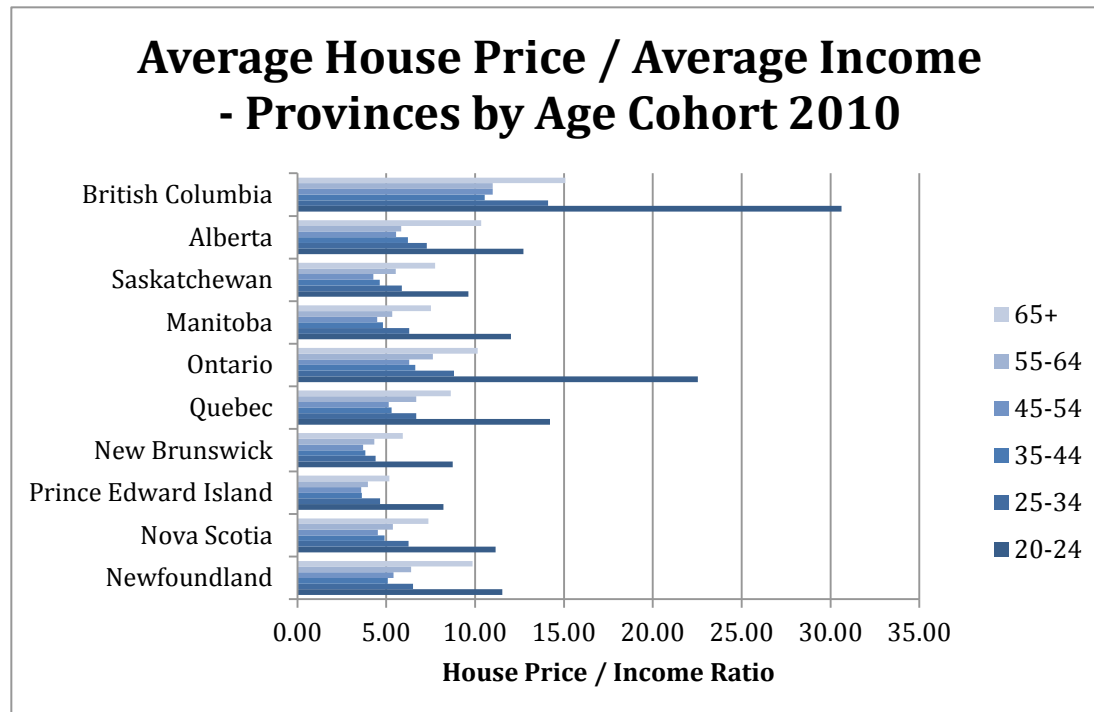


Figure 13. Average House Price / Average Income – Provinces by Age Cohort, 2010

Figure 14 shows the average house price by year, and the average income across all age cohorts for each province for the years 2006, 2008, and 2010..

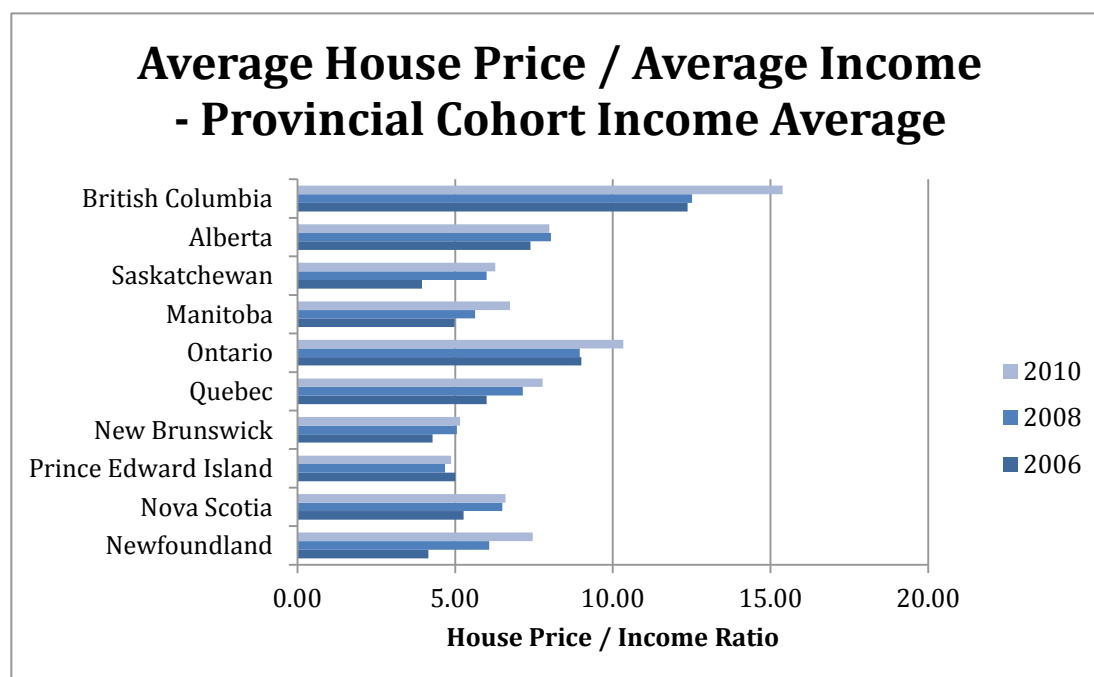


Figure 14. Average House Price / Average Income – Provincial Average, 2006, 2008, 2010

Research Question Two

The second research question sought to identify changing trends in dwelling characteristics by the structural type of dwelling. Statistics Canada used the following structural types of dwellings: Single-detached, Semi-detached, Row, Apartment / detached duplex, Apartment building greater than five storeys, Apartment building less than five storeys, Other single-attached, and Moveable. For the purpose of this research, and given a miniscule number of dwellings listed as other single-attached, this category was removed from the study. Data was compiled from the 2001, 2006, and 2011 Canadian Census results for the category Structural Type of Dwelling to show trends in dwelling structure for each province. The data displays the number of physical housing units occupied at the time of the census. While this data does not distinguish between owners versus renters, it is the most comprehensive list of housing structure available. The results of the 2001 census were compared with the 2006 census to show percentage gains or decreases in each individual housing structure category. The results of the 2006 census were then compared with the 2011 census to track the same changes. Finally, data from 2001 was compared to 2011 to give a larger picture of how dwelling characteristics may be changing in Canada. The initial desired result of this question was to allow for a correlation between a change in the structural type of dwelling, and the average affordability levels from question one. The results are broken down on a provincial level below.

Newfoundland and Labrador

During the period 2001-2011, Newfoundland and Labrador (Newfoundland) experienced substantial gains in the number of semi-detached (13.57%), detached

duplex dwellings (19.27%), and apartment buildings less than five storeys (14.73%).

Most of the growth in the abovementioned categories occurred between the 2001 census and 2006 census, with single-detached homes (6.65%) and detached duplex dwellings (8.35%), leading the province's growth between 2006-2011.

Newfoundland's results are similar to many other provinces that experienced stronger growth percentages between 2001-2006, and a general contraction in growth between 2006-2011. Between 2001-2006, single-detached housing in Newfoundland grew at a rate of 1.84%. From 2006-2011, it increased to 6.65%.

Newfoundland's strongest growth category overall was detached duplex dwellings, which saw a 19.27% increase from 2001-2011. Newfoundland saw an overall decrease in the number of apartment units in buildings over five storeys, and had the fourth highest gains in single-detached houses in Canada from 2001-2011 (8.37%).

Nova Scotia

Nova Scotia experienced a similar growth pattern to Newfoundland, with semi-detached (9.45%), detached duplex (8.28%), apartments greater than five storeys (12.36%) and apartments less than five storeys (10.22%) leading the province's growth between 2001-2006. Single-detached home growth was relatively flat at 1.01%, and row homes contracted -0.87%. Between 2006-2011, Nova Scotia's single-detached growth rose to 4.03%, which was still the lowest growth in that segment in Canada. An increase in row homes to 12.53% was the only notable change for Nova Scotia between 2006-2011. Growth remained strong in apartments greater than five storeys (14.96%); however, the province fell below five percent for

most other categories. Overall, percentage growth in the number of housing units in Nova Scotia was among the lowest in Canada for six of seven dwelling types.

Prince Edward Island

Prince Edward Island (PEI) made substantial gains between both 2001-2006, and 2006-2011, in high-density housing options. Growth occurred at a rate of 17.65% for detached duplexes in the earlier period, and was followed by strong gains in semi-detached (14.60%) and apartments greater than five storeys (11.11%). Between 2006-2011, growth in detached duplex's retracted substantially. However, PEI led Canada in the percentage-based growth of row houses (29.64%) and apartments less than five storeys (25.00%). The province saw a slight decrease in single-family detached units between 2001-2006, but finished the overall time period with growth in this category of 7.53%, placing it in fourth position out of the ten provinces for highest growth in single-detached housing.

New Brunswick

New Brunswick had modest growth when compared to other provinces in single-detached dwellings for both study periods. The province fell below the top half for increases in this category, as well as apartment buildings greater than five storeys. However, New Brunswick had above average growth in semi-detached dwellings and apartment units fewer than five storeys. The province also had the largest growth of moveable dwellings in Canada at 25.05%, well above the 11.11% national average for this category for 2001-2011. Aside from the two strong growth categories for the province, New Brunswick fell short of the average for the remaining five dwelling structure types.

Quebec

Growth in dwelling units in the province of Quebec between 2001-2006 can be attributed to a 38.08% increase in detached duplex dwellings. The province scored below the national average in four of seven categories for the same time period, including: semi-detached, row, apartments fewer than five storeys, and moveable dwellings. Quebec also experienced growth in the single-detached category of 4.72% between 2001-2006, when the national average was -0.80%. This growth, coupled with a further 7.78% growth in single-detached between 2006-2011, gave the province the second highest growth in the single-detached category in Canada from 2001-2011. Growth in Quebec was not always positive; there were four categories across the data collection period where Quebec had the lowest growth in Canada. Between 2001-2006, Quebec had the lowest growth in row housing and apartments with fewer than five storeys, a category which the province maintained the lowest growth position for the entire period of study.

Ontario

The number of housing units in Ontario grew between 2001-2011 at rates substantially higher than the national average for higher density dwelling types. The province experienced minor gains in single-detached housing ownership, rising slightly higher than the national average between 2001-2006, and slightly under the average in 2006-2011 (2.28% and 7.53% respectively). Housing gains were made in row dwellings, detached duplexes, and apartments both with greater than and fewer than five storeys. The province was second in growth of row units with positive growth of 25.90%, second in growth of detached duplexes with 44.89%, and second

in growth of apartment units under five storeys with 19.66%. In six of seven categories, Ontario grew above the national average, with semi-detached dwellings being the only shortfall from 2001-2011.

Manitoba

Manitoba had the lowest growth numbers of any province outside of Atlantic Canada, and in 2001-2006 actually contracted the number of occupied single-detached, row, and moveable dwellings. Throughout the entire time period of study (2001-2011), Manitoba only scored above the national average in the growth of moveable dwellings. Growth between 2006-2011 created some positive results for Manitoba. The province's rate of growth in single detached was the third highest in the country, while numbers of apartments and detached duplexes dropped in this period. For the total period of 2001-2011, Manitoba had the lowest growth of detached duplexes in Canada, the second lowest of apartments greater than five storeys, and third lowest of apartments less than five storeys. Manitoba's growth appeared to be based on the more traditional dwelling types of single-detached and semi-detached.

Saskatchewan

Growth from 2001-2006 in Saskatchewan was driven by multi-unit dwelling options. Occupied semi-detached dwellings showed a 6.56% increase, row housing rose by 16.08%, which was the largest increase in the country, detached duplexes rose by 15.08%, and apartments with fewer than five storeys rose by 8.78%. While these categories posted strong growth, Saskatchewan also experienced the largest decline in occupied single family homes in Canada for the same time period, -

11.44%, as well as the second largest decline in moveable dwellings, -11.15%. Between 2006-2011, Saskatchewan rose from posting the largest decline in single-detached dwellings to post the largest gain at 14.48%, well above the national average of 8.56% for this category. Growth remained strong in semi-detached dwellings (10.63%) and row dwellings (11.73%). Apartment categories and detached duplexes all slowed considerably between 2006-2011. Saskatchewan finished the 2001-2011 period with only one dwelling category, semi-detached dwellings, higher than the national average. The province also posted the largest decrease in occupied moveable dwellings in Canada, with a negative growth of -11.15% from 2001-2011.

Alberta

Alberta consistently recorded strong housing numbers, with growth in almost every category. Most notably, the province led the country in single-detached dwellings for both periods: 2001-2006 and 2006-2011. At the end of the ten-year study period, Alberta increased occupied single-detached dwellings by 18.69% when the national average was 7.88%. Other first place finishes included semi-detached units, which increased by 32.60% against a 15.57% national average, and apartments with fewer than five storeys, which increased by 24.43% against a 15.11% national average. Alberta beat the national average in all seven dwelling categories, representing strong growth from all aspects of the housing market.

British Columbia

Canada's most expensive province to buy a house in led the country between 2001-2006 in the growth of both detached duplex dwellings, and apartments with greater than five storeys. The province posted above average gains in apartments with fewer than five storeys, and row houses. British Columbia (BC) missed the national average of 8.89% in semi-detached dwellings for this time period, and posted the second largest contraction in occupied single-detached dwellings in Canada. Between 2001-2006, occupied single-detached dwellings in BC was reduced by -8.40%. Gains in this category of 7.25% between 2006-2011 would not make up the losses of the previous period. BC concluded the ten year study period with the lowest growth in the single-detached category in Canada, with negative growth of -0.53%. Meanwhile, the province led the country in growth of detached duplexes, increasing the number of occupied units by 49.35% from 2001-2011. With the exception of single detached dwellings, BC generally beat the national average in each housing category.

Figure 15 shows the percentage change in dwelling type for each province as a percentage for the period 2001-2011.

2001 - 2011 Percentage Change Per Dwelling Type by Province

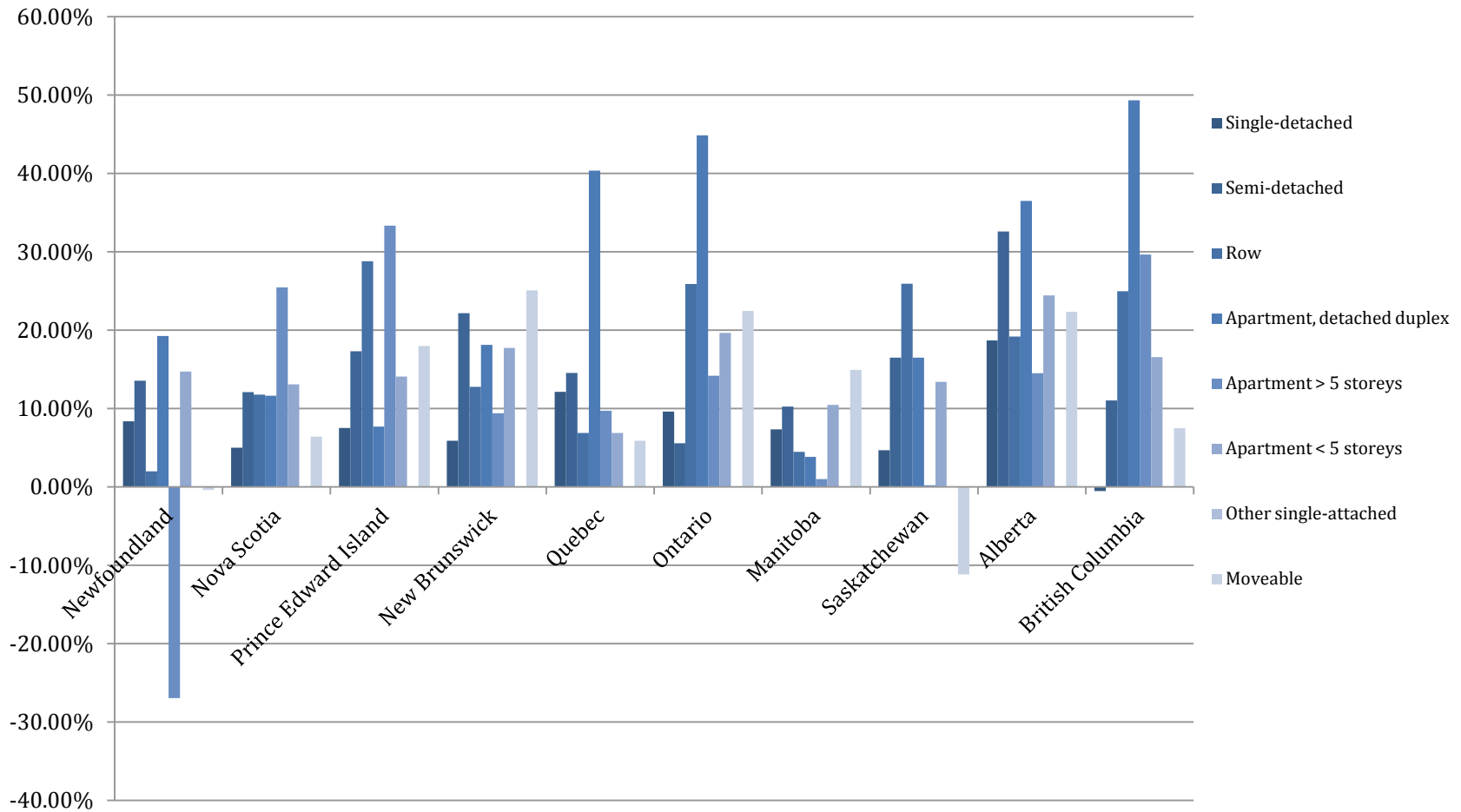


Figure 15. 2001-2011 Percentage Change Per Dwelling Type by Province

Research Question Three

The third research question sought to estimate the future of the housing market by evaluating a period in history where many economic conditions were similar to present day. Statistics Canada research showed that homeownership rates have been on the rise overall since 1981, yet when age cohorts are examined individually, a different picture emerged. For this question, the economic conditions that led to a reduction in homeownership for younger age cohorts between 1981 and 1986 were examined, and applied to recent data to estimate whether or not a similar pattern may be emerging.

The primary factors that influence homeownership are the cost of owning versus renting, household income, borrowing constraints, housing as an investment, and household demographics. From 1981-1986, generally speaking, the cost of owning outpaced increases in income, especially for younger cohorts. House prices rose, the cost of borrowing from financial institutions was higher, young people were staying home longer to pay off their education and save for a down payment, and a significant pattern in family structure, that of less children per family, was emerging. Following 1986, the economy appeared to carry homeownership rates, which rose significantly for some cohorts from 1986-2006. Gains in ownership heavily favored higher income brackets, while the national still average rose overall (Brown & Lafrance, 2013). Some of the major factors affecting homeownership will be discussed below as they pertain to today's younger cohorts.

Household Income

Household income is an important factor determining homeownership.

While it appears simple, the issue of household income is tied to trends in family structure. With many young people delaying the formation of a family, single individuals are continually increasing in the housing market. However, a single individual is more likely to have a lower household income than two people sharing a home. This delay has been evident since the early 1980's, and the income aspect of is estimated partly responsible for a reduction in homeownership rates among younger cohorts from 1981 to 1986. To estimate what role income could have for current younger cohorts, the average individual income was examined across three time periods, 2006, 2008, and 2010. Income levels across each age cohort rose on average 5.14% between 2006 and 2008, with the cohort 35-44 experiencing the largest gains at 8.12%. Young people during this period had average income increases higher than 5%. Between 2008 and 2010, increases in income levels reduced significantly to average 1.24% across all age cohorts. Individuals aged 25-34 experienced a reduction in average income of -0.89% for this period. Gains were miniscule for those aged 35-44 at 0.57%, and were negative for those 45-54 at -1.80%. Overall, it would appear there was a significant reduction in the increase of average income between 2001-2010, with the key home buying cohort of those aged 25-34 experiencing a reduction in average incomes.

House Price

House price is another major determining factor of homeownership, more specifically, the cost of owning versus renting. When the housing market is in equilibrium, it would cost the same to own or rent a dwelling. Periods of significant price increases tend to result in a reduction of home ownership, especially for

younger cohorts, who have had limited time to save for a down payment.

The average house price in Canada rose 15.44% from 2006-2008, outpacing the average increase in income of 5.14%. From 2008-2010, the average house price rose a further 10.29%, significantly outpacing the rise in average income of 1.24%. The trend that appeared was one of an increasing gap between income and house price, making affordability, especially for younger cohorts, a growing problem.

Figures 16 and 17 show the change to average annual individual income compared with the change in average house price for each province for the periods 2006-2008, and 2008-2010.

Change to Average Annual Individual Income & Average House Price, 2006-2008

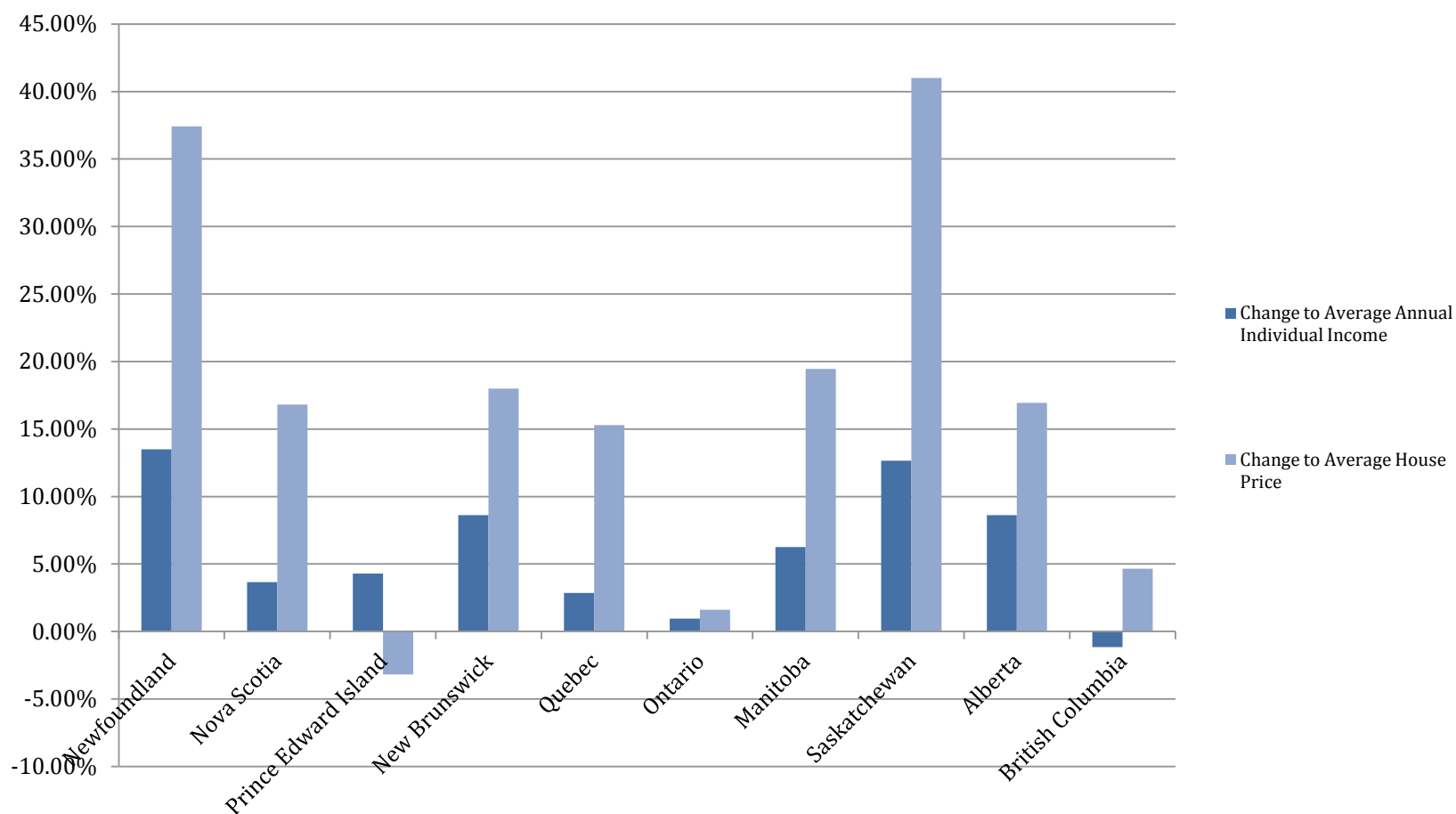


Figure 16. Change to Average Individual Income and Average House Price, 2006-2008

Change to Average Annual Individual Income & Average House Price, 2008-2010

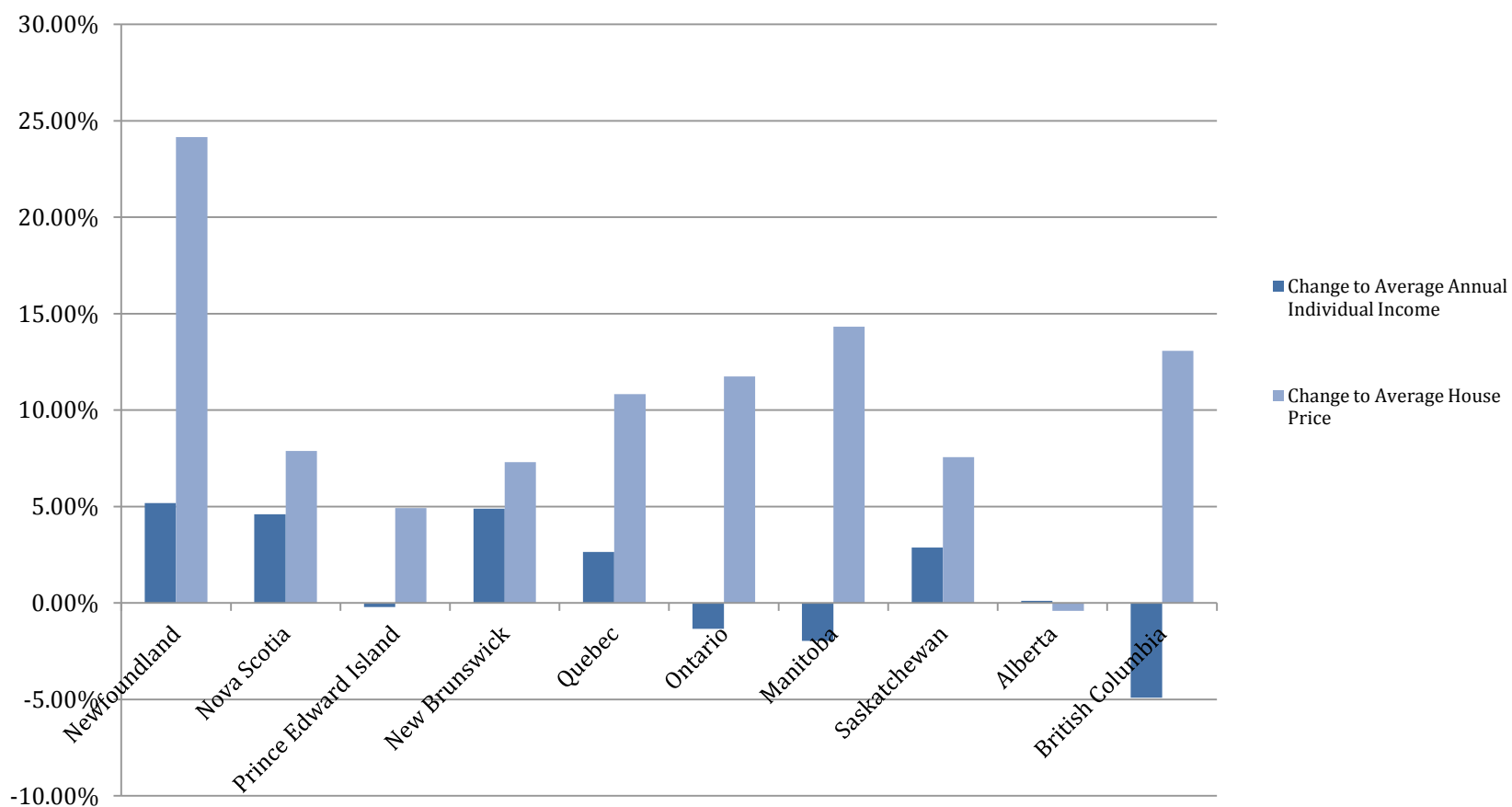


Figure 17. Change to Average Individual Income and Average House Price, 2008-2010

Family Structure

In 1981, when homeownership rates began to decline for the younger age cohorts, Statistics Canada noted changes in the family structure of Canadians had also become evident. All other implications equal, the agency estimated this change had the largest impact on homeownership rates of younger cohorts from 1981-1986, and especially in lower income quintiles. Changes that Statistics Canada showed are continuing to impact the structure of Canadian families including: a decreasing number of children per family, a decreasing number of married couples, and an increasing number of people living alone. Historically, the decision to have a family has been the largest determining factor for home ownership (Changing Patterns in Canadian Homeownership, Statistics Canada, 2006).

The years 2006, 2008, and 2010 were studied to determine if the trend of families having fewer children occurred during this time frame. Statistics Canada data showed the number of families in Canada divided into the categories: no children, one child, two children, or three or more children. These numbers are broken out to show each category being either couple families, or lone-parent families. The three years pertinent to this study were examined to determine trends in the growth or decline of the categories.

First, it was observed that the fastest growing category between 2006 and 2008 was couple families with no children, growing at a rate of 4.83%. Couples with one child increased by 0.44%, with two children by 0.74%, and with three or more children by 0.61%. The growth of couple families with no children was significantly higher than the growth in any other category, or of the other three categories

combined. During this time, the average family size of couple families was three. For lone-parent families between 2006 and 2008, the numbers showed a decreasing trend. Lone-parent families with one child decreased by -0.33%, with two children by -1.09%, and with three or more children by -0.56%. The average family size for lone-parent families from 2006-2008 was two and a half.

From 2008-2010 the trend for couple families appeared to continue. Growth in the category of couple families with no children was 3.42%, while growth in one child, two children, and three or more children was 0.88%, 0.53%, and 0.37%, respectively. The average family size remained three people for couple families. Growth was positive for the three categories of lone-parent families, with 1.62% growth in lone-parent families with one child, 0.34% in families with two children, and 2.01% in families with three or more children. The average family size remained at two and a half. Further influencing the change in family structure is the fact that people living alone continued to be one of the faster growing categories. Statistics Canada has noted this trend is still present with the release of 2011 census results.

Percentage Changes to the Number of Children Per Family - 2006-2008, 2008-2010

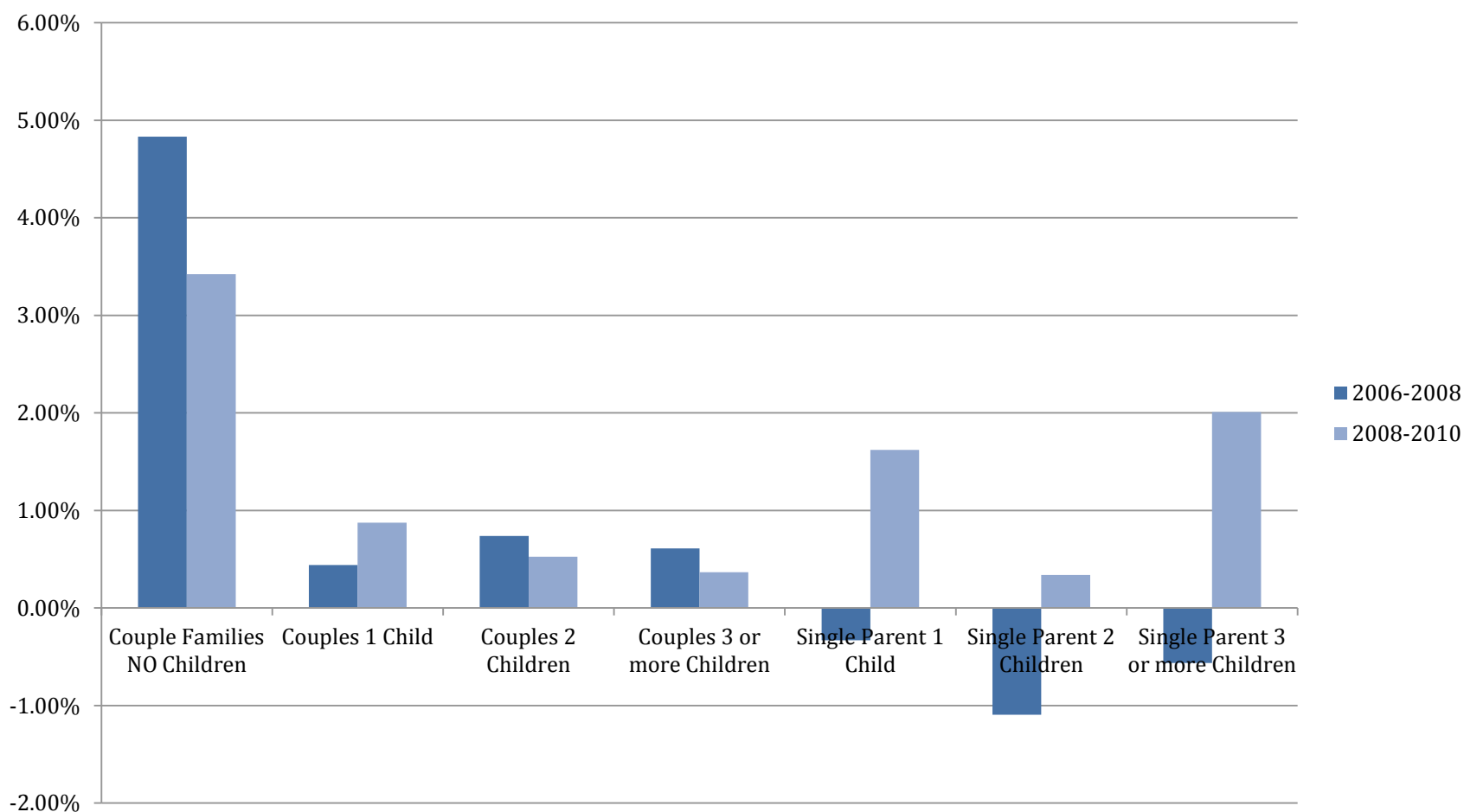


Figure 18. Percentage Change to the Number of Children Per Family – 2006-2008, 2008-2010

CONCLUSION & RECOMMENDATIONS

The original intent of this study, and its eventual conclusions, are considerably different from one another. The replicated study by Myers and Ryu was a passionate plea for jurisdictions to critically evaluate programs to assist the housing market through a significant impending change. This change involves the retirement and removal from the housing market of the largest generation present in today's population. Confirming the need for action in this area was the original intent of this study. However, what resulted is an evaluation of the market not from the perspective of the retiring baby boomer, but from that of the younger generations. While the questions are different, similar findings exist between both this study and the work of Myers and Ryu.

Primarily, this study shows a dramatic change in the affordability of housing for younger generations in Canada, with results in certain provinces much more severe than others. What was perhaps most alarming, however, is that the rate of affordability appears to be changing most significantly in provinces within which it was least expected to be occurring. Results indicate that provinces like Newfoundland, Saskatchewan, and Manitoba, have experienced price changes that when evaluated against income levels, are more severe to the housing market than changes in Alberta, Ontario, and British Columbia. The trend that emerged out of the larger, more expensive provinces was one of stability; although prices are high, they appear, when compared with income levels, to be relatively predictable across the years studied. Provinces experiencing stability in the affordability level of housing appear to be Prince Edward Island, New Brunswick, and Nova Scotia. This is perhaps

reflective of a traditionally delayed market in these provinces, where growth and decline occur at a slower rate than the larger provinces. While preconceived notions suggested the British Columbia would be a province with radical results, at the end of the study, it was Newfoundland that stood out as a province that has undergone significant change in the affordability of housing.

The gap between income levels of younger generations and the average resale house price has reached a significant point in many provinces. This is where British Columbia stands out as a province facing a serious issue. In fact, BC served as an important province of study for this document, as the trends exhibited by it may be future issues for other provinces. While the average house price in BC was 48% higher than the national average in 2010, it was observed that the number of single detached dwellings dropped -0.53% between 2001 and 2011. The correlation between these findings suggests that with an average house price significantly higher than the national average, single-detached homeownership may begin to fall decline. Should this trend continue with the results of the next Canadian census, a pattern of decreasing single-detached home ownership would have spanned more than 10 years in British Columbia. Ontario and Alberta may wish to take note of the possible implications, such as a reduction in single-detached units, given that these provinces had house prices significantly higher than the national average for the entire period of study. However, it is the provinces where change has come very quickly, like Saskatchewan and Newfoundland, that may wish to take note of the long-term implications of having an overpriced market. Having a significantly overpriced market could facilitate a difficult transition for these markets, perhaps

featuring a decline in single-detached housing, and potential declines in home-ownership.

Furthermore, the research compiled in this document shows signs of continued change in the family structure of the Canadian population, a change characterized by a shift away from the traditionally defined view of the family unit. Growth is strongest in the category of couples with no children, and single people living alone. It has recently been suggested that it is the single female market that is driving changes in the housing industry, as they are one of the largest groups of buyers in today's market (McGinn, 2013). These changes continue to impact the traditional housing unit as well. As noted through the findings of this study, single-detached dwellings were among the slowest growing dwelling categories in Canada.

The trend of house prices rising at annualized rates significantly higher than income levels was observed. However, this information may be of greatest importance when the changing future dynamic of the population is examined. With the youngest of the baby boom generation set to turn 65 by 2030, the population and housing market of Canada will undergo significant changes above and beyond price. While no agency in Canada records the age of buyers and sellers, this would allow the early diagnoses of a change to the housing market.

Given the importance of tracking activity in the real estate market, it is surprising that at no point in history was a decision made to record the age of buyers and sellers. This data, which could be as simple as year of birth, would serve an incredible multifaceted purpose. First, it would serve to educate developers on trends in the industry, thus, in theory, preventing an over-supply of houses in areas

where demand lacks. Secondly, this data would be beneficial to jurisdictional land use planners, as they could track growth and decline in not just primary population numbers, but in the market volume of activity by age cohort. This could ultimately influence the way provinces and cities grow. Finally, real estate agents could use age-related sales data to target migrants and immigrants destined for specific regions by identifying areas of strong sales growth per age cohort. This lack of recorded information may be associated with the rather traditional lifestyle many baby boomers, the drivers of the housing market, had. Generally speaking, the family and employment patterns of boomers was much more traditional than today's younger generations. However, as we begin a period of non-immigrant population decline, and a change in the family structure, it is important that the age of buyers and sellers is recorded to allow for housing need projections.

While this study was unable to forecast a specific period in time that boomers may begin to sell more purchase, it does show that the conditions are not favorable in many provinces in Canada for younger generations to absorb the housing stock left behind by exiting boomers. Therefore, the primary concepts discussed by Myers and Ryu (2007), of a flooding of the market of single-family homes for which no buyers exist, may still be destined to impact Canada.

Should this occur, information regarding income, house price, and family structure will be important for provincial governments. It will allow them to evaluate younger generations and their ability to absorb housing on a localized level. Understanding the market from the eyes of younger cohorts may allow for programs and policies to be developed assisting and encouraging homeownership,

and especially first-time home ownership. If, for example, a province recognizes the future impossibility of younger cohorts to buy a home, incentives could be developed to ensure younger people can afford to stay. Policies of this nature are not new, and many are currently being used by U.S. cities to encourage growth in specific districts and neighborhoods.

While the implications are most important for municipal and provincial governments, the development and real estate industry should also take note of potential changes to the housing market. Without age related sales data, developers may be missing target demographics with residential projects. By doing this, these developers may be flooding the market with product that is undesirable. Furthermore, if housing reaches a level where a majority of Canadians cannot afford it, the development industry could simply implode. While originally underestimated, the importance real estate agents have on the future of the housing market appears undeniable. Agents have served as the couriers of high prices, seeking above average return for clients in markets where supply is outpacing demand. Excessive returns have not only padded the agent's pockets, but have driven younger cohorts out of home-ownership in certain urban areas. Should real estate agents continue to seek unrealistic returns in 'hot' markets, they are potentially digging their own grave. If boomers begin to exit the market as forecasted, the younger generations will take control of it; a market which they cannot afford to buy in to. Gone will be the days of excessive returns, and real estate will return to be viewed as a manufactured product, not an investment vehicle. Agents must begin to use research when pricing dwellings for sale. Not just research of comparable

properties, but research of the future of their market.

Two main things remain to be seen. First and most important: how will the transition of baby boomers out of the housing market affect each province. This can only be hypothesized, but if this research gives an indication of the ability of younger cohorts to absorb housing inventory, certain provinces in Canada may be on the verge of a significant transformation. Secondly, it remains to be seen whether any data collection agency will begin to record the age of homebuyers and sellers. Canada is not exclusive in this informational void. Myers and Ryu's (2007) study is from the United States, where ages of buyers and sellers are also not specifically recorded. What this lack of knowledge creates is a market that can only speculate about which age cohorts will buy and sell, the rate which they will buy and sell, and what product they will seek.

Further research could examine the results of the next Canadian census to determine if the trends noted in this study are continuing or changing. Of specific importance for the development community would be to examine if dwelling characteristics continue to change with a change in family structure and continually rising house prices.

With a transition period evident, the focus should now shift to encouraging and supporting homeownership in younger generations. Strategies should also be developed to assist municipalities in continuing to provide services in distressed or declining markets. Canada has enjoyed a period of strong and sustained growth in the housing market, and whether that will continue is yet to be seen. However, one thing is clear, it is much easier to plan for expansion rather than contraction. The

challenge for planners of the future may not be dealing with growth; it may be dealing with decline.

REFERENCE

- Ashcraft, A. B., & Schuermann, T. (2008). *Understanding the securitization of subprime mortgage credit*. (Vol. 2, No. 3). Now Pub.
- Average income of recipients, 2006 census. (2013). *Statistics Canada*
- Average income of recipients, 2008 census. (2013). *Statistics Canada*
- Average income of recipients, 2010 census. (2013). *Statistics Canada*
- Average residential resale price, 2008. (2013). *Canadian Real Estate Association*
- Average residential resale price, 2010. (2013). *Canadian Real Estate Association*
- Average value of dwelling, 2006 census. (2013). *Statistics Canada*
- Baby boom and bust. (2008). *The Economist*.
- Badkar, M. (2012). Everything you need to know about Canada's housing 'bubble.' *Financial Post*
- Badkar, M., & Kawa, L. (2012). Hard or soft landing? A look at Canada's housing market from boom to.... *Financial Post*
- Boomer wealth sliced almost in half. (2009). *Point for Credit Union Research & Advice*, 8.
- Canadian housing bubble about to pop. (2012). *The Trumpet*.
- Canadian housing market: starts to slow, resales stable in 2013. (2012). *Canada Mortgage and Housing Corporation*.
- Canadian home price to income ratio, 1988-2010. (2013). *Canadian Real Estate Association, Statistics Canada, Desjardins*.
- Census indicator profile, Canada, provinces, territories, health regions (2011 boundaries) and peer groups. (2013). *Statistics Canada*.
- Changing patterns in Canadian homeownership and shelter costs, 2006 census. (2013). *Statistics Canada*.
- Couple and single parent families, number of children present, 2006 census. (2013). *Statistics Canada*

Couple and single parent families, number of children present, 2008 census. (2013). *Statistics Canada*

Couple and single parent families, number of children present, 2010 census. (2013). *Statistics Canada*

Eggert, K. (2009). The great collapse: how securitization caused the subprime meltdown. *Connecticut Law Review*, 41(4).

Generations in Canada, 2013. (2013). *Statistics Canada*

Heath, J. (2012). How house prices depend on demographics. *Financial Post*

Hopkins, A. (2012). Canada braces as housing slowdown takes hold. *Financial Post*

Income of individuals, by sex, age group and income source, 2010 constant dollars. (2013). *Statistics Canada* .

Levanon, G., Cheng, B., & Goldman, J. (2011). US Workers Delaying Retirement: What Businessess Can Learn from the Trends of Who, Where and Why. In *The Conference Board Executive Action Report* (No. 350).

Mankiw, N. G., & Weil, D. N. (1989). The baby boom, the baby bust, and the housing market. *Regional Science and Urban Ecomonics*, 19(2), 235-258.

Marr, G. (2012). Boomers warned using home sale to fund retirement could backfire. *Financial Post*

Marson, G. (2012). Pop goes the housing bubble. *The Globe and Mail*

McGinn, D. (2013). How single women – and what they want – are shaping the new housing market. *The Globe and Mail*

Myers, D., & Ryu, S. (2008). Aging baby boomers and the generational housing bubble: Foresight and mitigation of an epic transition. *Journal of the American Planning Association*, 74(1), 17-33.

Pollock, A. J. (2012). North America - after six long years, the U.S. housing market bottoms. *Housing Finance International*, 10-11.

Sichelman, L. (2008). Could another housing 'bubble' be waiting in the wings? *National Mortgage News*.

Shiller, R. J. (2007). *Understanding recent trends in house prices and home ownership* (No. w13553). National Bureau of Economic Research.

Structural type of dwelling, 2001 census. (2013). *Statistics Canada*.

Structural type of dwelling, 2006 census. (2013). *Statistics Canada*.

Structural type of dwelling, 2011 census. (2013). *Statistics Canada*.

Turcotte, M. (2007). Young people's access to home ownership. *Statistics Canada*.