

**The City of Spruce Grove
Municipal Census
2015 Demographic Report**



July 2015

The City of Spruce Grove – Municipal Census
2015 Demographic Report

Contents

1. Background 3

2. Enumeration Areas 3

 Table 1: List of Enumeration Areas 4

 Figure 1: Map of Growth in Enumeration Areas..... 4

3. Population Growth..... 5

 Figure 2: Population Growth..... 5

4. Population Distribution..... 6

 Figure 3: Age-Sex Pyramid 6

 Table 2: Select Populations by Age 7

 Table 3: Dependency Ratios..... 7

5. Households 8

 Figure 4: Average Household Size..... 8

 Figure 5: Population and Household Distribution 9

6. Property Status 9

 Figure 6: Dwelling Type..... 9

 Figure 7: Property Status 10

7. Conclusions and Lessons Learned..... 11

The City of Spruce Grove – Municipal Census 2015 Demographic Report

1. Background

Accurate population counts and up-to-date demographic information are vital for the City's strategic planning, operations and service provision. The data gathered through the census has an impact on provincial funding allocations and improves Spruce Grove's ability to plan for growth and manage programs and services. The *Municipal Government Act* provides the authority for municipalities to conduct a census, and City Policy 6,029 CM guides the frequency and administration of each census. In addition to the direction outlined in official City policy, it is advantageous for municipalities to conduct a census frequently after a population reaches 20,000 since there are financial incentives in terms of available funding to a municipality reporting incremental population increases.

The primary objective of the 2015 municipal census was to provide a reliable population count. In addition to the count, enumerators gathered data on the age and sex of residents, as well as on the type of dwelling units in the City, in order to provide additional demographic information. The count began on April 8, 2015 and concluded on May 28, 2015. Residents had the option of providing a response online, by telephone or via door-to-door enumeration. This year, 39.1% of Spruce Grove households chose to respond to the census via the online portal.

All of the information discussed in this report is taken from the 2015 census or from previous municipal censuses conducted by the City of Spruce Grove. Any data that refers to the Province of Alberta or Canada as a whole was taken from the 2011 Federal Census. The response rate for this census was 100%. A total of 12,025 households and 13,790 properties were counted for a population of 32,036. There were no statistically significant concerns with the data quality. The last municipal census was conducted in 2014, and the last federal census took place in 2011.

2. Enumeration Areas

Census enumeration areas (EAs) in 2014 had the same boundaries as in previous censuses. However, in 2015 some of the boundaries were redrawn due to population growth. Previously, there were sixteen enumeration areas, divided in order to group one or two neighborhoods together. Some of those areas had to be further divided this year in order to create manageable enumeration areas; the goal was to keep each EA under 1000 properties, while maintaining neighborhood groupings that made sense. There are now 20 EAs in Spruce Grove, as outlined in Table 1, below.

Ensuring that boundaries remain comparable over time is critical in order to study demographic changes in different areas of the community. For that reason, Administration recommended following the method for enumeration area division used by Statistics Canada. Each EA is given a number, and when the area is divided it is given a decimal. So for example, the previous EA that was labeled as area "A" is the neighborhood of Harvest Ridge. Growth in that neighborhood required a division, so the

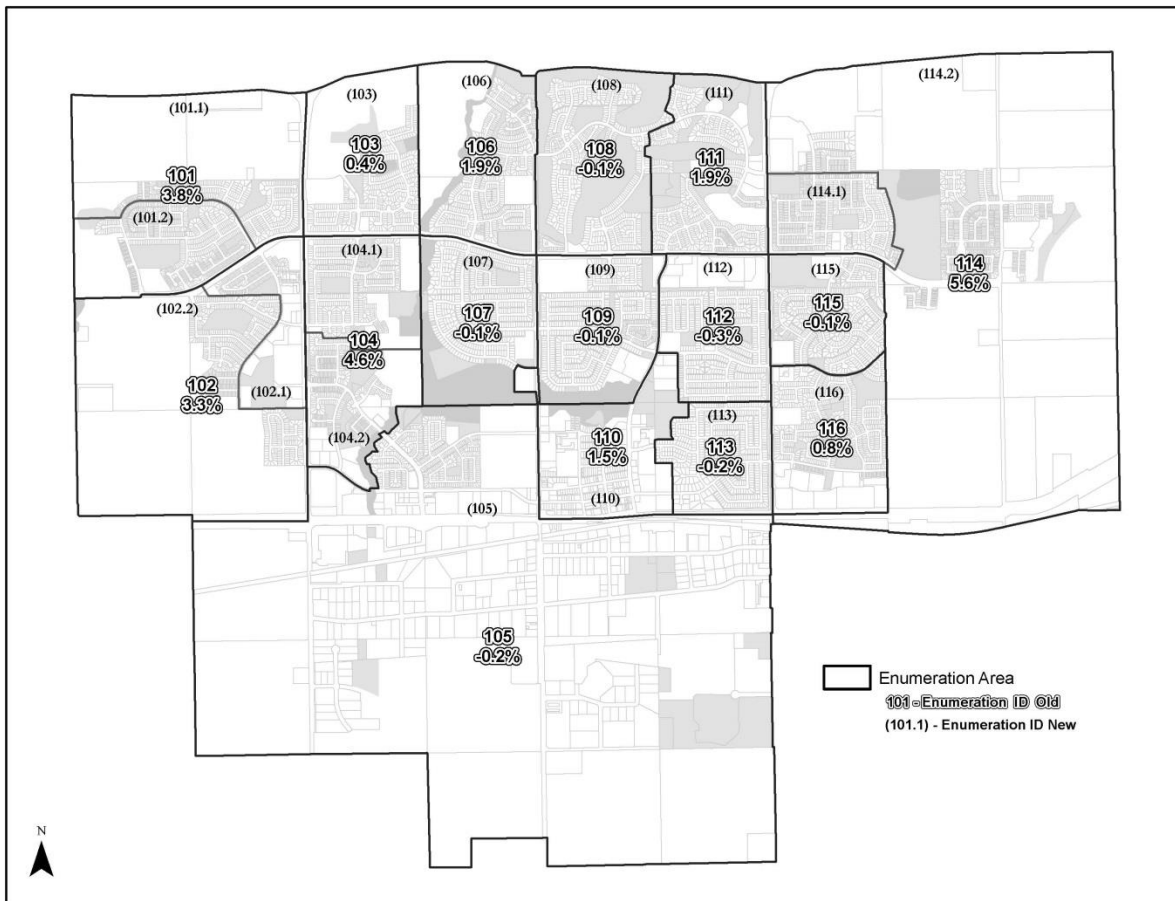
The City of Spruce Grove – Municipal Census 2015 Demographic Report

new EAs for Harvest Ridge are labeled as 101, with area 101.1 generally located to the north of Harvest Ridge Drive and area 101.2 generally located south of that roadway. The accompanying map and table show where the enumeration areas are, and list which neighborhoods are contained within each area.

Table 1: List of Enumeration Areas

101.1	Harvest Ridge (north)	108	Stoneshire, Linkside
101.2	Harvest Ridge (south)	109	City Centre
102.1	Spruce Ridge	110	Woodhaven, Woodside
102.2	Legacy Park, Springgate	111	Hilldowns, Linkside
103	Deer Park	112	Brookwood
104.1	Heatherglen	113	Broxton Park
104.2	McLaughlin	114.1	Spruce Village
105	Westgrove, Mobile City Estates	114.2	Kenton, Greenbury, Prescott
106	Aspenglen, Jesperdale	115	Grove Meadows
107	Millgrove	116	Lakewood

Figure 1: Map of Growth in Enumeration Areas



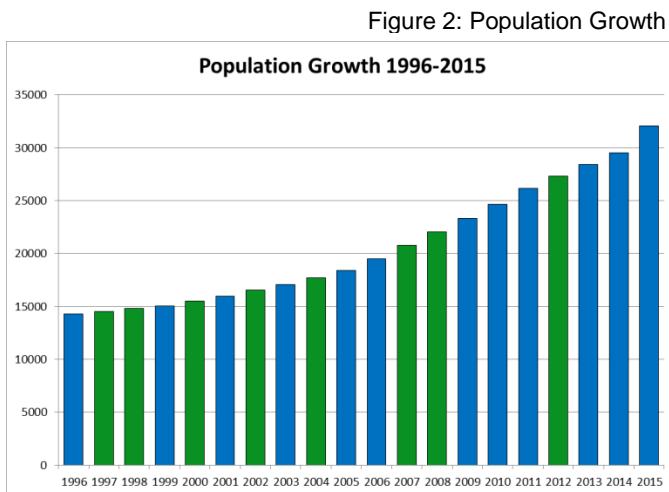
As we can see from the map above, there are several areas that are expanding rapidly where extensive development is taking place. This is the case in Spruce Ridge, Harvest Ridge, McLaughlin, Greenbury, Kenton and Prescott, which are therefore

The City of Spruce Grove – Municipal Census 2015 Demographic Report

experiencing rapid population increases. In contrast, several mature areas in the community are observing small population decreases. The areas with the most population decrease include Broxton Park, Brookside, and Westgrove/Mobile City Estates. Since none of the City's neighborhoods are experiencing a decrease in the number of dwellings, the shrinking population numbers are likely related to changes in the family cycle, whereby residences formerly providing a home for 2 or more family members become home to fewer people as children leave home, for example. The aging and elderly segment of our population who may require assisted living apart from their spouses, or those who are widowed, could provide another explanation.

3. Population Growth

The population of Spruce Grove is now 32,036, an increase of 4.6% annually since the 2011 Federal Census. This figure is slightly more than double the population count for 2001, which was 15,983. Looking at growth since 2005, the city has witnessed tremendous increases in its population, with an average annual growth rate of 5.9% for the period between 2005 and 2014. Another indicator of growth is the increase in the number of residential properties, which rose to 13,790 from 10,446 in 2010, representing an increase of about 25%. The bar graph below shows the population increase since 1996, where the years an official census count was done are indicated in blue; the green bars indicate an estimated population for a more accurate visual representation of the City's growth.



The City of Spruce Grove's annual growth has been more than robust in the past decade. The 2015 count represents an all-time high in terms of the one-year population gain of 8.5%. As we have observed from previous census counts, Spruce Grove has become a desirable community for families to move to within the Capital Region. A good quality of life and close proximity or easy access to major employment areas are attractive factors for people looking for a place to raise a family. We will also see

later that the City has a significant amount of land that is ready for construction, combined with a very low vacancy rate for the existing housing stock, indicating that the population growth is unlikely to slow in the near future, despite the recent downturn in the economy. The City must continue to plan strategically for the impacts of this extraordinary growth in terms of providing sustainable infrastructure, services and programs for its residents.

The City of Spruce Grove – Municipal Census 2015 Demographic Report

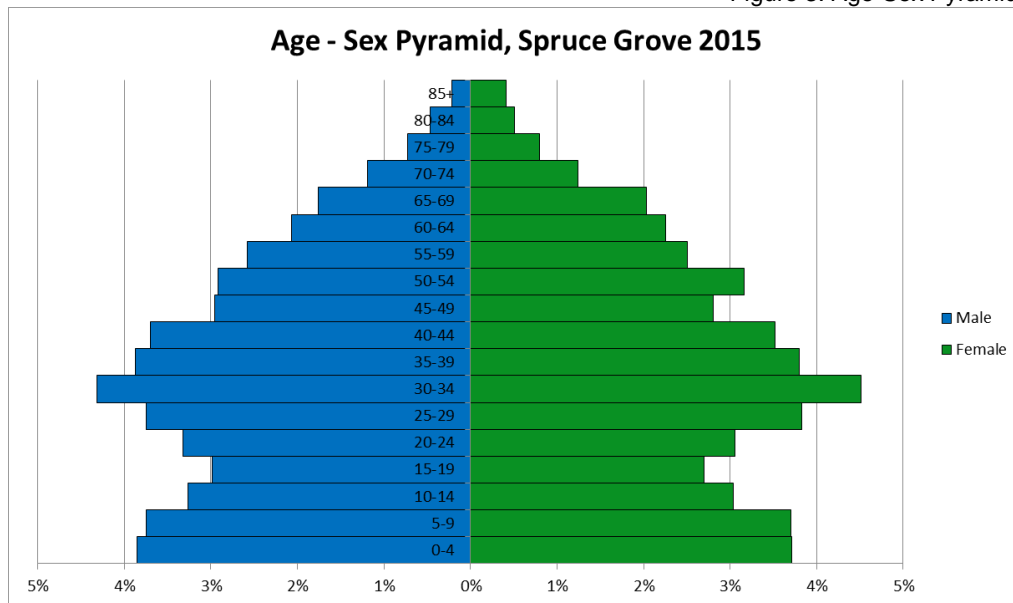
4. Population Distribution

The age-sex pyramid illustrates the population of Spruce Grove broken down to show the distribution of males and females by age group. Spruce Grove remains a family oriented community; the graph reflects this through its shape which shows peaks in the populations for adults from ages 25 to 44 and for children under age 10. For large populations in North America, the Baby Boom age cohorts (born between 1946 and 1966; aged 48 to 68) have been the most defining, but Spruce Grove’s population does not reflect their typical dominance, which confirms the importance of parent-child families for the community.

One might recall that as recently as 2005 the Baby Boom generation was a significant feature of the population of Spruce Grove, but the shift toward families has been persistent since that time. The population for Alberta as a whole mirrors this family orientation, with an additional bulge representing the Baby Boom that is not present in Spruce Grove’s population. It is likely that the economic opportunities in Alberta, rooted in resource extraction and with high demand for physical labor and technically skilled workers, have played a role in attracting a relatively young population. Communities such as Spruce Grove that have a high, family focused quality of life have attracted higher numbers of these young workers who settle in the area to raise families.

The pyramid shows us that the largest population groups are aged 30 to 34, followed closely by the 35 to 39 age group and then children aged 0 to 9. There is a relatively even distribution of males and females. In fact, there were a total of 30 more males than females counted across the entire community. This particular snapshot of Spruce Grove’s population has remained consistent over the past few census counts.

Figure 3: Age-Sex Pyramid



The following table also provides information on how significant age cohorts have changed over time in Spruce Grove. While the percentage of pre-school aged children

**The City of Spruce Grove – Municipal Census
2015 Demographic Report**

in the population rose significantly after 2005, that proportion now appears to be relatively stable (although still high). At the same time, the 30-34 cohort continues to increase steadily and the 55-59 age group which was previously in decline is now gaining incrementally. While this is a select sample of the data, it provides a good overview of the way Spruce Grove is changing over time.

Table 2: Select Populations by Age

% of Population by Age	2010	2014	2015
0-4	8.22	7.75	7.6
30-34	8.13	8.63	8.88
55-59	5.34	5.01	5.14

As part of the regular census analysis, Administration provides information on the dependency ratios for Spruce Grove. A dependency ratio measures the working aged population against the dependents in a population, or those who are not in the labor force (i.e. youths under age 15 and seniors over age 65). This is a rough indication of the economic “burden” of a population. While the ratio has only been studied over the past five years, watching it evolve over time may be useful for programming decisions in the future. The rates below are expressed as the number of dependents for every 1000 workers. In order to provide further context, here are some examples of total dependency ratios for countries around the world (*worldbank.org, 2012 ratios*):

- Ethiopia – 880
- Japan – 600
- Canada – 450
- Singapore – 360

Table 3: Dependency Ratios

Spruce Grove Dependency Ratios	2010	2014	2015
Youth Dependency Ratio	313	334	311
Old Age Dependency Ratio	119	146	136
Total Dependency Ratio	433	480	447

It is worth noting that through much of the developed, western world, the old age dependency is the higher of the two ratios. We have all heard about the upcoming rise in the old age dependency ratio due to the aging of the Baby Boom generation. There are fears that the dependency will create an undue financial burden on working aged people. In addition, we are likely to see new programs emerge to address the societal changes caused by having such a large group of elderly people, in areas of public transportation and housing, for example.

Examining the ratios for Spruce Grove, we can see that the reverse is true, and the youth dependency is more than double the old age dependency, although as recently as 2010 the youth dependency was triple the old age dependency. Spruce Grove may find that the needs of the community are very different in the future than the needs for Canada as a whole as far as services and programs if these demographic trends continue.

The City of Spruce Grove – Municipal Census 2015 Demographic Report

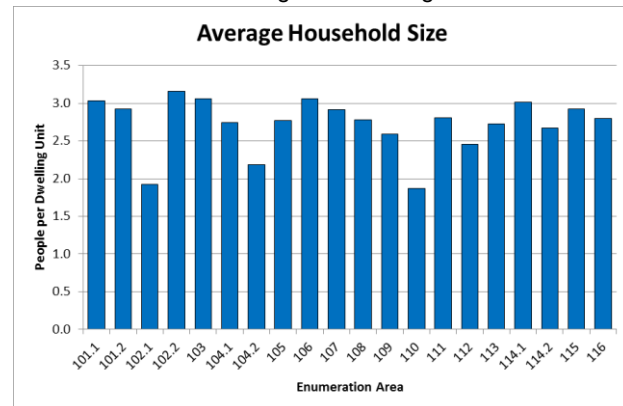
Most interesting in this set of information is that the dependency ratios are actually shrinking. Both the youth and old age ratios have decreased since 2014. This means that the greatest population increases for Spruce Grove over the past year have actually occurred for working aged residents. As mentioned above, these patterns must be observed over a longer period before they are determined to be trends, but the low dependency ratio overall is positive for the community.

5. Households

In the 2015 census, there are two different terms used to describe a lot subdivided for housing development. The first term is “property,” which refers to any lot, and may or may not be developed. A property may have a vacant or occupied dwelling located on it, but it may also be in the middle of construction, or may simply be undeveloped. The second term is “household,” and is used to describe an existing dwelling unit combined with the people who live in that unit. Households are generally used to describe families, though of course people who share the same home are not always family, so the association between household and family should be explored cautiously.

The household size in the City of Spruce Grove is a count of the number of people living in each dwelling unit. In 2010, the average household size was 2.59 people per dwelling unit, and increased to 2.7 in 2014. In 2015 the average has fallen slightly to 2.66 people per dwelling; together these figures represent a stable household size. In the 2011 Canadian census, the average household size for Alberta was 2.4 and it was 2.5 for all of Canada.

Figure 4: Average Household Size



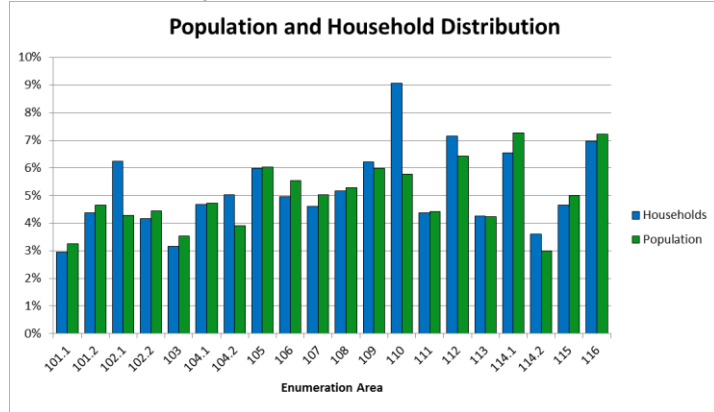
In general, the averages for household size in Spruce Grove likely relate to the increased mix of housing types within the community. Figure 4 at right showing household sizes by enumeration area corroborates that theory since the larger household size averages occur in neighborhoods that are primarily single detached dwellings with a limited mix of medium and high density development, such as Deer Park (103) and Jesperdale/Creekside (106). The northern part of Harvest Ridge (101.1) and Legacy Park/Springgate (102.2) also fits into this category. The areas with the lowest household sizes are those with a greater mix of housing types, such as City Centre (110), McLaughlin (104.2) which contains apartments, seniors housing, and a mix of low to medium density housing, and the higher density portion of Spruce Ridge (102.1).

Figure 5, below, has a comparison between the percentage of the population counted in each enumeration area, and the percentage of dwelling units. In general, the neighborhoods that show a higher percentage of households than people have greater

The City of Spruce Grove – Municipal Census 2015 Demographic Report

diversity in the types of housing available. This includes the east portion of Spruce Ridge, and City Centre (areas 102.1 and 110 respectively). Those neighborhoods with proportionately more people than households are more homogeneous in terms of housing stock, including Aspenglen, Lakewood and Greystone (areas 106, 115 and 116). Spruce Village (114.1) is a bit of an exception since there is a lot of mixed single and semi-detached product in that neighborhood. It is possible that the proximity to Jubilee Park and middle schools are factors attracting larger families or keeping them in the area rather than moving to other neighborhoods.

Figure 5: Population and Household Distribution



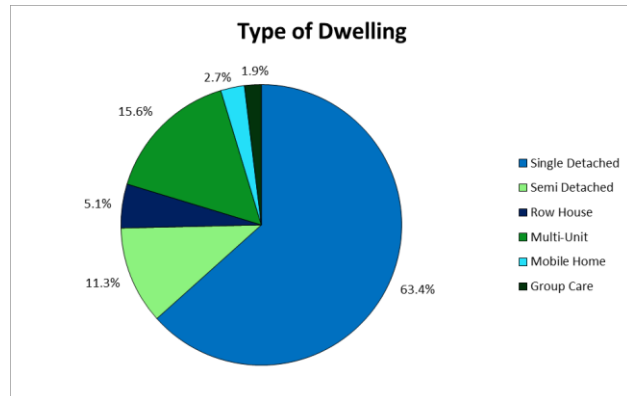
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6. Property Status

Part of the enumeration process involves collecting information on the type of dwelling unit at each property in Spruce Grove. While the City technically has this information available, it is not in a database that allows us to query the composition of our housing stock. Through the enumeration and a careful verification of the data, the pie chart shown below provides an excellent snapshot of the City’s dwellings.

In order to make better use of this data moving forward, Administration would like to see the information built into a layer in the City’s Geographic Information System (GIS). In the meantime, the information from last year’s census was used with only new dwelling units populated through the enumeration process. Even with this approach, there was a large amount of data that was entered incorrectly and the information on over 600 dwelling units had to be corrected at the outset of the data verification process. Ideally, this information will be populated into the system in the future through the building permit or occupancy process. Until that relationship is developed within the various software programs, this portion of the data collection remains problematic and time consuming.

Figure 6: Dwelling Type



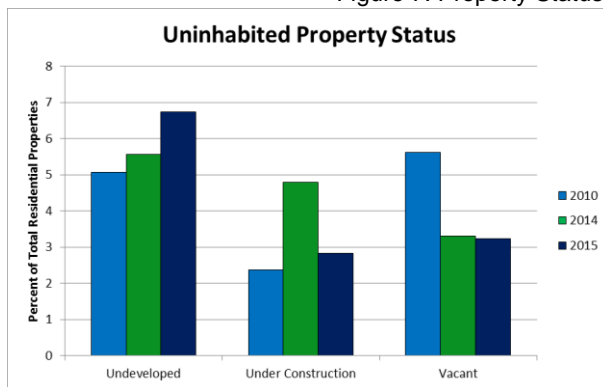
We can see that, as expected, single detached dwellings make up around two-thirds of the City’s housing. However, this figure has dropped to 63.4% from 65.1% in 2014. The number of semi-detached dwellings rose by 1% during that same period, and a 0.7% increase in multi-unit dwellings also took place. As Spruce Grove continues to see very high numbers of permits for

The City of Spruce Grove – Municipal Census 2015 Demographic Report

new dwellings, it will be interesting to see if the housing stock in the community continues to diversify in the years ahead. It is possible that the changes to housing prices that occurred about ten years ago are now manifesting in different consumer preferences. A diverse housing mix is also easier to achieve when developers offer a range of options, which is more prevalent now than in the past. Diversity in housing leads to an inclusive community that offers a place for people of all stages of life and family needs.

Figure 7 shows the status of uninhabited properties within the community. There are three categories: undeveloped, under construction and vacant. The first category, undeveloped, refers to properties that are subdivided and have a civic address, but do not have any housing developed on them. Properties listed as under construction are those that are in the process of being built, but do not yet have occupancy certificates issued that would allow for residents to move in. Finally, vacant refers not to a traditional vacancy rate, but rather the number of existing homes that do not have anybody living in them, likely due to a lag in time between people moving out of a home and new residents moving in.

Figure 7: Property Status



As we can see, the number of subdivided lots awaiting development continues to rise as a proportion of the total residential properties since 2010, now coming close to 7% of all residential lots in the City. The amount of housing under construction has fallen to just under 3% of the total land inventory, and vacant dwellings are just above 3%.

To complement this data, some additional context on construction in 2015 from January to the end of April was obtained from the Canadian Mortgage and Housing Corporation (CMHC; *Housing Now*, May 2015) and the City's own building permit statistics. In the period from January 1 to April 30, 90 building permits for single detached dwellings have been obtained (compared to 69 over the same period in 2014), 127 single detached dwellings have completed construction (compared to 104 in 2014), and 123 single detached dwellings have been absorbed, meaning that completed homes have been purchased and have residents living there (compared to 88 in 2014).

The increase in absorption, in particular, points to a potential reason for the very high population increase over the past year. Combined with the high percentage of properties that are undeveloped, the data indicates that the residential housing market in Spruce Grove is extremely hot, and the City should expect very rapid population growth to continue in the short term. While this may bring in additional provincial funding, the trade-off is the strain this growth will place on City Administration to continue providing the same high level of services to a rapidly expanding City and a much larger population base.

**The City of Spruce Grove – Municipal Census
2015 Demographic Report**

7. Conclusions and Lessons Learned

Conducting a municipal census is a complex and resource intensive process. It is essential to continually refine the process each time to enhance data quality and improve participation. The 2015 municipal census was very successful, with a 100% response rate and a high degree of confidence in the data collected. Once again, the hiring of a designated Census Coordinator was critical to ensure that adequate oversight was provided for the enumeration staff and that quality control of the data was consistent. A detailed report on lessons learned during the enumeration process was provided to Administration for process refinement going forward.

One surprising result was that the online response rate actually declined slightly compared to last year. The online response was 39.1%, but in 2014 it was 39.8%. With only two years for comparison so far, it is too early to say that the Internet generated responses will not grow. However, Administration expected that growth would occur year over year for at least the first few censuses. One potential factor in the lack of growth for online responses was that when door hangers with PIN numbers to complete the census online were initially distributed, heavy winds caused many of the printed hangers to blow away. This could have prevented some respondents from completing the survey online. Administration believes that online tools are still a good way to increase response rates and decrease costs.

Results came in this year to show that 100% of households were enumerated. However, further verification of the data found that there continued to be areas where residents refused to provide the information requested or where enumerators did not follow procedures to collect the best data. The author of this report would like to stress that despite any issues uncovered, this is the best data collection observed to date on the census project. There will always be areas for improvement with data collection at this scale. One interesting measure that could be tracked in subsequent years to evaluate the quality of the information gathered is that the number of responses listed as “Decline to Answer” for age and sex fell from 4.3% in 2014 to 4.1% in 2015.

The division of enumeration areas (EAs) appeared to work well, both in terms of project management as well as for subsequent analysis of the data. The enumeration areas have been designed with future growth in mind so that they can be split into smaller pieces. Going forward, the City Clerk’s Office should continue to evaluate areas that reach the benchmark of over 1000 dwelling units and work with Planning and Development to determine how those EAs should be divided based on future land uses and anticipated populations. In addition to dividing areas, the City should continue to look at adding dwelling type information to the GIS as described previously, in order to allow that information to carry over for each census. The dwelling type would then be verified, rather than entered from scratch each time, and errors should be greatly reduced.

By understanding the composition of the population that the City of Spruce Grove serves, Administration can carry out the strategic vision of being a place where people

The City of Spruce Grove – Municipal Census 2015 Demographic Report

choose to live, raise a family and grow a business. The census allows the City to take stock of its objectives and goals for the community and compare strategic priorities to what is actually happening on the ground. The analysis of the 2015 census has drawn out some interesting patterns and trends that should be monitored and built on in future demographic reports.

We have seen that young families continue to form the largest group in the population, and the City's focus should be on how to serve those people through the municipal services and programs offered. For example, the school divisions have started to see the ripple effect of having such a large pre-school cohort in 2010. Five years later, the growth of this age group is having a significant impact on schools and spurring the City to examine its policies on municipal reserve land.

It is also apparent that adults in their 30's currently form the largest population cohort, and their needs must be addressed. These could include such diverse measures as opportunities to use public transit to access employment areas, increasing the shopping and entertainment options for that age group, and creating family oriented gathering spaces in new neighborhoods. However, the City should not lose sight of other age groups, including seniors who have unique needs and the empty nesters of the Baby Boom generation, both of which are also increasing in population within Spruce Grove. A more diverse housing supply is one way to accommodate residents throughout their family- and life-cycle. These are just a few of the trends that must be noted as the City of Spruce Grove moves forward.