Background

Tracking and maintaining the City's population data and examining demographic trends are vital to strategic planning and operations. The population data collected by the City impacts provincial funding allocations and allows municipal staff 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 guides the frequency and administration of each census. The last municipal census was conducted in 2010, and the last federal census took place in 2011.

The 2013 census was conducted in accordance with policy 6,029. After reaching a population of 20,000, it is advantageous to conduct a regular census since there are financial incentives to a municipality reporting incremental population increases.

The objective of the 2013 census was to collect basic population data, including gender and age, the number of residents per household, and the type of dwelling unit. This year, the census was also available online through the City of Airdrie's Online Census website, which allowed residents to respond to the census at their convenience on the Internet. A total of 35% of the responses from this census were recorded via the online tool. The census was conducted from April 12 to May 9 with three different phases of activity. The first, from April 12 to 14 had enumerators dropping information cards off for each dwelling with a unique PIN so that residents could use the online system. Phase two, from April 15 to 25 allowed residents to respond via the website, and phase three from April 26 to May 9 saw enumerators visiting individual dwellings as has traditionally taken place.

All of the information discussed in this report is taken from the 2013 census or from previous municipal censuses. A total of 11,093 households and 11,889 properties were counted for a population of 27,875. There were no notable concerns with the data quality.

Enumeration Areas

There are sixteen census enumeration areas in Spruce Grove, divided in order to group one or two neighborhoods together. By maintaining the same enumeration areas over time, we allow for better comparisons to be made between neighborhoods in the long term, where in the past enumeration areas changed each year to divide the City into units with an equal number of dwellings. At some point, there will be enumeration areas that will need to be further divided, adding to the list as new areas that are currently farm land develop to an urban standard. However, this can be done in a way that allows for comparison, without changing the configuration of neighboring areas. The accompanying table on the next page describes the enumeration areas in terms of neighborhoods to provide some context.

Α	Harvest Ridge	I	Woodhaven, Woodside	
В	Spruce Ridge, Legacy Park	J	City Center	
С	Deer Park	K	Hilldowns, Linkside	
D	Heatherglen, McLaughlin	L	Brookwood	
E	Westgrove, Mobile City Estates	М	Broxton Park	
F	Aspenglen, Jesperdale	Ν	Spruce Village, Greenbury	
G	Millgrove	0	Grove Meadows	
Н	Stoneshire, Linkside	Р	Lakewood	

Population Growth

The population of Spruce Grove is now 27,875, representing an increase of 6.2% since the 2011 Federal Census. The City's population has more than doubled over the last two decades. In the past ten years, the growth rate has gone from between three and four percent annually, to over six percent; the growth of 3.1% annually between 2011 and 2013 is the lowest rate since 2003. Another indicator of population growth is the number of residential properties, which number 11,889. In 2010, the number of



properties was 10,446; this indicates about 4.4% growth each year since 2010. It is worth noting that the growth in residential properties between 2009 and 2010 was 12.7%. On the growth chart shown, the official census counts are indicated with a lighter color.

While the growth in Spruce Grove has slowed down since 2011, it remains robust and healthy. A population increase of 3.1% is indicative of a ... There is also a lower percentage of properties that are undeveloped or under construction, at 6.7% compared to 8.5% in 2009. One explanation for the reduced growth rate could be the increase in a variety of dwelling types; where there are more multi-unit dwellings and row houses, there may also be a reduction in the number of people per dwelling. We will look at this change more closely in the section on dwelling type.

The following map illustrates changes to the distribution of population across the City since 2010. As one would expect, the areas that are currently expanding to accommodate Greenfield development are showing the greatest increase in population, while some of the more mature areas of the City are showing a population decrease. The decrease could be indicative of families that are maturing (i.e. children moving away from the family home as they reach young adulthood). Readers should note that

the values are not relative to the overall population; rather, each enumeration area was considered separately.



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 relatively square shape. The largest populations are adults aged 25 to 39, and young children. In 2010, we can see that children aged 0-4 were in fact the largest cohort, while the age 30-34 age group is now the largest. Either way, the indication remains that people are moving to Spruce Grove or staying here in order to raise a family. The demographic trend here is not defined by the Baby Boom generation, unlike ten years ago when the dominance of that group could be clearly delineated in the population pyramid.

At this point, it should be explained that 1295 residents refused to provide information for the census, either regarding a resident's sex or their age. While that information is included in the total population count, it cannot be considered for the age-sex pyramid. This could be the reason why the overall shape of the 2013 graph has a smaller area than the 2010 graph.

In examining the 2013 and 2010 pyramids, we can also see that the proportion of young adults (age 15 to 24) has decreased today compared to a few years ago.





As part of the regular census analysis, administration has begun to report the dependency ratio for Spruce Grove. A dependency ratio measures the working aged population against the "dependents" in a population, or those who are not typically in the labor force (i.e. youths under age 15 or seniors over age 65). This number provides a

rough indication of the economic "burden" of a population. The rate is expressed as the number of dependents for every 1000 workers.

	2013	2010
Youth Dependency Ratio	328	313
Old Age Dependency Ratio	141	119
Total Dependency Ratio	469	433

It is worth noting that through much of the developed, western world, the old age dependency ratio is the higher of the two ratios. We have all heard about the aging of the population related to the Baby Boom generation reaching retirement and the potential for the old age dependency to create an undue burden on working aged people who will need to support the pensions, medical expenses and different housing and transportation requirements caused by this large age cohort. By examining the ratios for Spruce Grove we can see that the reverse is true in our community. The youth dependency is roughly triple that of the old age dependency. This has a dramatic impact on the types of services and resources that are needed by our residents, and on the types of programming and initiatives our administration should consider.

Households

For the purposes of this report there are two different terms used to describe a subdivided lot with residential 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 house or apartment units on it, but it may also be under construction or may simply be



an empty lot. 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 the 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 this has increased very slightly in 2013 to 2.61 people per dwelling.

The pattern of this graph has not varied significantly since 2010. Essentially it shows that the smallest average household sizes exist in areas that have a mix of housing types, such as City Centre (Area J) and Spruce Ridge (Area B). Larger households are found in areas where predominantly single detached dwellings have been built, such as



Deer Park (Area C), Aspenglen (Area F) and Grove Meadows (Area O).

The next graph shows a comparison between the percentage of the population counted in each enumeration area and the percentage of dwelling units. In general, the neighborhoods that have more households than people have greater diversity in the type of housing available. This includes Spruce Ridge and City Center (Areas B and

J). Those neighborhoods with proportionately more people than households are more homogeneous in terms of housing stock, including Deer Park and Woodhaven (Areas C and I). However, this year we have also seen that some areas that have diversified their dwelling types are also seeing larger household sizes, including Lakewood and Spruce Village/Greenbury (Areas P and N). It could be that the amenities in these areas, such as Century Crossing or Jubilee Park, are attracting families. It could also be that people moving into row house or other units are taking on roommates in order to pay the mortgage.

Property Status and Dwellings

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



As we can see, the numbers of undeveloped and vacant properties are at their lowest level in five years. In contrast, the number of properties under construction right now is at the highest level. One could assume then, that the undeveloped properties are now being picked up and transitioning toward being dwellings with residents. The higher level of construction is a positive sign showing that our growth is supported by economic activity.

The other factor examined during this census was the dwelling type. The numbers here take into account the vacant dwellings counted above, since those dwellings are complete but do not have residents living there. We can see that, as expected, single detached dwellings are the predominant type of housing in Spruce Grove. After that, multi-unit dwellings (apartment buildings or other buildings with 4 or more attached units) represent the second highest number of dwellings, followed by semi-detached



dwellings and row houses. Overall, the housing stock in Spruce Grove is relatively diverse, and through our planning tools such as the Land Use Bylaw, different housing types are encouraged. By having a range of housing choices, we also accommodate a range of residents with different needs for their individual households and of different economic status.

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 2013 census was very successful, particularly with the

introduction of an online option for completion. A total of 35% of residents completed the census via the online tool, which was higher than anticipated. In addition, enumerators were happy to have digital tools (tablets) at their disposal rather than having to carry a large amount of paper documentation during their working hours. Because the web-based tool was new for the City of Spruce Grove, there are a number of aspects that could be improved for the next census in 2015 in order to improve the responses received. They are as follows:

- (1) Reinstate the callback option. In the past, information was provided to residents so that they could register their information via phone at their convenience. Because of the online option, the callback option was removed, but there were residents without Internet service who wanted to respond via telephone.
- (2) Ensure that the City's servers are ready to handle the large volume of respondents. This year the strong response in the first five days of the census caused problems with the server which was unable to handle the amount of traffic generated. Some residents complained that the system was not working and they were not able to log in.
- (3) Scrolling drop-down menus for the dwelling type caused some data quality issues. It appeared that the drop-down menu did not lock after a selection was made, and people scrolling with their mouse may have inadvertently changed their dwelling type. This created a situation where the data had to be checked for accuracy by administration after the fact.
- (4) The enumeration period was shortened due to the availability of the online tool, which created difficulty in some areas with reaching all residents. In particular, large multi-unit dwellings were difficult to enumerate, and consideration should be given to providing more resources to complete those areas in the future.

Through analysis of the census data collected by the City, we can better understand the composition of our population and carry out our objectives with clarity. The census allows us to take stock of the vision and goals for the community and ensure that we are moving in the right direction. The analysis contained in this report demonstrates some interesting and unique trends that will continue to be monitored through future population counts.

We have seen that Spruce Grove continues to be a family focused community, and therefore we need to look at ways to best serve those people through our municipal services and programs.