Robin Creek Sociodemographic Profile

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This document provides an overview of the sociodemographic characteristics of the Robin Creek watershed. All data was obtained from the 2018 "Popular Demographics in the United States" Geographic Information Systems (GIS) file. We selected seven variables to examine: total population, total households, median age, population annual growth, population density, number of homeowners, and number of renters (Table 1).

Table 1: Overview of Robin Creek

Section	Shape Area (Yards²)	Total Pop.	Total Households	Median Age	Pop. Annual Growth	Pop. Density (Pop. per Sq. Mile)	Homeowners	Renters
1	921,090	675	315	41.3	0.42	3405.7	205	110
2	1,489,963	1219	590	58.9	0.69	3790.4	360	230
3	3,434,560	1369	674	42.9	0.9	1849	402	272
4	919,741	931	444	40.9	0.63	4676	365	79
5	2,861,163	2085	926	44.9	0.43	3380.4	594	332
Total	1,925,303	6279	2949	NA	NA	NA	1926	1023
Mean	1,925,303	1256	590	45.8	0.61	3420.3	385	205

To generate our data, we highlighted five (5) parcels that encompassed Robin Creek (Figure 1). In order to understand and analyze any other variables, we must consider the shape area. The area of Section 1 is 921,090 sq. yards, Section 2 is 1,489,963 sq. yards, Section 3 is 3,434,560 sq. yards, Section 4 is 919,741 sq. yards, and Section 5 is 2,861,163 sq. yards. Understanding the shape area gives us a better understanding of how much area we are examining for the selected variables.
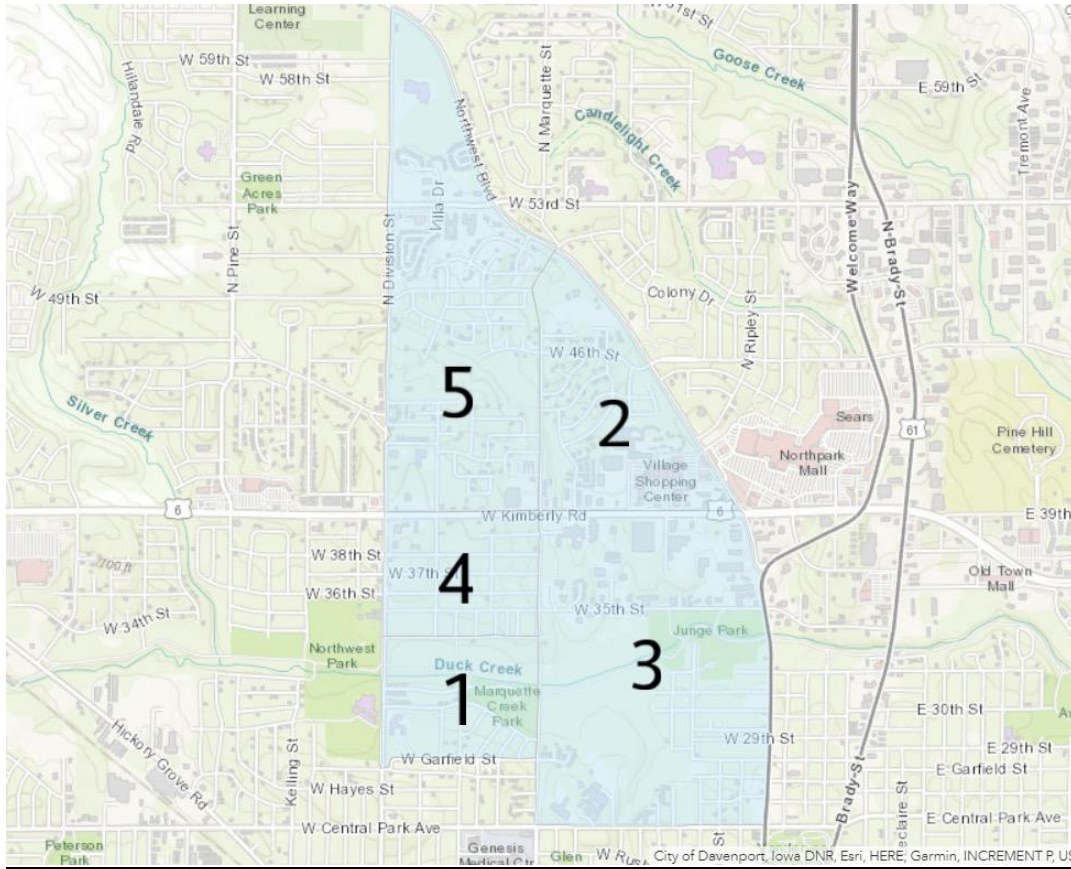
Figure 1: Robin Creek parcels

According to the "Popular Demographics in the United States" GIS file, the 2018 total population of the Robin Creek watershed is 6,279 people. There are 2,949 households in the watershed. The total number of households in each section ranged from 315 in section 1 to 926 in section 5 with an average of 590 households per section.

The median age in the Robin Creek watershed is 45.8 years. For all sections except 2, the median age is under 44.9 years. Section 2 however contains a senior living center, so it explains the higher median age of 58.9 years. Approximately 29 percent of the watershed's population is under 30 years old and 19 percent is 75 years old or older (Figure 2).

Age Breakdown of Robin Creek Area

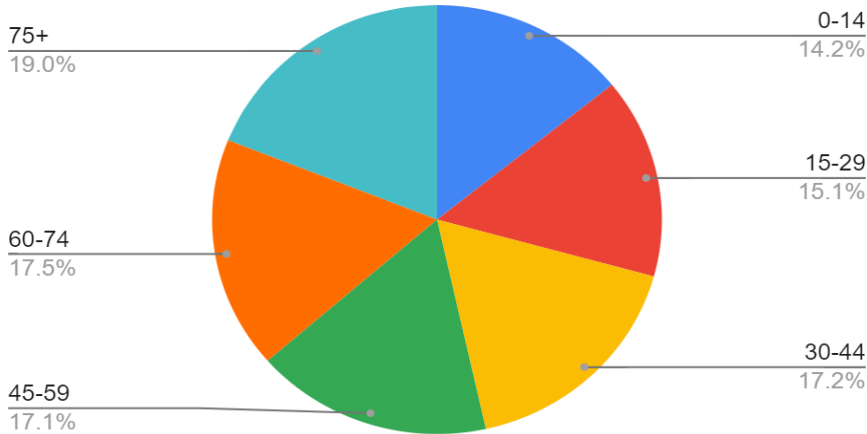|	
75+ 19.0%	0-14 14.2%
60-74 17.5%	15-29 15.1%
45-59 17.1%	30-44 17.2%

Figure 2: Age profile of the Robin Creek watershed

After examining total population, total households, and median age, we decided to examine population growth rate from 2010-2018. The average population growth rate was 0.6 people per year. Section 3 had the highest annual growth rate at 0.9 people per year and section 1 had the slowest growth rate at 0.4 people per year.

Another variable of interest is the total population density within these five sections (Figure 3). Population density measures the disbursement of total population over the area in square miles, so it gives land managers a better understanding of how many people are in an area in relation to the size of the area. Parcel sections are not divided into pieces of equal area as we can see in the table and map, and so it is crucial that we can standardize the data in each section in order to compare our findings. Section 4 was the most densely populated section and section 3 was drastically less densely populated than the others. We can visualize the residential pattern from this data, where section 3 may have more open and less developed land, where section 4 may be more urban with compact residences. As we know, humans impact their environment, so looking at how many people there, as well as how tightly they're packed into an area can help explain the degrees of influence.
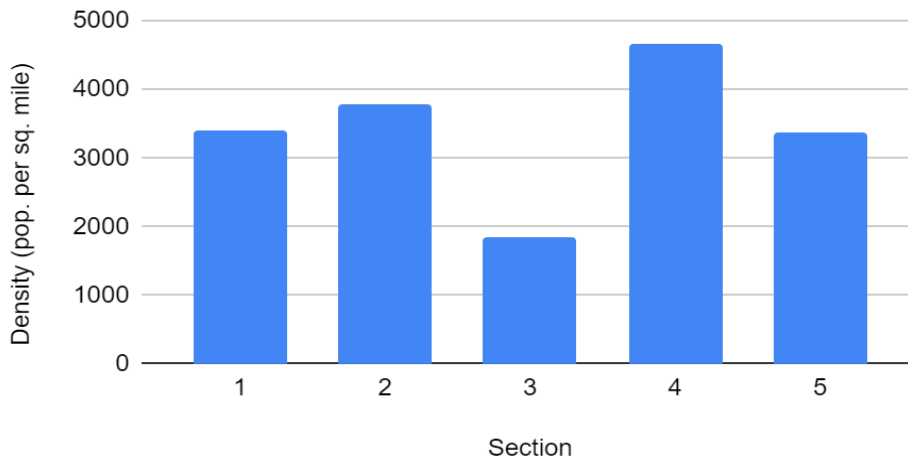
Population Density

Figure 3: Population density within Robin Creek sections

In each of the five sections, citizens who own their homes made up the majority of residents, with each section having homeowners be at least 59% of the total population in that area. Knowing the breakdown of private property owners in an area can help explain certain patterns, as, in some studies, people who own their land have been found to feel more attached and responsible for their land. Conversely, knowing that renters make up a minority of the total homeowner population in each section is equally useful to land managers. Renters have different rights and responsibilities to the land than their homeowner counterpart and this impacts how cities can and should go about making and recommending plans, such as plans intended to benefit the health of Robin Creek. Although the minority, in some areas renters made up to 41% of the homeowner types, which is still a sizable percentage.