## Section 2

## Population and Demographics

## Historic Population

At the time of the 2020 US Census, Buchanan County's population was 20,565 persons, representing a 1.9 percent decrease since 2010.
Figure 2.1, shown below, displays the population change in the county from 1950 through 2020. During this timeframe, the population peaked in 1980 at 22,900 and dipped to 20,844 in 1990 . The struggling farm economy throughout the Midwest is attributed as the primary reason for the nine percent drop in population between 1980 and 1990. The county's population experienced slight growth by 2000 to a population of 21,093 but declined to its current level by 2020.

Despite its rural characteristic, Buchanan County ranks $32^{\text {nd }}$ in total population out of lowa's 99 counties in 2020. Buchanan County's population is above the median county population of 15,211 in lowa, but below the mean (average) county population of 32,226 . The mean is skewed upward by the state's high concentration of population in urban areas. According to the 2020 Decennial Census, 37 percent of the state's population (1,181,367persons) live in the state's five largest counties (Polk, Linn, Scott, Johnson, and Black Hawk).

Buchanan County's population is spread among the eleven (11) incorporated cities and unincorporated Buchanan County; Figure 2.2 shows the composition of the county's population by jurisdiction.

As is evident, the majority of the population lives in one of three jurisdictions: unincorporated Buchanan County has the largest population, with approximately 36 percent. Independence, the largest city, represents the next highest portion of the population at 29.5 percent followed by Jesup at 12.2 percent. The other nine cities, combined, represent 22 percent of the county population.

Figure 2.2: Percent of County Population by Jurisdiction


## Population Projections

Population projections are generally based on the assumption that past trends will continue in the future and can be calculated using a mathematical formula.

Two models were used to estimate population projections, Linear and Geometric. Both models are averaging methods to predicting population change. Figure 2.3 shows the linear (number) and geometric (percent) change in the population from 1950-2020.

| Projection Type | 2020 | 2030 | 2040 |
| :---: | :---: | :---: | :---: |
| Linear |  |  |  |
| 1950-2010 | 20,565 | 20,513 | 20,462 |
| 1990-2010 | 20,565 | 20,472 | 20,379 |
| Geometric |  |  |  |
| 1950-2010 | 20,565 | 20,538 | 20,511 |
| 1990-2010 | 20,565 | 21,474 | 21,384 |
| Woods \& Poole Economics, Inc. |  |  |  |
| - | 20,565 | 20,825 | 20,781 |
| Average of Five Projections |  |  |  |
| - | 20,565 | 20,565 | 20,503 |
| Source: US Census Bureau; Woods and Poole Economics Inc. |  |  |  |

The Linear method uses the actual change in the total every decade. ten years.

| Figure 2.3: Historic Population Trends, <br> Buchanan County |  |  |  |
| :--- | :---: | :---: | :---: |
| Year | Census <br> Population | \# Change <br> (Linear) | \% Change <br> (Geometric) |
| $\mathbf{1 9 5 0}$ | 20,927 | - | - |
| 1960 | 22,293 | 1,366 | $6.5 \%$ |
| 1970 | 21,746 | -547 | $-2.5 \%$ |
| 1980 | 22,900 | 1,154 | $5.3 \%$ |
| $\mathbf{1 9 9 0}$ | 20,844 | $-2,056$ | $-8.9 \%$ |
| $\mathbf{2 0 0 0}$ | 21,093 | 249 | $1.2 \%$ |
| $\mathbf{2 0 1 0}$ | 20,958 | -135 | $-0.6 \%$ |
| $\mathbf{2 0 2 0}$ | 20,565 | -393 | $-1.9 \%$ |
| Avg. Change. (1950-2020) | -51.7 | $-\mathbf{0 . 1 \%}$ |  |
| Avg. Change (1990-2020) | -93 | $-\mathbf{- 9 . 4 \%}$ |  |
| Source: US Census Bureau |  |  |  | number of persons over a predetermined period in the community. From 1950 to 2020 the county averaged a decrease of 51.7 persons every 10 years (between Census counts). From 1990 through 2020, the population decreased 1.3 percent, an average loss of 93 persons

The Geometric method utilizes the percent change in population over that same period. From 1950 to 2020, the county population, on average, decreased by 0.1 percent every ten years. From 1990 to 2020, the county population decreased a total of 0.4 percent every

Figure 2.4 also includes population projections from Woods and Poole Economics, a firm that specializes in long-term county economic and demographic projections for all U.S counties. Projections are derived using over 900 variables.

Figure 2.4 shows the county's projected population using the linear and geometric projections based on time periods of 1950-2020 and 1990-2020 and Woods and Poole data. The average of the projections in Figure 2.4 indicates that the county's population will be an estimated 20,565 persons in 2030 (no change from 2020), and 20,503 by 2040 (-0.3 percent from 2020).

Figure 2.5 depicts the potential county population through 2040 according to the projections in Figure 2.4. For the sake of clarity, the geometric 19902020 projection is not shown since it is very similar to the linear 1990-2020 projection.


Age
Following state and national trends, Buchanan County has an aging population. Figure 2.6 displays the percentage of the county population by age groups using Decennial Census data. As the "baby boomer" generation continues to age, the share of the county's population of persons aged 45 and over continues to increase.


Figure 2.7 provides the breakdown of the population by age group from 2000 to 2020. From the 2000 Census to the 2010 Census, increases were experienced in the older portion of the county population, with the greatest increase in the age groups of $45-64$ ( +998 ) and 65 and older (+149). From 2010 to 2020, population increased only among the " 65 and older" age group, which experienced an even larger increase ( +657 ) than in the previous decade.

The table also shows some age groups experiencing a significant decrease in persons. From 2000 to 2010, the age cohorts that experienced decreases were part of the county's younger population. Age groups with the largest decreases were 25-44 (-739), 15-24 (-399), and 0-14 (-144). From 2010 to 2020, all age groups under 65 experienced decreases, with the largest decreases among 45-64 (-554) and 0-14 (-232). To some extent, the large decrease in the 45-64 group may represent some of its members aging into the" 65 and older" group.

| Figure 2.7: Age Cohorts of Buchanan County |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Cohort (in years) | 2000 |  | 2010 |  | 2020 |  | \# Change, 2000-2010 | \# Change, 2010-2020 |
|  | \# | \% of Total | \# | \% of Total | \# | \% of Total |  |  |
| 0-14 | 4,869 | 23.1\% | 4,725 | 22.5\% | 4,493 | 21.8\% | -144 | -232 |
| 15-24 | 2,872 | 13.6\% | 2,473 | 11.8\% | 2,275 | 11.1\% | -399 | -198 |
| 25-44 | 5,549 | 26.3\% | 4,810 | 23.0\% | 4,744 | 23.1\% | -739 | -66 |
| 45-64 | 4,747 | 22.5\% | 5,745 | 27.4\% | 5,191 | 25.2\% | 998 | -554 |
| 65+ | 3,056 | 14.5\% | 3,205 | 15.3\% | 3,862 | 18.8\% | 149 | 657 |
| Total | 21,093 | 100.0\% | 20,958 | 100.0\% | 20,565 | 100.0\% | -135 | -393 |
| Median Age | $36.4$ |  | $39.0$ |  | $39.8$ |  | +3.4 years | +0.8 years |
| Source: Decennial Census |  |  |  |  |  |  |  |  |

According to the 2020 Census, the county's median age was 39.8. This is older than the State of lowa's 2020 median age (38.6) as well as the United States' median age (38.8). As the population continues to age, the county can expect to continue to see an increase in its elderly population.

Figure 2.8 illustrates Buchanan County's natural population change by comparing the number of live births and deaths. According to available data from 2005 through 2020, births have regularly outpaced deaths in the county, though they nearly converged in 2017. Birth rates appear to have slipped while death rates have crept upward since 2005. Birth and death rates in 2020 were 13.6 and 11.3 , respectively, compared to 14.2 and 8.8 , respectively, in
2005. Data on 2020 death rates attributable to the COVID-19 pandemic was not available for this report, but nationwide data suggests that a majority of COVID-19 deaths occurred in 2021 or later.

Figure 2.8: Live Birth and Death Rates in Buchanan County, 2005-2020
Source: Iowa Department of Public Health


The world has seen a significant drop in the death rate, leading to an increased global population. In the United States, birth rates have dropped due to cultural and economic trends, while death rates have risen, slowing population growth. According to lowa's Legislative Services Agency, the state's population increased by $3.8 \%$ from 2010 to 2020, of which 3.1 percentage points were attributed to natural change (births minus deaths), while 0.7 percentage points ( $18.5 \%$ of the total increase) consisted of net migration driven by immigration from other nations.

| Figure 2.9: Sex of County Residents |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{2 0 1 0}$ |  | $\mathbf{2 0 2 0}$ |  |  |  |  |  |  |
|  | $\#$ | \% of Total | $\#$ | \% of Total |  |  |  |  |  |
| Female | 10,557 | $50.4 \%$ | 10,342 | $50.3 \%$ |  |  |  |  |  |
| Male | 10,401 | $49.7 \%$ | 10,223 | $49.7 \%$ |  |  |  |  |  |
| Total |  |  |  |  |  | $\mathbf{2 0 , 9 5 8}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{2 1 , 1 4 1}$ | $\mathbf{1 0 0 \%}$ |
| Source: Decennial Census |  |  |  |  |  |  |  |  |  |

## Gender

According to Census data, the county's population has slightly more women than men. Figure 2.9 details the gender of Buchanan County residents as reported in each Census since 2000.

The small variance in sex can be attributed to women's longer life expectancy. Hence, women also comprise a larger portion of the county's elderly population ( 65 or greater) than men, as indicated in Figure 2.10.

Figure 2.10: County Age and Gender Population Pyramid, 2020
Source: 2020 Census


## Race and Ethnicity

Figure 2.11 shows the breakdown of the county population by race in 2000, 2010, and 2020 according to the Decennial Census. Overall, the table indicates that the county is becoming slightly more diverse. White or Caucasian was the predominant category with 95.8 percent of residents identifying as such in 2020.

Between 2000 and 2020, the county's white population decreased by $-1,061$ persons ( -5 percent), tracking the overall population decline. The County's non-white population more than doubled from 336 in 2000 to 869 in 2020. The increase was driven primarily by the growth in populations that identify as "Other Race" or two or more races. Notably, modest increases in very small populations can lead to very large proportionate increases. For example, the Native Hawaiian and Pacific Islander population grew from 1 in 2000 to 12 in 2020, an 1100 percent increase.

The Census Bureau considers Hispanic or Latino origin to be an ethnicity rather than a race. From 2000 to 2020, Hispanic or Latino residents of all races increased from 131 ( 0.6 percent) to 338 ( 1.6 percent).

Figure 2.11: Race and Ethnicity of County Residents, 2000-2020

| Race (one race unless otherwise noted) | 2000 |  | 2010 |  | 2020 |  | \% Change,2000-2020 | Net Change,2000-2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \# | \% of Total | \# | \% of Total | \# | \% of Total |  |  |
| White | 20,757 | 98.4\% | 20,505 | 97.8\% | 19,696 | 95.8\% | -5\% | -1,061 |
| Black or African American | 57 | 0.3\% | 67 | 0.3\% | 72 | 0.4\% | 26\% | +15 |
| American Indian \& Alaskan Native | 45 | 0.2\% | 32 | 0.2\% | 28 | 0.1\% | -38\% | -17 |
| Asian | 85 | 0.4\% | 90 | 0.4\% | 52 | 0.3\% | -39\% | -33 |
| Native Hawaiian \& Pacific Islander | 1 | 0.0\% | 1 | 0.0\% | 12 | 0.1\% | 1100\% | +11 |
| Other Race | 34 | 0.2\% | 36 | 0.2\% | 100 | 0.5\% | 194\% | +66 |
| Two or More Races | 114 | 0.5\% | 227 | 1.1\% | 605 | 2.9\% | 431\% | +491 |
| Total | 21,093 | 100\% | 20,958 | 100\% | 20,565 | 100\% | -3\% | -528 |
| Hispanic or Latino (any race) | 131 | 0.6\% | 243 | 1.2\% | 338 | 1.6\% | 158\% | 207 |

