

# City of Page

## Comprehensive Housing Study



*Prepared by Michael Baker International*

City Review Draft

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# Chapter 1 - Introduction

## Overview

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Page, Arizona, is one of the most remote communities in the United States, approximately 277 miles north of Phoenix. Located in northern Arizona on the border of southern Utah, this community abuts the Colorado River and the picturesque southern shore of Lake Powell. Part of Coconino County, Page is over an hour's drive from any other incorporated city, surrounded by Glen Canyon National Recreation Area, other federal land, and the Navajo Nation.

The community first started as a housing camp for workers constructing the Glen Canyon Dam in 1957, as well as their families. Originally named Government Camp, the 24 square miles of land were obtained through an exchange with the Navajo Nation for a larger tract in southern Utah in 1958. The community was renamed after the Bureau of Reclamation's commissioner, John Page, and incorporated in 1975. The community has since grown to approximately 7,600 permanent residents.

The city is currently experiencing a dramatically changing economic landscape. The impending closure of the region's second largest employer, the Navajo Generating Station, by the end of 2019 is expected to have significant impacts on the community. At the same time, the growing tourism industry in Page is placing pressures on the existing housing market, with increased demand for both temporary and permanent lodging for service industry employees and a growing market for vacation home rentals which will require shifts in the housing supply to accommodate demand. Page is undergoing a metamorphosis as the demands for housing continue to shift with the social and economic changes facing the community. This document intends to analyze the key housing issues in the community to aid in the development of future housing policy and strategy for long-term success.

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# Content

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The Page Comprehensive Housing Study comprises six chapters, which are summarized below.

## Introduction

This chapter presents Page in the context of its history, surrounding communities, economic drivers, and growth over time. It provides a preview of the document and gives the audience a comprehensive overview of the city from its inception to today.

## Study Overview

This chapter of the Comprehensive Housing Study establishes the methodology used to complete the analysis for this document. The contents of this chapter explain the data sources used and the primary data challenges encountered through the research process. The chapter also provides an overview of the outreach process, detailing the various types of community engagement employed throughout the study. Lastly, this section briefly describes the analysis performed on the data to provide a picture of Page's housing market and local trends.

## Background and Existing Conditions

This chapter describes the city's general history and creates a timeline of housing trends in Page over the years to exhibit an overview of the community's general housing market to date. The chapter also analyzes the economic trends in Page and major drivers of the local economy, including its growing tourism market and future challenges.

## Demographic, Economic, and Housing Analysis

This chapter identifies the most important demographic, housing, and economic issues related to the housing needs of the local community. The data presented serves as a needs analysis for policymakers, stakeholders, and residents by providing an understanding of:

- The demographic profile and household characteristics of current residents;
- The economic and labor conditions of the local economy and impacts on the jobs and housing balance in the city;
- The characteristics of the existing housing supply and, more specifically, rental housing and owner-occupied housing characteristics; and
- The existing housing trends, including pricing, sales, and inventory, and the affordability and diversity of the housing options in Page.

## Current and Future Housing Needs

This chapter identifies the community's housing needs based on the analysis of publicly sourced data and community outreach data. The chapter examines housing needs specific to the unique characteristics of Page and the vulnerable populations residing there. The analysis determines retiree, senior, and accessible housing needs, tourism sector labor housing needs, and critical service provider housing needs.

This chapter also examines the gaps in housing type, housing inventory, and housing affordability in Page in the context of both the publicly sourced data and community outreach data. In addition, it analyzes the barriers to a

## 1. Introduction

prosperous housing market by examining the impact of tourism, local development codes, available housing development funding sources, and applicable market forces.

## Recommendations

The Recommendations chapter is based on the findings from the data analysis, including the gaps and barriers analysis and community input. Recommendations cover three categories: recommendations for how to address challenges facing the existing housing stock, recommendations to help address current and foreseeable economic challenges, and recommendations that identify short-term or intermediate actions that the City can take.

## Appendix

This document also includes an appendix, which summarizes the community engagement process as well as the results of that process.

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# Chapter 2 - Study Overview

## Methodology

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The following section summarizes the methodology used to complete the Comprehensive Housing Study.

### Data Sources

#### Demographic and Economic Data

To document demographic trends, this report uses US Decennial Census data from 2000 and 2010, American Community Survey data from 2012–2016, and the Arizona Office of Economic Opportunity 2015–2050 Projections. Each table and statistic mentioned in this study is either sourced in the text or referenced in a footnote. Trends in Page’s demographics are compared to similar data as for Coconino County and the state of Arizona, when applicable, to identify unique populations and needs that may disproportionately impact Page and require distinct responses.

#### Housing Data

To document housing trends, this report relies on data from the US Department of Housing and Urban Development’s (HUD) 2010–2014 Comprehensive Housing Affordability Strategy (CHAS) and the Multiple Listing Service (MLS) that tracks data regarding real estate transactions in the United States. Internet sources, including Zillow and Trulia, were also used to obtain recent housing price data. Multiple data sources are necessary because not all community information is available in consistent datasets.

#### Data Challenges (Small Communities Problem)

Small communities pose a unique data challenge, particularly when using public datasets. Most public datasets, like the American Community Survey, are based on survey data that is collected from random samples over a period of time and then aggregated to create a data model. In large communities, the sample process can often be a good representation of the population because the larger population supports a larger sample size. In smaller communities, there are not enough people to support larger samples. A larger margin of error results, which can be mitigated by:

1. Pulling data from datasets that have multiyear samples, which will increase the overall sample size.
2. Comparing datasets from different agencies or surveys to see if there are major discrepancies.
3. Collecting an original dataset to use as reference data to help proof the public data.
4. Completing an on-the-ground evaluation of existing conditions to see if the data correlates with physical conditions.

This study used all four methods to verify the data used for analysis. Even with thorough data proofing, there are still instances where sample data fails to accurately represent a small community. We have identified instances where the data may be vulnerable to an exceptionally high margin of error.

## 2. Study Overview

### Outreach Process

The second part of this housing study involved a robust public outreach process intended to increase the understanding of housing issues facing the community. Public outreach was conducted via a range of activities, including an online survey, and a community immersion week that included a public workshop, a City Council meeting, focus groups, interviews, and an existing conditions assessment. The methods and results of each outreach activity are detailed below.

### Online Survey

The online survey was available from March 22, 2018, to April 30, 2018 via SurveyMonkey with a link on the City's website. The survey was offered in Navajo and English to reach as many people as possible. The survey was advertised through radio ads, posting on the City's webpage, a postcard mailing, local news coverage, and outreach with stakeholder groups. The survey and a summary of survey results are included in the appendix to this report. The next chapter discusses key findings and observations from the survey responses.

### Community Immersion

Community immersion in an outreach process where Michael Baker International staff go to study sites and spend time in the community gathering information from interviews with residents and stakeholders, public meetings, focus groups, and on-the-ground assessments of housing and economic conditions. The intent of community immersion is to understand where the data gathered through public sources and city sources matches and diverges from what is being experienced by residents and stakeholders. The following sections describe the different outreach methods, participation, questions asked, and recurring comments.

### *Stakeholder Focus Groups*

A total of seven meetings were held involving five separate identified stakeholder groups and an informal group discussion at the senior center. Stakeholder groups included City staff, local employers/Chamber of Commerce, tourism employers, Navajo Generating Station employees (2 groups), nonprofit service providers, and real estate agents. These six groups were selected because of their roles in the local economy and their relationships with residents. Outreach for the focus groups included emailed invitations to individuals and entities who are known leaders in their industry or community.

Each stakeholder focus group included a customized set of questions for discussion. Questions were designed to encourage open discussion and provide insight on specific housing-related issues. Each stakeholder group had six to seven standard questions, with one or two customized questions to help guide discussion. Questions covered the following topics: opportunities and concerns for the future of housing, rental housing availability and stock, opportunities for homeownership, effects of short-term rentals on available housing, barriers to finding affordable housing, specific unmet housing needs, the condition of the housing stock, and the need for seasonal or temporary housing.

### *Public Meetings*

As part of the community outreach effort, Michael Baker staff presented at a City Council meeting and a Development Advisory Board meeting, and conducted an open house public workshop. All three meetings were publicly noticed and advertised.

## 2. Study Overview

The public workshop was held to help supplement information collected through the focus groups and the online survey. Four exhibits at the workshop focused on housing opportunities and concerns, housing type preferences, short-term and vacation rental impacts, and a table for public comments. The workshop was an open-house format that encouraged people to move from station to station and discuss exhibit-specific themes with the Michael Baker and City staff on hand.

### *Housing Condition Survey*

The housing study team concluded the community immersion with a door-to-door housing condition survey of key neighborhoods in the city. A housing condition survey looks at the exterior condition of homes and neighborhoods to assess the overall quality of the housing stock, if there are deferred maintenance needs, and if the public infrastructure is sufficient and in good repair. Questions for the survey were modeled from HUD's Community Development Block Grant (CDBG) housing condition survey, and the complete survey form is included in the report's appendix. The survey specifically assessed the condition of windows, roofs, foundations, siding, and the electrical connections of the home. Additionally, the survey gathered data about sidewalks, driveways, lot drainage, gutters, and roads in front of each home. A total of eight different neighborhoods were surveyed: Westview Apartments, Glenn Canyon Drive, Rimview Mobile Home Park, stick-built and manufactured housing located between Tower Butte Avenue and Thunderbird Avenue, Bureau Housing, Chapman Mobile Home Park, Powell Mobile Home Park, and manufactured and stick-built single-family housing units off Elk Road and San Francisco Road. A map of the surveyed neighborhoods is included in Chapter 3. A total of 812 homes were surveyed.

## Analysis and Recommendations

The analysis included several distinct steps. First, demographic, economic, and housing trend data was collected and analyzed from publicly available datasets. This analysis involved comparing community statistics to existing conditions and community history to better understand how the community has evolved and where there are opportunities and challenges to addressing community problems. Second, an intensive public outreach process was conducted that included multiple methods of community engagement. Input from this effort helped to validate much of the analysis and lay the framework for identifying gaps, barriers, and recommendations. Third, data was collated for the analysis of gaps and barriers based on the first two steps. Finally, this analysis was used to prepare recommendations about the next steps the community will need to take to actively address community challenges.

# Chapter 3 - Background and Existing Conditions

## City of Page Background

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### History of Page

Page is a small community located just south of the Arizona-Utah border, approximately 277 miles (four and a half hours) north of Phoenix and 272 miles northeast of Las Vegas. Page is home to several natural attractions, with the Colorado River and Glen Canyon National Recreation Area to the north and west and the Navajo Nation to the east and south. The city shares a border with the Navajo Nation, the United States' largest Native American tribe, and the Navajo people represent a large segment of the population in the Glen Canyon area. The city is approximately 16.6 square miles, according to the US Census Bureau, and located on the southern edge of the Great Basin Desert on the Colorado Plateau, perched 4,300 feet above sea level and 600 feet above Lake Powell on Manson Mesa.

Page was initially founded in 1957 to house the workers who built the Glen Canyon Dam on the Colorado River, along with their families. The dam provides hydroelectric power for Arizona, Utah, Colorado, Nevada, Nebraska, Wyoming, and New Mexico, and created Lake Powell, which has been a vital water source for the traditionally dry southwest. The site for Page was obtained in trade negotiations with the Navajo Nation. Originally named Government Camp, the city was renamed after John C. Page, the commissioner of the Bureau of Reclamation, and officially incorporated in 1975. The US Census Bureau estimates the city to be home to approximately 7,600 residents as of 2016.

Page experiences a generally arid climate with hot, dry summers and cold winters with little snow, and is a convenient location from which to stage trips to other destinations in the scenic country of northern Arizona and southern Utah. Tourism is a major industry in Page, with nearby Lake Powell supplying miles of aquatic recreation opportunities for visitors, and attractions like Horseshoe Bend and Antelope Canyon creating an almost year-round tourist draw. Other non-tourism employers include the Navajo Generating Station and the Page Unified School District. However, the Navajo Generating Station, which was the city's second largest employer as of 2017 and is the largest coal-fired power plant in the western United States, is slated to be fully decommissioned by no later than 2024, which will contribute to the shifting focus of the local economy to other industries. The residents and leaders of Page continue to work toward strengthening the local economy, despite this major change in the local industries, by actively seeking new opportunities to be a proactive player in obtaining new revenues, better services, and a higher standard of living for Page's citizens.

### Housing Trends in Page

#### Periods of New Housing

Built on Manson Mesa, Page is compact and relatively dense, in contrast with vast open spaces off the mesa. The traditional compact urbanized development on Manson Mesa can be attributed to the fact that the city was initially planned by the Bureau of Reclamation to serve the workers constructing Glen Canyon Dam. The City is a major landowner of much of the vacant land in Page, and development on the mesa is directly influenced by the city's

### 3. Background and Existing Conditions

existing infrastructure system. Development off the mesa requires new infrastructure to accommodate that development.

With the City's major influence with landownership, topographical constraints, existing infrastructure constraints, and the local goal to prioritize infill development, Page has intentionally avoided the development of leapfrog sprawl that many other Arizona cities experience. Almost three-fourths of all homes in Page were built between 1960 and 1999, according to the US Census Bureau. Today, the city comprises a variety of home types, but the majority are generally either stick-built or manufactured single-family units with either carports or attached garages. A sizeable number of older mobile homes can also be found in Page. According to the American Community Survey (ACS), there are very few duplexes or large apartment complexes (over 20 units) in the city. During the Housing Condition Survey, staff surveyed one large apartment complex. However, the complex had multiple addresses, and several units had been converted to short-term housing, which may have caused the complex to be omitted from the survey sample. Table 1 shows the distribution of housing types in the city.

**Table 1 – Housing Units By Type**

Unit Type	Unit Count	Percentage of Total
1-unit, detached	1,389	49.40%
3 or 4 units	116	4.10%
5 to 9 units	247	8.80%
10 to 19 units	38	1.40%
Mobile home	1,020	36.30%
Total housing units	2,810	100%

Source: 2012–2016 ACS

The lack of housing diversity, concentration of aging units, especially mobile homes, and scarcity of new housing units has contributed to a housing shortage, exemplified by rising housing costs, deferred housing maintenance, low vacancy rates, and overcrowding. Housing shortages also result in a range of externalities that echo through the economy, impacting employers, businesses, schools, and critical services.

#### *Stick-Built Homes*

Page contains a variety of single-family units, including stick-built homes, which are houses constructed entirely or largely on the site they are intended to occupy once completed. Typically comprising a lumber frame, with interior drywall, exterior siding or stucco, and tiles or shingles for roofing, this type of housing is built using a more traditional method of home building, with the term “sticks” referring to the superstructure of walls and roof. These homes involve a more costly and time-intensive construction process than manufactured units, which are built off-site on assembly lines. However, they tend to age well and can endure short periods of deferred maintenance without losing structural integrity. Stick-built homes are interspersed throughout the city and can be found in every neighborhood in Page, excluding the mobile home parks.

#### *Cinder-Block Houses (Bureau Housing)*

The city is also home to cinder-block houses built during the construction of the Glen Canyon Dam. The housing condition survey examined 812 units in Page, some of which were cinder-block, or masonry, homes, as depicted in

### 3. Background and Existing Conditions

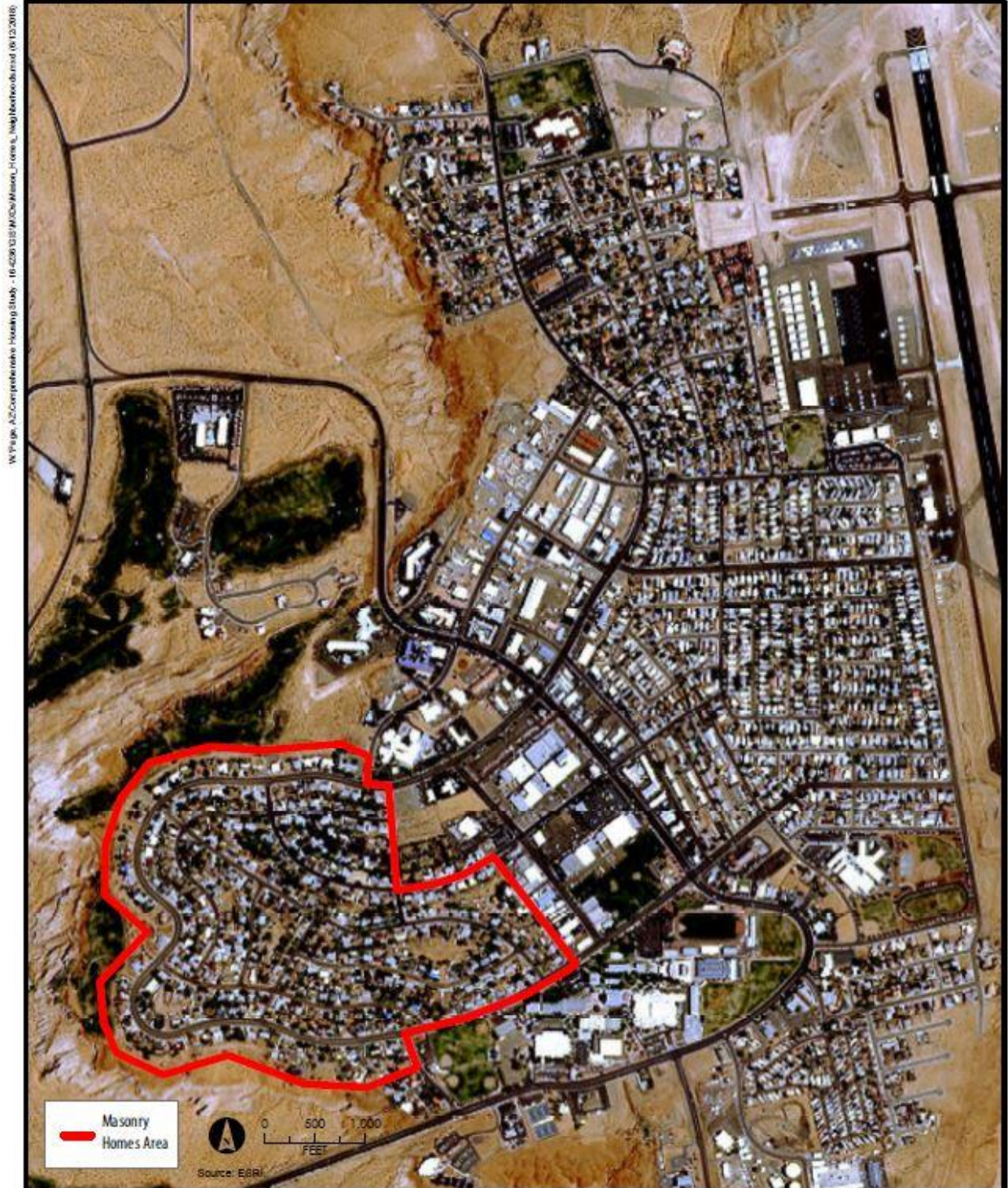
Map 2. Leftover cement and other surplus materials from the dam construction combined with standardized floorplans reduced the original cost of building the cinder-block homes, which typically cost substantially more than stick-built homes. Cinder-block homes are generally ideal for areas with extreme climates because of their stability, longevity, and ability to provide substantial thermal mass, which improves heating and cooling performance. These homes are unaffected by termites, are resistant to extreme weather, and are generally soundproof. Masonry homes provide good insulation against cold and heat, which can reduce a home's net energy usage. Concrete blocks are generally a more expensive building material than lumber, but these homes can remain in good condition with minimal upkeep and can withstand extended periods of deferred maintenance, provided roofs and windows are kept in repair.

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### 3. Background and Existing Conditions

Map 2 – Former Bureau Housing



### 3. Background and Existing Conditions

#### *Subdivisions*

Page is home to many subdivisions, with the last subdivision developed in 2010. Approximately 50–60 subdivisions of various sizes are located in Page, although most are small. These subdivisions are typically constructed in phases and contain a variety of housing types, including custom built homes, manufactured housing, and tract housing, and make up the bulk of newer housing in the city. The following sections detail the characteristics of these types of housing in Page.

#### *Custom Built Housing*

The bulk of the city's stick-built homes are custom built homes. These homes are generally built in suburban areas on empty lots, or in existing residential neighborhoods as infill development. They are typically built specifically for an individual homeowner and reflect the homeowner's specific preferences and needs. The homes allow homeowners to control various components of the construction and design of their home, but tend to cost significantly more than manufactured or tract built housing. In addition, since custom built homes generally reflect the vision of an individual, they may not always integrate visually or physically into the existing surrounding housing landscape. They can be difficult to resell, mostly due to higher prices resulting from the higher construction costs and the customized unit features.

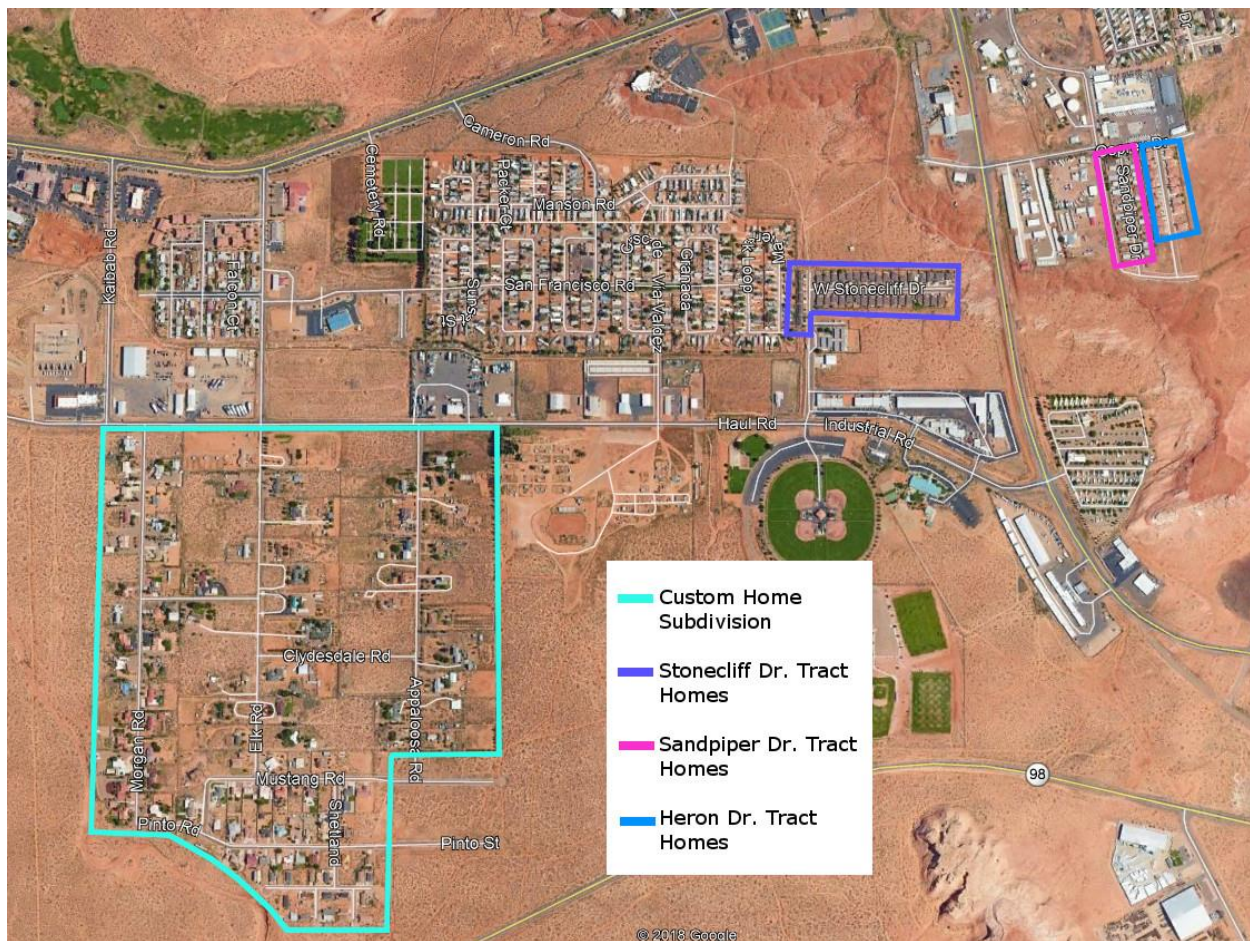
#### *Tract Housing – Small Developments*

Page also contains a few tract housing developments, generally comprising single-family units. This type of housing is constructed by dividing a large tract of land into small individual lots in which multiple single-family homes sharing similar or themed floor plans are built. Tract housing units typically minimize construction costs by using a few standardized architectural designs and reduce labor costs through the mass production of templated houses. In addition, the mass installation of infrastructure decreases the per-unit cost of construction to make the final home sales price more affordable. Tract housing developers generally need larger lots that can be subdivided into enough properties so that the mass-produced units can provide economies of scale. This means that while the final unit costs are lower than custom built homes, the initial financial outlay is substantial and requires developers with significant financial capital. Most housing tract developments in Page have been smaller, with only a few dozen units. Map 3 shows the three most recently constructed tract housing developments as well as the custom home subdivision with units currently under construction.



### 3. Background and Existing Conditions

**Map 3 – Active Subdivisions and Housing Tracts**



Base Map Source: Google Earth

#### Current Development

The most recent tract housing development in Page was the Stonecliff Drive project completed in 2005, which consisted mostly of smaller three-bedroom units priced competitively for first-time homebuyers just entering the housing market. The Stonecliff Drive development included 39 units, and the homes' current resale prices are in the low \$200,000s. Tract housing relies on economies of scale to be economically feasible. The smaller the tract development, the more financial risk involved in the development. This is particularly true when the project must include costly infrastructure expansions. These factors, combined with construction costs and the limited experienced construction labor available in Page, have resulted in a stalled residential development market, where the only units being built are single-family custom homes. A major challenge in addressing the housing need in Page will be restarting, and possibly reconfiguring, tract housing developments to provide more affordable entry-level ownership units.

#### Manufactured Housing

Manufactured housing and mobile homes are often used as interchangeable terms, however, there are specific definitions for each of these terms. Prefabricated housing units built before HUD's 1976 building code was put in place are generally considered mobile homes, and often resembled recreational travel trailers, with permanently

### 3. Background and Existing Conditions

attached chassis and lightweight building materials. These units were built without official codes or standards, and the quality of the units varies greatly from brand to brand. Manufactured housing is the official term referring to prefabricated units built after the 1976 code that established set standards for factory built units. While the addition of building codes did improve the quality of manufactured units, it can be difficult to identify at a glance whether a unit was built shortly before or immediately after 1976. For the purposes of this study the term mobile home refers to units obviously built before 1976 and difficult-to-date prefabricated units installed on a permanent chassis. Manufactured housing refers to post 1976 prefabricated housing, and includes units installed on permanent slab or raised foundations, and newer modular units.

Manufactured housing in Page comprises of both prebuilt housing types. The vast majority of the mobile homes in Page are still on their chassis, and many have the towing tongue still intact and attached (as opposed to disassembled and stored). According to the US Census Bureau, mobile homes comprise 36.3% of the existing housing stock in Page. Page also has a substantial number of manufactured housing units, located both in the mobile home parks and in single family residential neighborhoods. The manufactured units in the mobile home parks were often difficult to date, most had not been installed on a permanent foundation, were still attached to their chassis with the towing tongue still connected. The bulk of the mobile homes in page showed signs of moderate to severe dilapidation. The manufactured units had a greater range of conditions, and the maintenance of the unit seemed to be related to the neighborhood, age of the unit, and whether or not the unit had been installed on a permanent foundation. There are three mobile home parks in Page—Rim View Trailer Village, Chapman Mobile Home Park, and Lake Powell Mobile Home Village—all of which primarily support mobile homes and manufactured units on a chassis. Rim View Trailer Park is exclusively made up of mobile homes that predate the federal mobile home building standards put in place in 1976 and older recreational travel trailers currently being used as permanent housing. Both Chapman and Lake Powell have both mobile and manufactured units, as well as a very small handful of travel trailers.

#### Predominance of Older Homes

As mentioned previously, the housing stock in Page is aging. The major boom in housing construction in the city took place between 1970 and 1979. Since that time, housing construction has gradually diminished, and development has stalled significantly in the past decade. Although the development of housing has declined over time, the demand for housing has not reflected this pattern. As a result, many of the mobile homes and manufactured housing units that were initially intended to provide temporary housing to the workers building the dam and the Navajo Generating Station have become permanent units. These units do not age as well as stick-built and cinder-block homes, and many have deteriorated beyond repair. The current housing shortage in the city compounds the problem, as there are not enough housing units, and families must choose between occupying deteriorated mobile and manufactured homes or leaving Page.

The shortage of new housing stock also contributes to the deterioration of the existing housing. The housing market in Page has a 3.1% vacancy rate in rental units and a 1.3% vacancy rate in owner-occupied units. A healthy rental market vacancy rate is between 5% and 7% to support stabilized housing costs. It is also vital to have newer units as part of the housing stock because new units are more competitive and incentivize landlords to rehabilitate and modernize older housing stock to maximize rents. Based on the 2016 ACS counts, Page would need to add 16 new rental units to meet a 5% vacancy rate and 33 new units for a 7% vacancy rate. However, there is very likely a higher demand for rental units than is reflected in the vacancy rate, based on the generally poorer condition of much of the available rental housing. Based on observation through the housing condition survey, several of the units identified as vacant were also in very poor or even uninhabitable condition.

### 3. Background and Existing Conditions

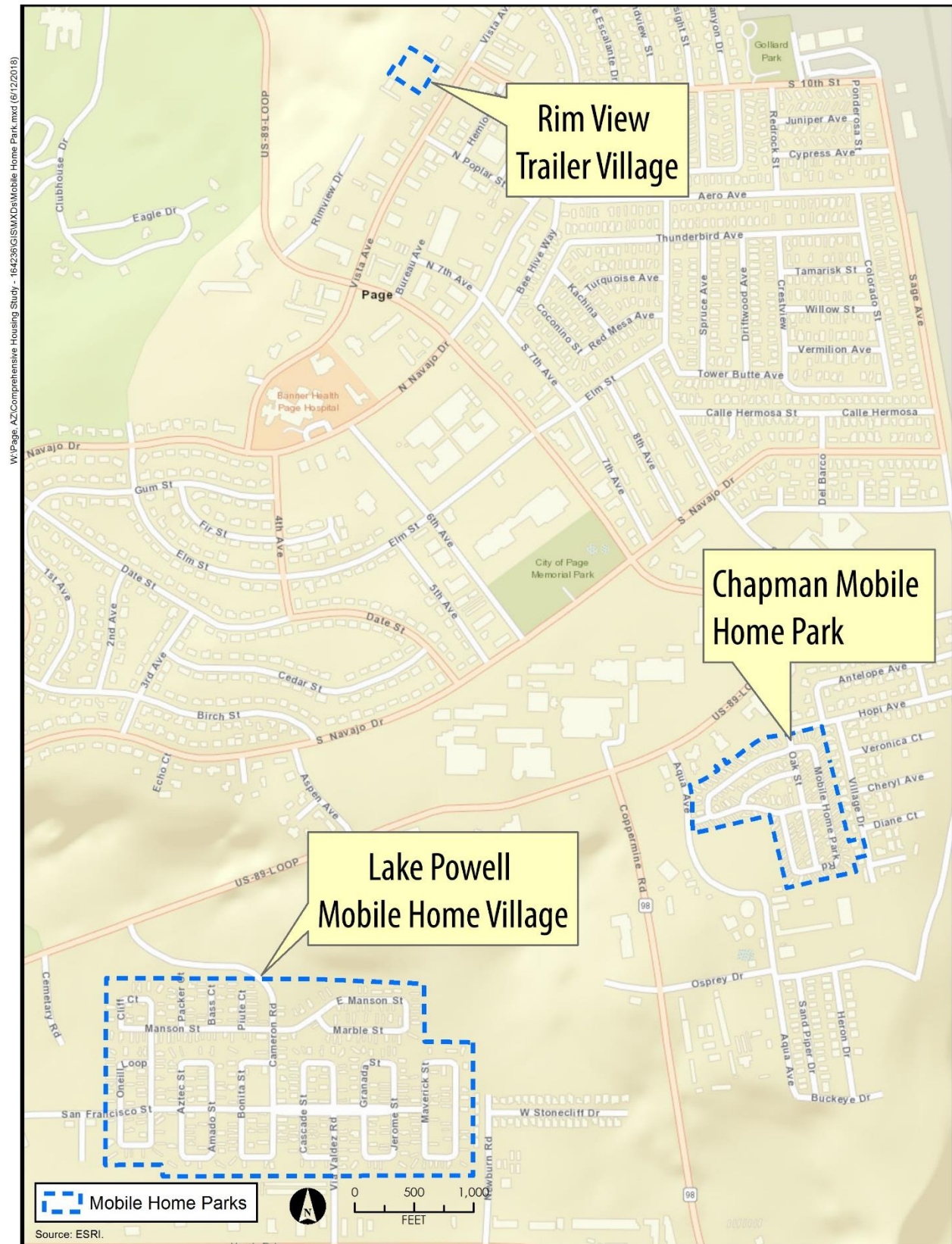
#### Mobile Home Parks

As displayed in Map 4, the mobile home parks are a significant component of the local housing market. Providing space for more than one-third of the housing units in Page, these mobile home parks have a great deal of influence on the local housing market, particularly regarding affordable and low-cost housing. All three parks that were evaluated during the housing condition survey exhibited varying levels of infrastructure. While all three parks are occupied, only the two larger parks, Chapman Mobile Home Park and Lake Powell Mobile Home Village, have paved streets. Of the two parks, Lake Powell has limited sidewalks and gutters but deteriorated street surfaces, while Chapman has a recently refinished street surface with traffic controls but no sidewalks or gutters. A major challenge in addressing park infrastructure is that while the park properties are owned privately, the City has the responsibility for maintaining the streets. Additionally, only Lake Powell Mobile Home Village has a substantial number of vacant spaces that could be made available for new mobile homes. The two large parks dominate the local market of existing manufactured housing as well as potential lots for new manufactured homes. Space rents in the two big parks are comparable, and vacancy rates for move-in ready units are low. Many of the units in the parks predate 1976, which is when building codes for manufactured units were put in place. The older units are much more likely to suffer from deterioration and deferred maintenance and to have serious health and safety risks. Considering the high demand for housing in Page and the shortage of new units, the limited competition in this subset of the housing market allows park owners to set mobile home space rents and unit rental prices without considering market competition. A key source of competition for mobile home parks in most housing markets is apartments, both subsidized units and lower-cost market-rate units. Apartments typically have similar housing costs for low-income households and renters, but the lack of apartments in Page further exacerbates the lack of market competitors for mobile home spaces and prices, and provides no incentives for park owners to update or improve the units and park infrastructure.



### 3. Background and Existing Conditions

Map 4 – Mobile Home Parks





### 3. Background and Existing Conditions

#### *Perceptions of Mobile Homes and Manufactured Housing*

The current perception of manufactured housing in Page presents a dichotomy of perspectives. Many residents that report residing in mobile homes or manufactured housing report that it is a viable, affordable housing option, but also report severe deferred maintenance and overall poor-quality units. The Page housing condition survey indicates that Rim View Trailer Village and Lake Powell Mobile Home Village both suffer from high incidences of housing problems. Many housing units in those parks need various repairs ranging from window, roofing, and siding repairs to full replacement. Prolonged deferred maintenance ultimately results in units unfit for residence, regardless of how the units are constructed. Mobile homes built before 1976 and older manufactured units never installed on a permanent foundation are particularly vulnerable to deferred maintenance and are more likely to be rendered unlivable from maintenance problems. The contradiction in resident assessments of manufactured homes as viable housing options despite consistent, widespread deferred maintenance indicates that many of the lower-cost units in Page need rehabilitation or repairs. The lack of other housing options means many households are living in substandard or unsafe housing.

#### Economic Trends in Page

Page has a limited economic base, with most of the city's economy founded on two major industries: tourism and the power plant. While there are other industries and employers in the region, the growing role of tourism in the local economy is changing how Page identifies itself and is having direct impacts on the availability and suitability of housing in the city.

#### Growing Tourist Season

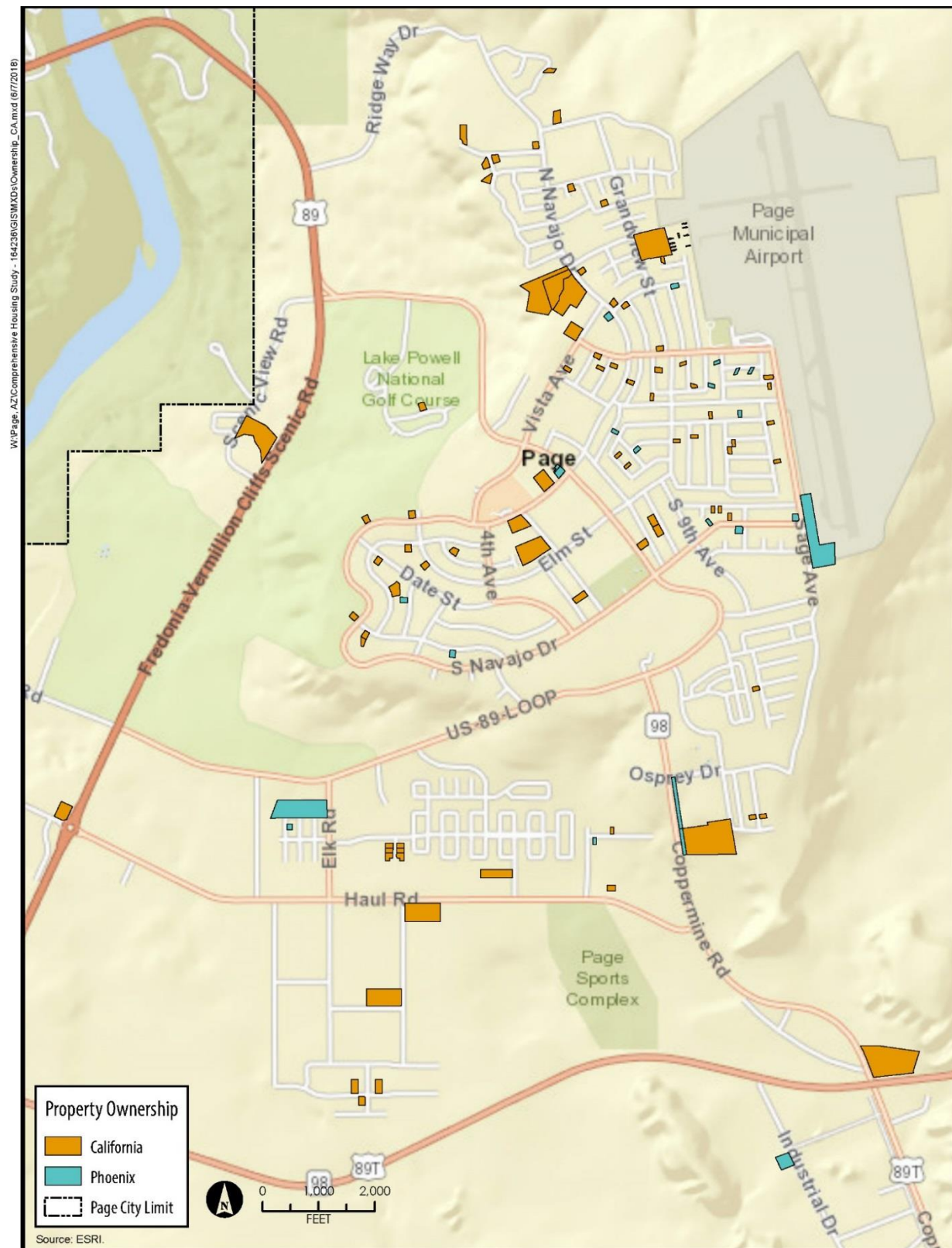
The City of Page promotes the growth of its tourism industry as a source of revenue for the local economy and continues to seek opportunities to strengthen the city's economy via this industry. The focus on tourism growth has cascading impacts on employment opportunities and needs in Page and corresponding impacts on the need for new and more diverse housing stock, both as housing for tourism economy employees and to supplement housing that transitions into the increasingly popular vacation home rental market. Records generated by the Community Development Advisory Board indicate that Page has experienced an increase in tourism attraction in the past few years, with increases in lodging revenues and visitor center activity between 2012 and 2017.

#### *Vacation Homes*

The growth of Page's tourism economy has supported overall growth in the city and is contributing to a shift in the housing market. Maps 5 and 6 depict the housing units and properties (residential and non-residential) that are owned by individuals residing in California, Phoenix, or out of state in general. This type of property ownership in tourist-based economies is often correlated with units used on a seasonal basis or marketed to tourists for short-term occupancy. Residents report that many houses in the city are being converted from year-round homes to seasonal vacation rentals, including Airbnbs or VRBOs. In 2010, approximately 2% of the total housing stock was identified by the ACS as vacant for seasonal, recreational, or occasional use. In 2016, that number had increased to 12% of the total housing stock, an increase of 282 units, and is the result of the growing popularity of online vacation rental platforms. The increased demand for vacation rental units impacts available housing choices for year-round residents seeking housing in Page. In addition, the heightened demand for these properties increases the competition and prices for these units, and contributes to rising housing prices.

### 3. Background and Existing Conditions

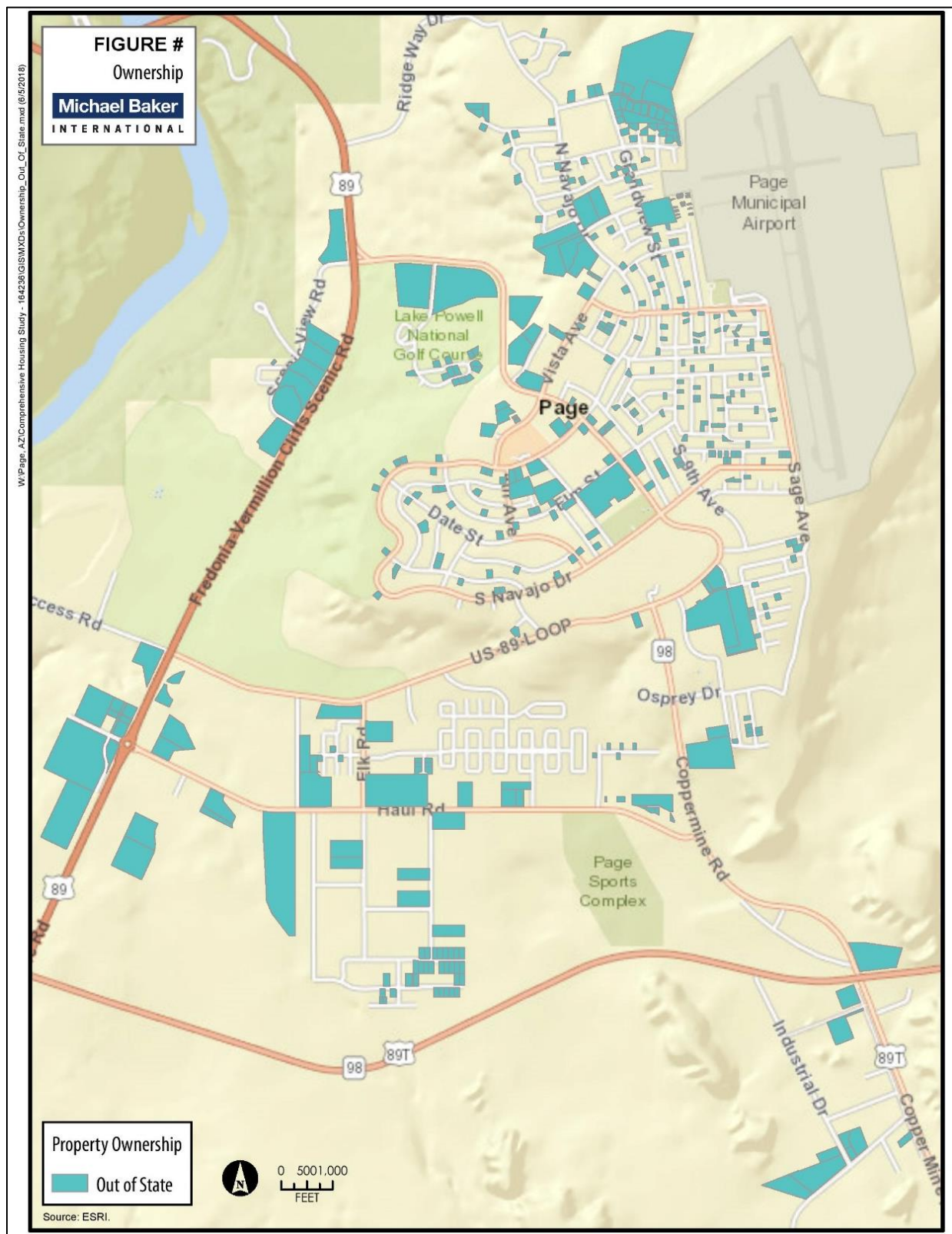
Map 5 – Property Owned by California or Phoenix Residents



Source: Coconino County Parcel Data

### 3. Background and Existing Conditions

Map 6 – Property Owned by Out-of-State Residents



Source: Coconino County Parcel Data



### 3. Background and Existing Conditions

Page does not yet have the vacation rental saturation that leads to serious neighborhood impacts, like noise and trash complaints and parking shortages. Currently most residents have positive opinions of vacation rentals because they incentivize property owners to rehabilitate and modernize their housing units, with special attention to curb appeal. However, Arizona state law significantly reduces the amount of control local governments have in monitoring vacation rentals. As Page's tourist economy continues to evolve, vacation rentals could pose a more significant housing problem.

Currently most tourists visiting Page come for short-term stays (including day visits) to visit the most well-known attractions. Many of these visitors are international and participate in either structured bus tours or self-guided road tours. Both groups tend to favor hotels, which are priced for single and double occupancy and cater to shorter stays (one to three nights). Vacation home rentals are more in demand in tourist destinations where families or large groups get together and stay for multiple nights, and where tourists return on a regular or semi-regular basis. Lake Powell attracts tourists who prefer vacation homes; however, Lake Powell also has a thriving houseboat rental industry, which is direct competition for vacation homes. If Page's tourist economy shifts to attract families or groups for multi-night stays, or attracts more families on a repeat basis, it is very likely that the vacation home rental demand will rise and begin to more seriously impact the available housing stock.

#### *Lengthening Tourist Season*

In addition to heightened tourism activity during the peak season, Page is also experiencing an extension in the overall length of the tourism season. According to the Community Development Advisory Board, each year between 2012 and 2017 observed increased activity each month as compared to the year prior. As visitation increases throughout the year, the demands of the tourism industry also rise to meet the needs of visitors via lodging, entertainment, and food.

#### *More Tourists*

The increase in tourism to the area is impacting the city in diverse ways, as the total population of Page on a given night may be several times the total population of permanent residents. As visitors continue to stream into Page at higher rates, the number of people strains existing facilities and infrastructure. Streets become busier, businesses experience a higher flow of traffic, and utilities must accommodate a greater load. The Page Visitor Center alone has experienced an increase in call-in and walk-in visitors by an average rate of 14.3% since 2013.

#### *New Hotels*

With more people visiting Page to enjoy the local attractions and amenities, the demand for lodging has grown. In 2017, the Community Development Advisory Board reports that the lodging tax revenue for August in Page averaged an 18% increase each year, and the lodging tax revenue for 2017 was projected to surpass \$4 million. The increase in lodging tax revenue reflects the increased use of lodging and hotels in Page.

Page has added approximately six new or relatively new hotels to help address the growing demand for vacation lodging: the Baymont by Wyndham, the Sleep Inn & Suites, the Hampton Inn & Suites, the Hyatt, the La Quinta Inn, and Wingate by Wyndham (which was under construction during this study). These accommodations are all located along or near Highway 89 on the western side of Page and are surrounded by convenience stores, fast-food restaurants, and other amenities for visitors.

### 3. Background and Existing Conditions

In addition to the heightened demand for more vacation accommodations, new hotels put pressure on the existing labor market for service industry staff. Hotels report being understaffed due to the lack of available labor in Page. This shortage is partially attributed to the lack of housing options for service industry employees in the city. The workforce for this labor is typically transient because of the seasonality of the industry, but there are not many housing options in Page available for seasonal workers, particularly seasonal workers who earn service industry wages. The shortage of affordable housing for seasonal employees limits the availability and quantity of people able to live and work in the city to fill the demands of the service industry.

#### *Restaurants and Local Attractions*

One major gap in Page's growing tourist economy is the capacity of local restaurants and the lack of secondary attractions, like shopping and entertainment venues. The growing influx of visitors in Page burdens existing restaurants, which have limited capacity and must compete with the hotels for staff. Restaurants and bars were the third largest generator of sales tax revenue, increasing by 10.8% of total sale tax revenue from the previous year, for the city in August 2017. The growth of the tourism industry must be reflected in a similar increase in a diverse range of restaurants to cater to the preferences and needs of visitors in Page.

According to the Economic Strategic Plan for the Lake Powell Region, the second most popular tourism activity in the region, after visiting Grand Canyon National Park, is dining out, and restaurants frequently have long waits during peak hours.

#### *Service Industry Labor Shortage*

##### *Help Wanted Everywhere*

The increased tourism industry in Page calls for a larger supply of service industry labor to accommodate visitor needs. The service industry is currently experiencing a severe labor shortage as the community adjusts to the surging demands of the growing tourist economy. The lack of available and reliable service industry labor prevents restaurants, hotels, and other services from expanding and adding capacity, and is a risk factor for any new businesses looking to open in Page. The community engagement team reported observing "Help Wanted!" signs in restaurants, gas stations, and lodging facilities across the city. In 2017, the Community Development Advisory Board reported that the Services, Arts, and Entertainment Industry sector sales tax revenue rose by 96.4% since August of the previous year. In contrast, the US Census Bureau trends noted an 18% decrease in arts, entertainment, and recreation, and accommodation and food service jobs between 2016 and 2017. These increases demonstrate the dichotomy between the demand for services and the supply of labor to meet those needs.

A significant issue impacting employers in Page is the high turnover in service industry labor, which is a response to the lower wages, less than optimal working conditions, and the overabundance of jobs. Service industry jobs do not pay enough to support the high housing and living costs in Page. Most service industry jobs do not offer paths for promotion or increased wages, so there is little incentive for employees to stay in positions or with the same employer. Households have evolved to respond to this situation by tolerating lower quality housing and by sharing units, with multiple people or families sharing housing and pooling wages to cover costs. Employment challenges in Page are discussed in Chapter 4.

### 3. Background and Existing Conditions

#### Lack of Economic Diversity

While the increased focus on the tourism industry in Page has led to positive increases in overall economic growth, the city must be cautious in relying on tourism as the primary economic driver of local prosperity. In addition, while the tourism industry generates profits in Page annually, the revenue from this sector is cyclical, as it peaks in August before significantly decreasing in demand during the off-season. While Page seeks to strengthen the local economy via tourism, the city must continue to promote other industries to ensure the resiliency of the local economy in case of any unpredicted changes in the tourism market. Promoting a local economy that balances the priorities of different industries and encourages economic diversification will ensure the health and longevity of Page's economy.

#### Future Challenges

##### Navajo Generating Station Closure

The second largest employer in Page, the Navajo Generating Station (NGS) is set to discontinue operations by the close of 2019, and the plant is scheduled to be decommissioned thereafter. This plant has been a cornerstone of the local economy for the past four decades since it opened in 1974. The permanent workforce at NGS will gradually decrease through 2019 to minimize abrupt shocks to the local economy and to ensure the retention and redeployment commitments for the workforce are met. As the permanent workforce declines, temporary workers will be hired to fill the positions until the plant ceases operations in 2019. The plant will thereafter be decommissioned over the following few years, and SRP will continue to employ temporary workers for this process. The impact of the NGS's closure will affect residents, families, and businesses. The Navajo Generating Station is a major contributor to local organizations and provides good-paying jobs to a substantial portion of the local workforce. The plant also supports community programs, contributes to charitable organizations and sponsors an annual cleanup event for Page, among many other efforts. The closure poses future challenges to Page to remain resilient to this disruption to the local economy, and the City will need to identify alternatives to the community-oriented events and programs previously sponsored by the NGS.



# Chapter 4 – Demographic, Economic, and Housing Analysis

## Introduction

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Page is currently experiencing a housing shortage. However, the shortage is not the only factor impacting housing in the city. Other challenges, such as a lack of housing type diversity, limited housing choice, and a mismatch between the available housing stock and the actual community needs, can exacerbate the housing shortage. This chapter uses the data collected through the various efforts described in the methodology to analyze demographics, economics and employment, and the current housing supply to identify mismatches between the existing housing stock and the city's current and future housing needs.

The following topics are analyzed in this section:

- Current demographics, including the average age, income, and education level of city residents.
- Characteristics of the existing housing supply.
- Affordability of the existing housing stock relative to the city's demographics.
- Page's demographics, housing supply, and affordability in comparison to the regional community including Coconino County and Arizona as a whole.
- Employment in the city, including an overview of major employment centers and employees' commuting patterns.

This information was collected primarily from public data sources, such as the US Census Bureau, as well as through local stakeholder interviews, a public community workshop, and a survey of area residents and employees. Specific data sources are cited throughout the report, and a summary of survey responses is presented in **Appendix 1**.

## Demographic Data and Trends Analysis

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Page is a small community with unique characteristics compared to Coconino County and the state of Arizona. This section of the housing study evaluates Page's demographic trends in comparison to the county and the state to identify the unique, distinct aspects of the community that distinguish it from other places. This information can be used to discern specific housing needs or under-housed populations and can help direct the City in identifying housing priorities. As of the 2016 American Community Survey (ACS), the US Census Bureau reported that 7,532 people resided in Page, with a total of 2,357 households. The 2016 ACS data also revealed that:

- Page has a median household income of \$59,850, when adjusted for inflation, which is slightly higher than the median household incomes for both Coconino County at \$51,106 and Arizona overall at \$51,340.
- The population is educated, with 87.6% of residents possessing at least a high school diploma, including 20.7% of residents with a bachelor's degree or higher.

#### 4. Demographic, Economic, and Housing Analysis

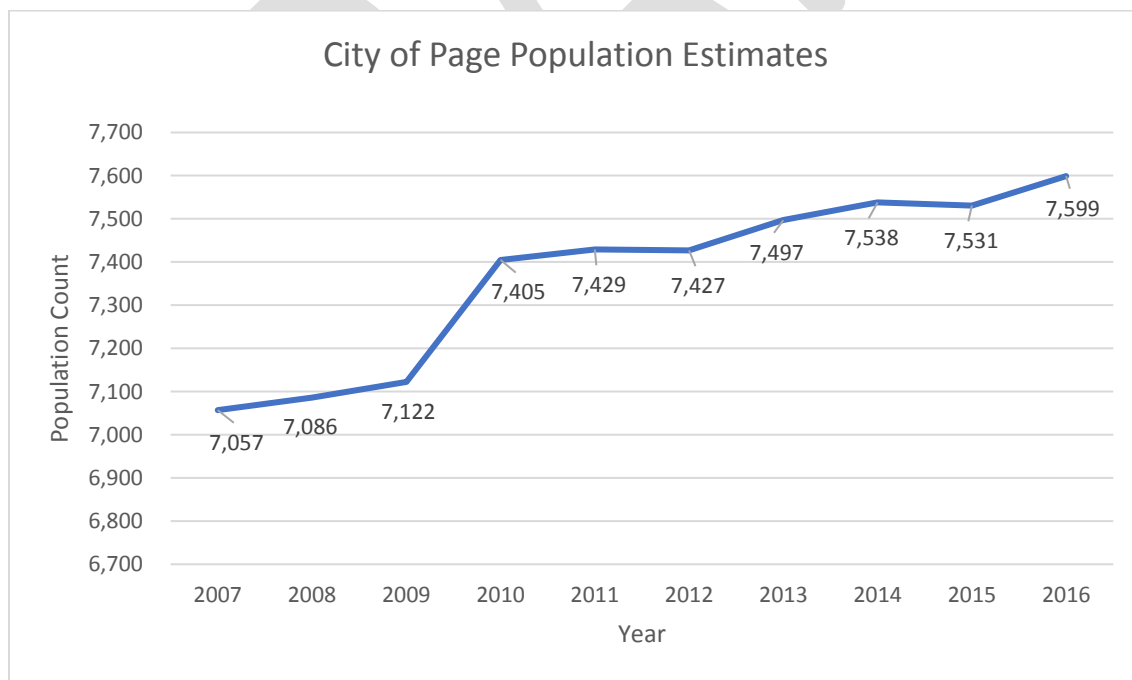
- The two largest percentage groups in terms of racial and ethnic makeup are those who identify as white (48.8%) and as American Indian or Alaska Native (40.9%).
- The median age is 32.1 years, slightly higher than that in Coconino County at 30.7 years and significantly lower than the median in the state of Arizona at 37.1 years.
- Approximately 16.3% of the non-institutionalized population of Page lives with a disability.

### Population Trends

It should be noted that population estimates from the American Community Survey used in this study are slightly different from those estimated by the Arizona Office of Economic Opportunity, but this study mainly examines ACS estimates because the ACS generally provides greater and more consistent amounts of data. Population projections in this section, however, are sourced from the Arizona Office of Economic Opportunity because the ACS does not provide this data. As shown in **Figure 1**, the city's population steadily increased through 2016, with a slightly sharper increase after 2010. Page has experienced less population growth than the county or state over the past decade. While growth in Page has been relatively gradual over the past two decades, increasing by about 1% per year on average, both Coconino County and the state of Arizona experienced more substantial growth from 2000 to 2016. Overall, the city grew by 10.6% between 2000 and 2016, while Coconino County experienced an 18.7% change and Arizona's population increased by 31.1%. Research and interviews suggest that the increase in population in Page is attributable to employment opportunities, particularly higher-paying energy jobs in the city.

**Arizona Office of Economic Opportunity 2016 Population Estimate: 7,599**

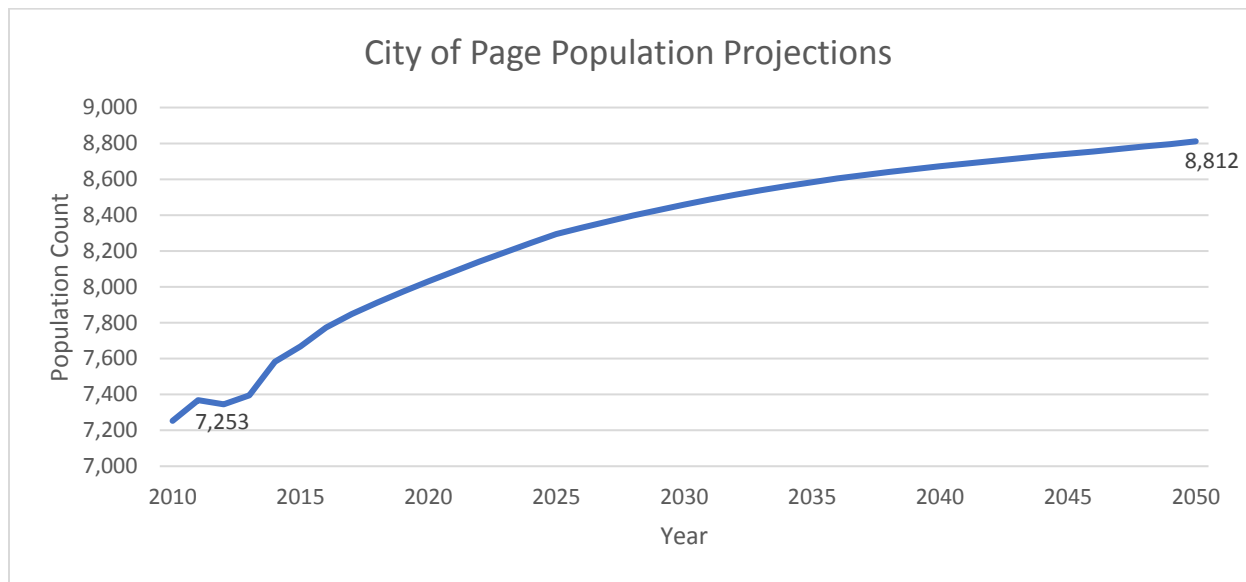
**Figure 1. Population Trends (2007–2016)**



*Source: American Community Survey 2012–2016 Estimates, Table DP05*

#### 4. Demographic, Economic, and Housing Analysis

**Figure 2. Population Projections (2010–2050)**



*Source: Arizona Office of Economic Opportunity, Coconino County - Medium Series, 2015–2050 Projections*

**Figure 2** identifies the changes in population in Page predicted through 2050 based on an analysis of past, current, and projected demographic trends by the Arizona Office of Economic Opportunity. Historic trends in Page demonstrate a spike in population growth at the city’s incorporation before leveling off in recent decades. The projections predict a steady but gradual increase in population through 2050.

It is important to note that these predictions do not account for the closure of the NGS, which is expected to significantly impact the community due to its large economic presence in the region, and the number of people currently employed. At its peak, the NGS employed more than 500 people. Permanent workforce reduction began in 2017, and in mid-2018 NGS employs approximately 300 permanent employees and 200 temporary employees. As the second-largest employer in the city, the closure of the NGS will impact more than just the employees and their families since other portions of the city’s economy serve the needs of NGS employees. However, the NGS’s proposal for closure is phased to focus on employee retention and employee relocation prior to the station’s decommissioning to minimize abrupt impacts. Nonetheless, the closure will likely impact the types of jobs available in the community and shift the trends in population growth as different employment opportunities arise.

The NGS closure presents a unique challenge in addressing current and future housing needs in Page. NGS employees have been given the choice either to retain their employment by relocating to another Salt River Project facility or to leave employment (either through retirement or resignation). NGS employees who elect to relocate must decide whether to retain their housing in Page. During interviews, some employees responded that due to Page’s proximity to the Navajo Nation, and other family ties, they would keep their housing in Page, allowing their families to stay, or would rent their homes either on the short- or long-term rental market, with the goal to return to Page full time on retirement. Other employees responded that they intended to retire or resign and stay in Page to seek other opportunities. Still others were undecided. About half of the NGS employees interviewed and surveyed expected to still live in Page in 5 or 10 years. However, employees also expressed concern about future employment opportunities in the city. There is currently no industry in Page that compares to the NGS for wages and benefits,

## 4. Demographic, Economic, and Housing Analysis

and NGS employees who are not ready for retirement but who also do not want to relocate will be faced with fewer economic opportunities and reduced incomes in the current economy.

While existing permanent NGS employees will be deciding whether to stay in Page or relocate to another area, the NGS will bring in temporary workers on a contract basis to help operate and then decommission the plant. These temporary workers will be expected to work on a limited-term basis. Temporary employment is not conducive to purchasing a home, and many of these workers will be single or have families living in other areas. They will need temporary housing, likely rental units or other short-term housing options. While the net impact of the NGS closure on the city's population will be a long-term drop, adding a number of mostly ownership housing units into the market, the influx of temporary workers over the next few years will likely result in a substantial but temporary population increase, further worsening the city's housing shortage. The gradual decline of the NGS permanent workforce and resulting relocation of that workforce will likely work to mitigate or prevent a housing recession, where a high number of housing units are suddenly added to the market, driving down property values for ownership units and destabilizing owner-occupied real estate in Page. At the same time, the demand for additional rental and temporary units will likely put pressure on the already overburdened rental market, increasing rental prices and affecting the more affordable rental housing for lower-income households.

### Age of Residents

The 2016 American Community Survey estimates were analyzed at the household level to understand the current breakdown by age and income of existing Page residents. Households were segmented by age into the following cohorts, based largely on the relationship each age group typically has with the housing market:

- Young Renters and First-Time Homebuyers: householders under age 25
- Young and Middle-Age Homebuyers: householders age 25 through 44
- Empty Nester Homeowners and Trade-Up Homebuyers: householders age 45 through 64
- Young Senior Homeowners and Older Seniors with Special Needs: householders age 65 and older

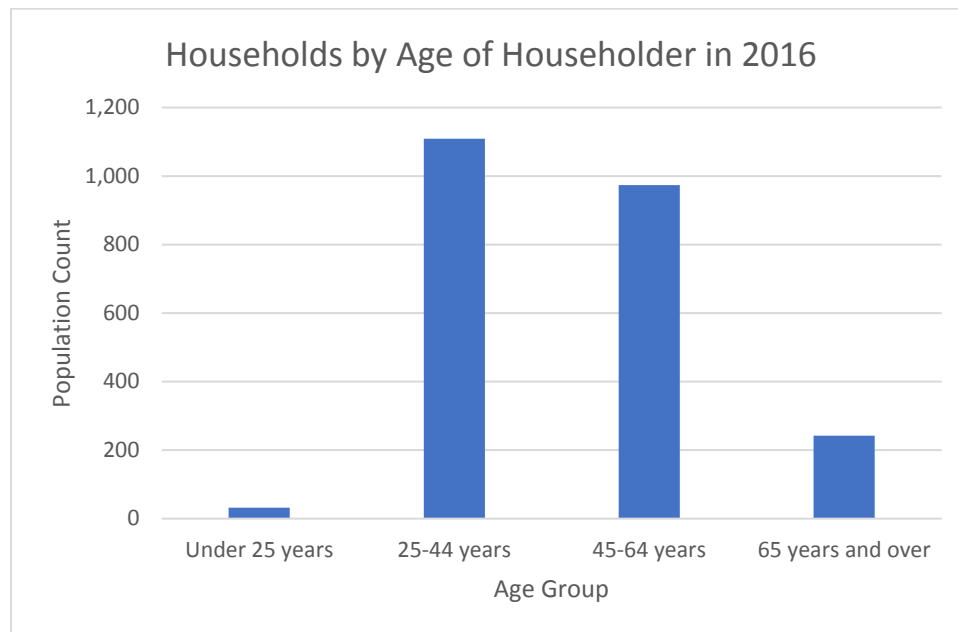
Households are categorized into these cohorts because each age group typically has different housing needs. Young renters and homebuyers are usually looking for smaller, lower-cost units. Their housing needs change as they age and form family groups, which generally need larger housing units with room for children and access to schools and parks. Households shrink again as children leave for college or start to form their own families, and empty nesters typically look for smaller housing units. Housing needs change again as people age and physical disabilities become more common. Seniors often look for housing that is accessible, easy to maintain, and community oriented to provide support and prevent isolation.

**Figure 3** presents the total number of estimated households by age cohort and income in 2016. The analysis revealed the following:

- Almost half of the households in Page comprise Young and Middle-Age Homeowners (47.1%), and Empty Nester Homeowners and Trade-Up Homebuyers comprise another large portion of households (41.3%). The remaining quarter is divided between Young Renters and First-Time Homebuyers (1.4%) and Young Senior Homeowners and Older Seniors with Special Needs (10.3%).

#### 4. Demographic, Economic, and Housing Analysis

**Figure 3. Households by Age of Householder**



*Source: American Community Survey 2012–2016 Estimates, Table B19037*

In addition to the types of households, different age cohorts in the general population are also indicative of population trends and needs in terms of housing and other services. The two cohorts with the most unique needs are youth under the age of 18 and seniors over the age of 65.

The following analysis of data from the American Community Survey examines the changes with each age group in reference to the total population at the local, regional, and state level to identify trends in Page:

- The youth age group has experienced a significant increase in population in Page, especially when compared to regional trends, experiencing a 17.4% increase in total population between 2000 and 2016. About 33.9% of the total population of Page is 18 or younger. Coconino County has experienced a continuous decrease in the percentage of total population under the age of 18, with a decrease of 10% between 2000 to 2016. Approximately 21.7% of the county population is in this age group. State trends mirror those in Page, reflecting a steady increase in the youth population with an 18.5% increase between 2000 and 2016. About 24% of the total state population is in the youth age group.
- The senior population in Page is not representative of the senior population in the rest of Arizona. Only 5.6% of the total population in Page is over the age of 65, compared with 10.8% in Coconino County and 15.9% statewide. Between 2000 and 2016, the senior population in Page decreased by 1.4%. In comparison, Coconino County has undergone significant, steady growth of the senior population, with an increase of 84.4% in the number of people over 65. Arizona sustained a total net increase of 60.2% in the senior population between 2000 and 2016.

Overall, trends indicate that Page has a high demand for family housing due to the large increase in the youth population and the majority of households headed by those aged 25 to 64. In contrast, the senior population in the city is shrinking. This loss of seniors is likely indicative of three factors: (1) the cost of living in Page is high, and housing costs have increased, putting pressure on households with fixed incomes, and pushing them out of the

## 4. Demographic, Economic, and Housing Analysis

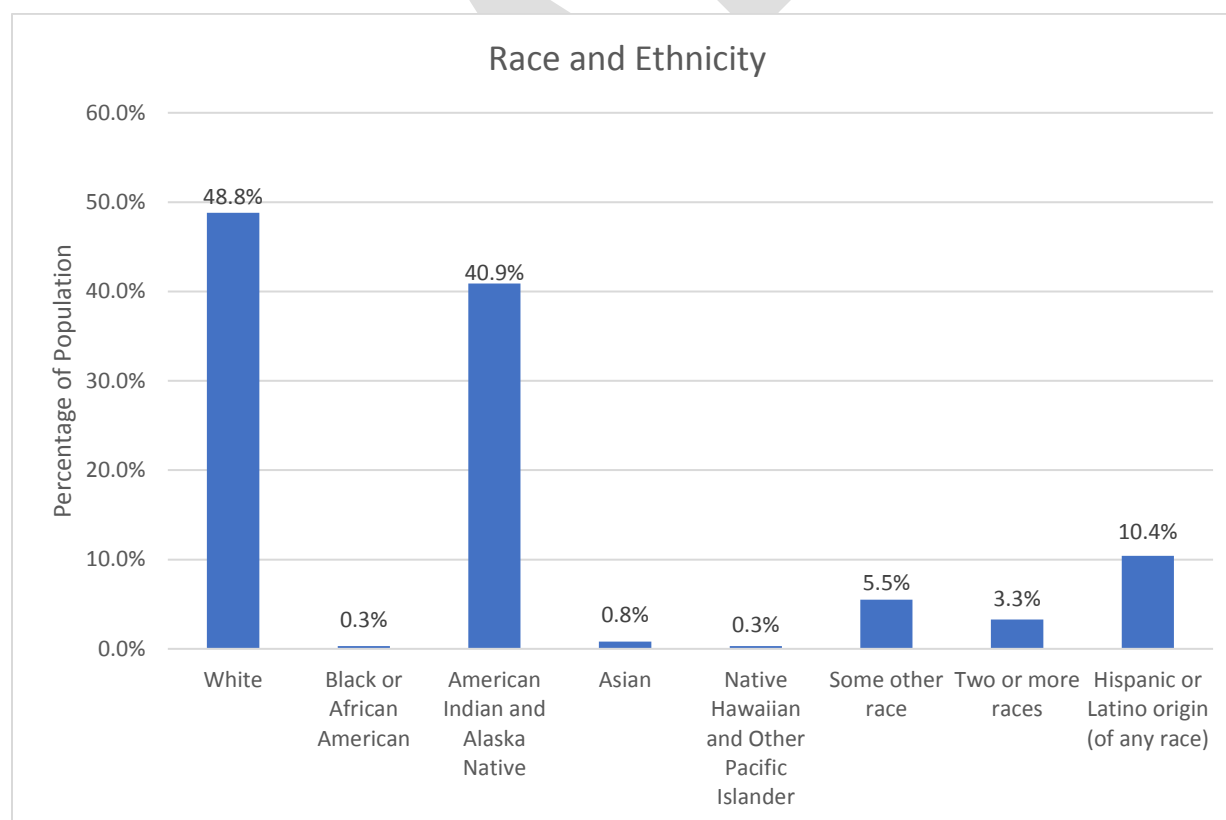
community; (2) there is a lack of senior housing, particularly housing with assisted living options, in the city, which forces residents with more intensive care needs to seek housing outside the community; and (3) there is limited medical care in Page, and seniors with complex or compound healthcare needs must travel to Flagstaff or Phoenix for care. Travel costs for healthcare, combined with higher housing costs and fixed incomes, can force seniors out of the community.

### Race and Ethnicity

The US Census tracks race and ethnicity separately. The Census currently only tracks Hispanic or Latino ethnicities, but the race categories in the Census have become very nuanced to capture the growing multiracial populations. The two most common racial groups Page residents identify as are white and American Indian or Alaska Native. The data indicates that there are few other racial groups represented in the city's population.

- 48.8% of the population identifies as white.
- 40.9% of the population identifies as American Indian and Alaska Native.
- 10.4% of the population is of Hispanic or Latino origin.
- 5.5% of the population identifies as some other race, and 0.8% of the population is Asian.

**Figure 4. Race and Ethnic Composition**



Source: American Community Survey 2012–2016 Estimates, Table S0601

Note: The US Census Bureau accounts for race and ethnicity differently in the American Community Survey and ethnicity is a subset of race, hence this chart total exceeds 100%.

#### 4. Demographic, Economic, and Housing Analysis

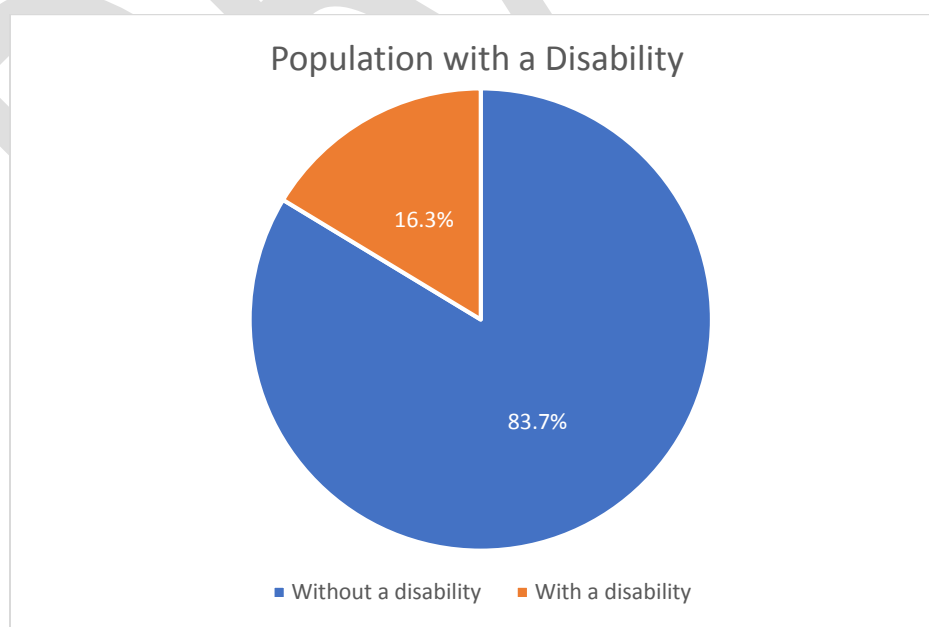
Race and ethnic composition in Page deviates from that in the state and county. Approximately 28.5% of Coconino County residents and 5.5% of Arizona residents identify as Native American. Conversely, 13.7% and 30.5% of county and state residents respectively identify as Hispanic or Latino. Page's proximity to the Navajo Nation and *presence* as a primary employment center in the Glen Canyon region explains the population differences. Different cultures approach housing differently. While some cultures normalize single-family/single-residence households, others prefer multigenerational households or shared residences. The City should consider cultural preferences in considering how to prioritize housing needs. The race and ethnicity composition, in combination with the high number of youth in the population, indicates a large number of Native American families with children. While only 15.3% of survey respondents identified as Native American, 79% of those respondents identified detached single-family housing as their preference, 8% preferred mobile homes, and 4% preferred apartments and townhomes, respectively. The remaining 9% preferred senior housing, condominium housing, or temporary housing. Currently, 43% of Native Americans surveyed live in mobile homes or manufactured housing, 42% live in single-family homes, 5% live in apartments, 4% live in townhomes, and 3% live in recreational vehicles. The remaining 3% live in condominiums, storage facilities, or other.

### Persons with a Disability

As shown in **Figure 5**, 16.3% of the population in Page has a disability. For comparison, 11.5% of the population of Coconino County and 12.6% of the population of Arizona has a disability. Of that group, the 2016 ACS data also revealed that the Page community faces a diverse range of disability types, with major trends as follows:

- 6.5% of the population is visually impaired, while 6.8% has a cognitive difficulty.
- 4.7% of the population has difficulty hearing, and 4.6% has an ambulatory difficulty.
- The smallest two cohorts of the population have difficulty with independent living (4.1%) or self-care (1.9%).

**Figure 5. Population with a Disability**

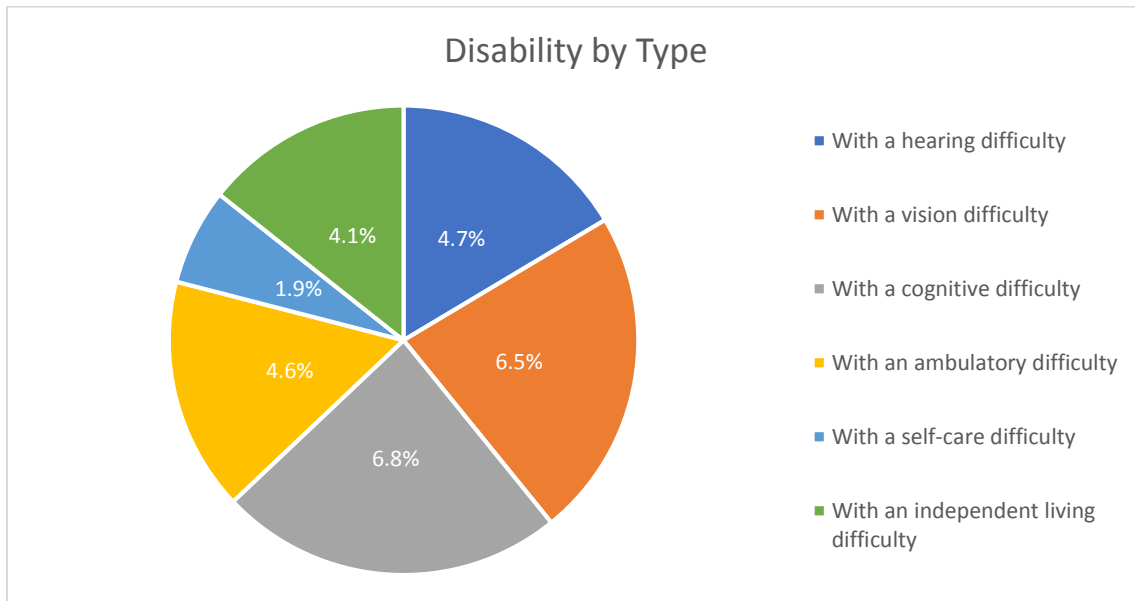


Source: American Community Survey 2012–2016 Estimates, Table S1810



#### 4. Demographic, Economic, and Housing Analysis

**Figure 6. Disability by Type**



Source: American Community Survey 2012–2016 Estimates, Table S1810

*NOTE: Many persons with a disability report more than one disability. For example, it is common for seniors to report a hearing difficulty, a vision difficulty, and an ambulatory difficulty. As a result, the total percentage of disabilities by type exceeds the percentage of the population with a disability.*

A higher proportion of the population in Page experiences a disability than in either the county or the state. Combined with the lower percentage of seniors in the population, it is reasonable to assume that a higher percentage of the non-senior population in Page reports a disability. According to the ACS, 11.3% of persons with a disability in Page are 5 to 17 years old, 20.7% are 18 to 34, and 38.8% are 35 to 64. These ratios are generally 50% to 80% higher than the same age groups in the county or the state. This data indicates a distinct need for housing suitable for persons with a disability in Page. The housing section of this chapter has further discussion on housing accessibility.

### Educational Attainment

The 2016 ACS estimates *regarding* educational attainment present the following data about the people residing in Page:

- Page has a slightly higher percentage of the population graduating high school than the county and state averages at 87.6%. compared to 86.7% and 86.5% respectively, but a significantly lower segment of the population attaining a bachelor's degree or higher at 20.7% compared to 27.5% and 28%, respectively.

While Page has high school graduation rates comparable to those in the county and the state, the lagging college graduation rate *indicates* a lack of employment opportunities requiring higher education in Page. As the city's economy focuses more on tourism and with the closure of the NGS, it is very likely that the educational attainment gap in Page will widen. Efforts to diversify the economy and attract new businesses and partnerships with Coconino Community College to improve college access will help improve the overall educational attainment in *Page*. However, housing plays a large role in the success of those efforts and partnerships. The city lacks housing appropriate for professionals and the educated workforce. One of the most repeated concerns is the lack of housing for teachers

#### 4. Demographic, Economic, and Housing Analysis

employed in the Page Unified School District. Interviews and community outreach reported that teachers in Page are sharing housing, living in recreational vehicles, and dealing with constant housing instability. The lack of housing makes teacher retention very difficult and has adversely impacted the school district across multiple metrics, including student performance. Teachers choose to work in Page for a year or two and then move to other areas where housing is more available and affordable. This rapid turnover does not allow teachers to vest in the community and prevents teachers from developing relationships with families and community members who help youth to thrive academically.

The lack of professional housing does not only impact teachers. All of the major employers interviewed during the outreach process identified a lack of housing as a major impediment to hiring and retaining qualified professionals, including medical staff, media professionals, and public employees. Newer City staff all reported major challenges in finding appropriate housing when they moved to Page, with some staff living apart from their families for extended periods, and months-long housing searches.

# Economic Indicators

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The following section builds on the demographic analysis completed above to provide a deeper understanding of the housing challenges facing Page.

## Income

The median household income in Page is \$59,850, which is slightly higher than the county and state household annual median incomes at \$51,106 and \$51,340 respectively. Table 2 presents per capita and median household income information from 2010 through 2016. Per capita income increased by 19.5% during that time while median household income increased by about 18.8%. However, as evidenced in the table, that increase has not been incremental. Median incomes jumped in 2012 before falling in 2014 and increasing again in 2016. The volatility in incomes shows how vulnerable Page is to shifts in the economy, including the growing tourism industry, which adds net jobs but depresses median incomes because of the lower wages compared to the wages paid at the NGS.

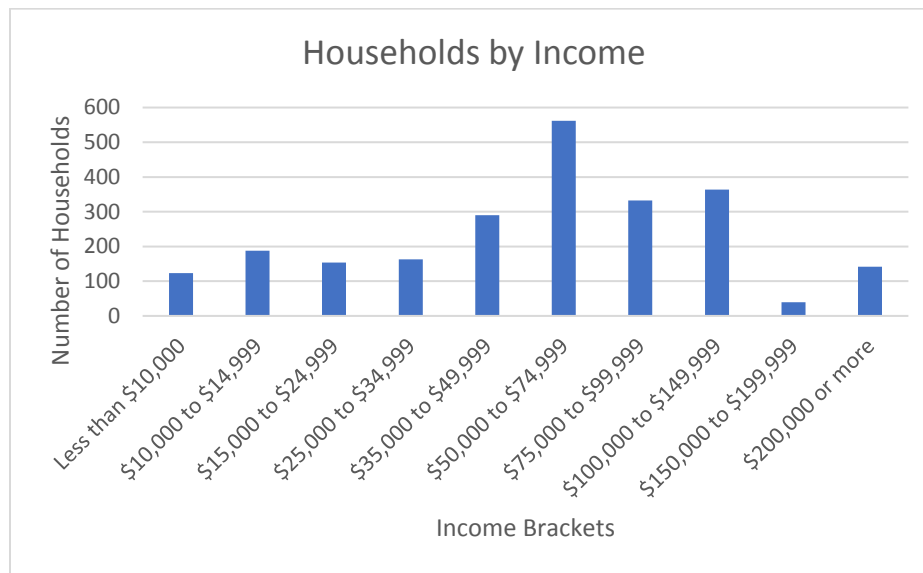
As shown in **Figure 7**, the largest number of Page households fall into the \$50,000 to \$74,999 income bracket. **Table 2** lists per capita income and median household income in Page, per the ACS.

**Figure 8** presents the total number of estimated households by age cohort and income in 2016. The analysis revealed the following about the households in Page:

- Approximately 32 householders (1.4%) are under the age of 25. This group is composed entirely of renters, according to the ACS sample data.
- Householders aged 25 to 44 are a large group and more diverse in earnings than other age cohorts. Households in this group typically comprise young and middle-aged individuals and are representative of households that often look to purchase homes. Approximately 47.2% of this cohort earns more than \$60,000 annually, including 12.1% that earns between \$100,000 and \$150,000 per year. Roughly 7.3% of households in this age range earn more than \$150,000 per year.
- Householders in Page aged 45 to 64 are typically more affluent than other age cohorts. This demographic typically consists of empty nest homeowners and trade-up homebuyers. Almost half (48.8%) of householders in this age cohort earn at least \$60,000 annually. In addition, 27.4% of householders earn more than \$100,000 annually, including 6.8% who earn more than \$150,000.
- Page has a small aging population. A significant portion of this group (approximately 8.7%) are lower income, earning less than \$25,000 annually. However, a majority of this age cohort (60.3%) earns more than \$60,000 annually.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 7. Households by Income**



Source: American Community Survey 2012–2016 Estimates, Table B19037

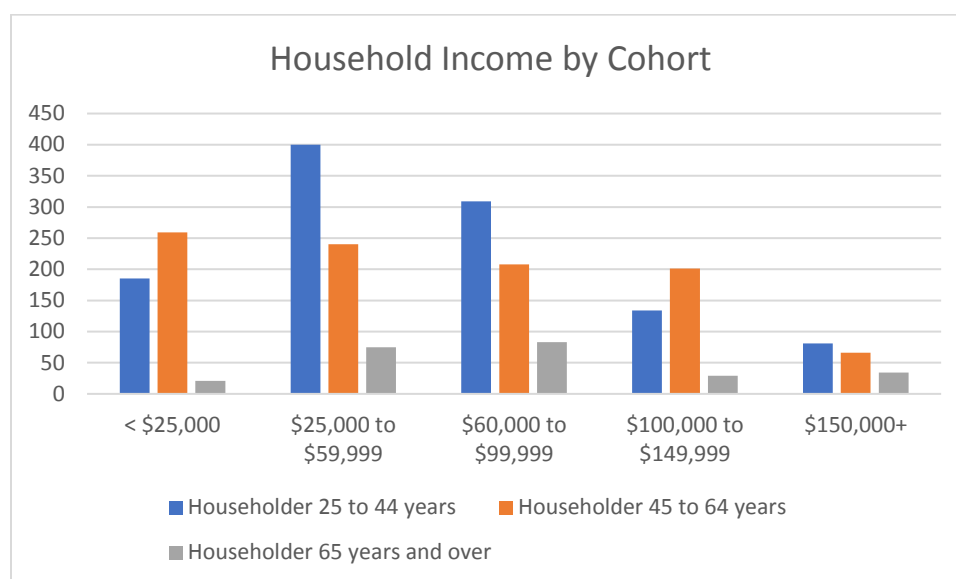
**Table 2. Per Capita Income and Median Household Income (2010–2016)**

Year	Per Capita Income	Median Household Income
2016	\$26,400	\$59,850
2015	\$24,338	\$57,161
2014	\$22,427	\$54,208
2013	\$26,406	\$61,748
2012	\$27,592	\$61,765
2011	\$24,258	\$57,406
2010	\$22,078	\$50,347

Source: American Community Survey 2006–2010 through 2012–2016 Estimates, Table DP03

#### 4. Demographic, Economic, and Housing Analysis

**Figure 8. Household Income by Cohort**



*Source: American Community Survey 2012–2016 Estimates, Table B19037*

The income data confirms analysis regarding household demographics. First, the small number of senior household earning less than \$25,000 annually combined with the smaller population of seniors overall indicates that Page is not affordable for low-income seniors. Given the lack of affordable senior housing, low-income seniors are being displaced. Second, while the 25- to 44-year-old cohort is strongly represented in the middle income brackets, a large number of households in the 45 to 64 age bracket earn less than \$25,000. This age bracket includes households with children and early retirees. It also includes a high proportion of the persons with disabilities. The analysis indicates there is an opportunity gap for these households and may indicate a need for job training services or other community support services.

When comparing Page to the greater area, both mean and median household incomes are greater than averages for Coconino County and Arizona (**Table 3**). The median income in the city is approximately \$8,000 more than both the county and state averages, indicating a generally higher level of income among all residents in Page. The average or mean income in Page is far greater (\$18,015 more) than the median or middle income. Mean incomes generally skew high; significant gaps frequently indicate income inequality, with a substantial lower-income population pulling the median number down. However, the income disparity between the median and mean incomes is consistent with county and lower than state differences between mean and median household income estimates.

The Navajo Generating Station provides higher-paid employment opportunities in Page when compared to similar communities, and this facility is likely responsible for the city's higher median income when compared to regional data. The closure of the NGS will negatively impact median household incomes in Page. Without a new or different higher wage economic opportunity in the city, median incomes will probably more closely align with those of the county and state figures in the future.

## 4. Demographic, Economic, and Housing Analysis

**Table 3. Median and Mean Incomes**

Income Metrics	Page	Coconino County	Arizona
Median income	\$59,850	\$51,106	\$51,340
Mean income	\$77,865	\$69,267	\$70,432

Source: American Community Survey 2012–2016 Estimates, Table B19037

### Cost Burdened and Extremely Cost Burdened

High housing costs often put lower-income households at risk of falling below the poverty level, which negatively impacts health, education, and economic opportunity. A sufficient supply of affordable housing is essential because it mitigates the risk of being cost-burdened. High housing costs also negatively impact economic development and can stall economic progress due to a lack of housing for employees. There are multiple definitions as to what constitutes low income. The Coconino County Community Needs Assessment Report, completed in 2017, defines low income as up to 200% of the poverty level and identifies that households in that range are generally cost-burdened. The ACS estimates the number of individuals and households living below the poverty line in Page, but this data reference represents a portion of the population experiencing extreme poverty without capturing all low-income individuals or households also suffering from cost burdens. At the same time, the poverty line is based on the cost of food, which is generally heavily subsidized, and households living at or below the poverty line are at severe risk of housing instability, food instability, and health risks.

The US Department of Housing and Urban Development (HUD) uses a more nuanced method of determining income ranges. HUD's income categories are called the HUD Adjusted Median Family Incomes (HAMFI) and are derived by formulas that use US Census data and regional cost of living data to estimate how much income households of different sizes need to meet basic household needs. HUD prepares specific datasets called the Comprehensive Housing Affordability Strategy (CHAS) data that more accurately represents the full range of low-income determinations than the basic poverty data from the ACS. For the purpose of identifying potential state and federal housing resources and to better nuance the analysis with household size, this report uses the HAMFI income ranges instead of poverty limits. The HAMFI for a family of four in Coconino County is \$75,100. **Table 4** shows the HAMFI income ranges by household size in Coconino County in 2018.

**Table 4. HAMFI Income Ranges, Coconino County**

FY 2018 Income Limit Category	Persons in Family							
	1	2	3	4	5	6	7	8
Extremely Low (30%)	\$14,700	\$16,800	\$20,780	<b>\$25,100</b>	\$29,420	\$33,740	\$38,060	\$42,380
Very Low (50%)	\$24,500	\$28,000	\$31,500	<b>\$35,000</b>	\$37,800	\$40,600	\$43,400	\$46,200
Low (80%)	\$39,200	\$44,800	\$50,400	<b>\$56,000</b>	\$60,500	\$65,000	\$69,450	\$73,950

Source: HUD 2018 Income Limits

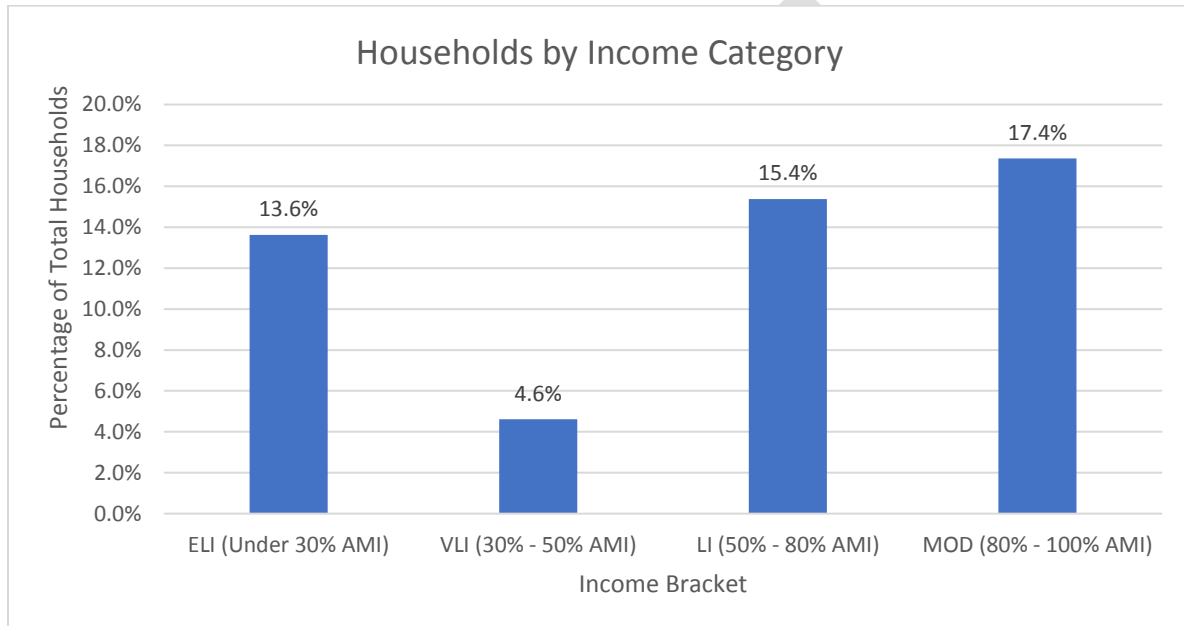
HUD's CHAS dataset lags two years behind US Census data; however, because the dataset is designed to align household size to actual incomes, it can provide a more detailed understanding of the relationship between household

#### 4. Demographic, Economic, and Housing Analysis

incomes and housing costs in Page. Looking specifically at low-income households in the city, certain trends from CHAS data emerge over time.

- More than one-third of families are low-income, earning less than 80% of HAMFI.
- Almost 40% of extremely low-income families have children under the age of 6, and two-thirds of very low-income households have children under the age of 6.
- Householders over the age of 62 years comprise approximately one-fifth of low-income households.

**Figure 9. Low- and Moderate-Income Households as a Percentage of the Total Population**

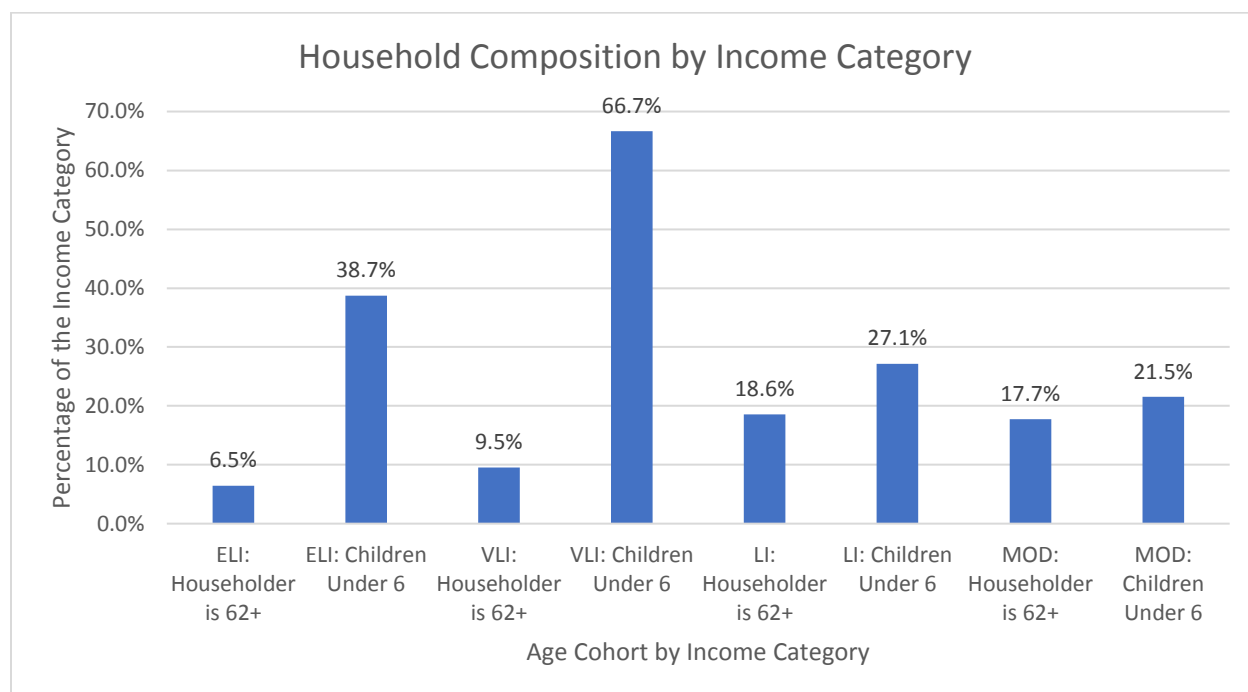


Source: Comprehensive Housing Affordability Strategy (CHAS) 2010–2014, Table 5



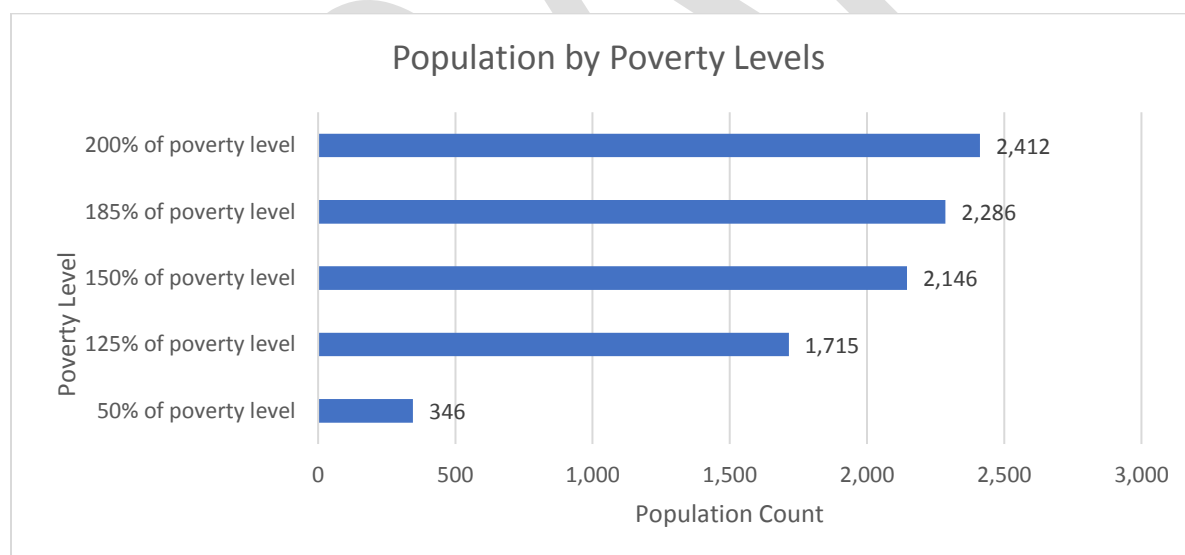
#### 4. Demographic, Economic, and Housing Analysis

**Figure 10. Vulnerable Age Cohorts as a Percentage of Income Category**



Source: Comprehensive Housing Affordability Strategy (CHAS) 2010–2014, Tables 10 and 13

**Figure 11. All Individuals with Incomes Below Poverty Levels**



Source: American Community Survey 2012–2016 Estimates, Table S1701

Lower-income families are at higher risk of housing instability and when incomes are considered in combination with the high cost of living, can be vulnerable to displacement and substandard housing conditions. Lower-income families with young children are particularly vulnerable, and severe economic instability in early childhood has been correlated with lower academic performance, health problems, and overall reduced economic opportunity. These impacts are felt throughout the community, particularly small communities like Page, and are symptomized by lower test scores and school ratings, poor property maintenance, unsafe housing and neighborhoods, a lack of modern and

## 4. Demographic, Economic, and Housing Analysis

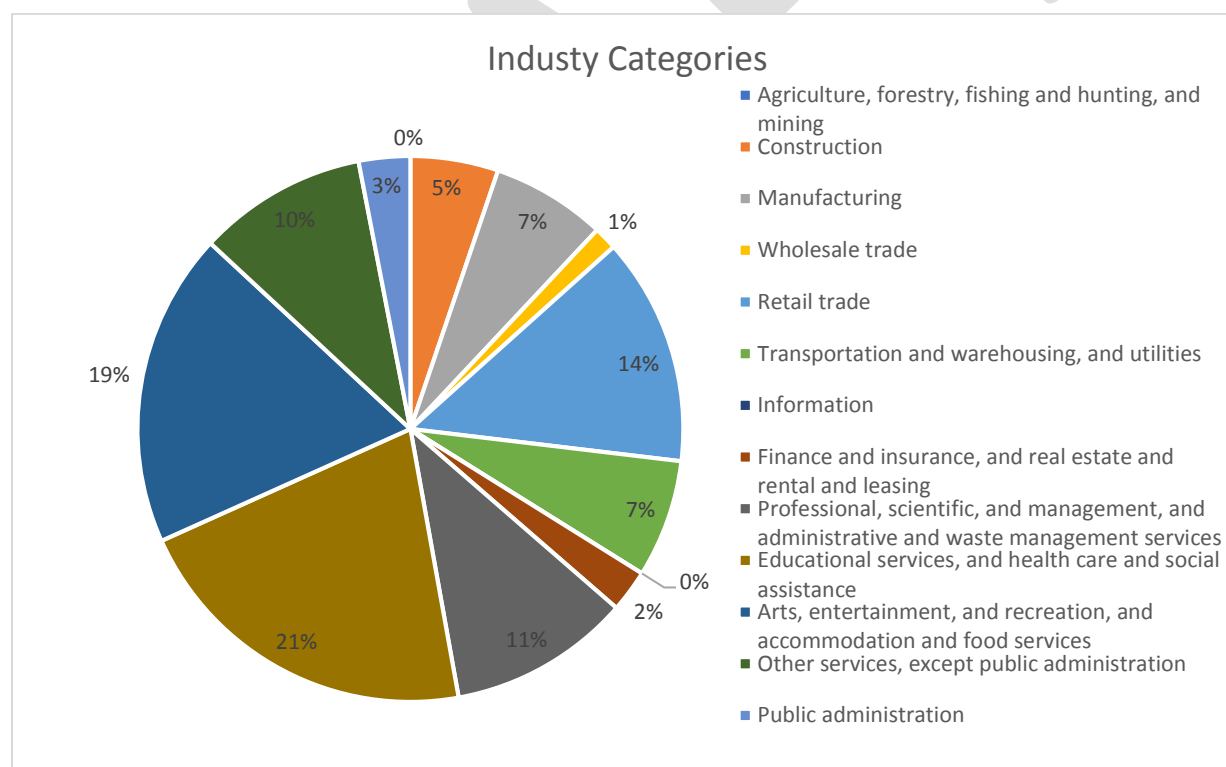
well-maintained community amenities, higher public health costs, and overall reduced quality of life. Addressing housing instability early can help prevent long-term negative externalities from impacting Page.

### Industry and Employment

The ACS provides data for the significant industries present in Page that contribute to the city's economic prosperity. The demographic and economic statistics summarized below analyze the major industry trends in Page and the changes to the local economic landscape between 2010 and 2016.

- The two largest industries in Page are educational services, health care, and social assistance (21.1%) and arts, entertainment, and recreation, and accommodation and food services (18.6%). The educational services trade sector of the economy decreased from 24.6% in 2010, while the arts, entertainment, and recreation, and accommodation and food services industry grew from 14.3%.
- When combined, retail trade (13.5%), professional, scientific, management, administrative, and waste management services (10.8%), and other services, excluding public administration (10%) comprise approximately one-third of the local economy's industries.
- There are few to no jobs in agriculture, forestry, fishing and hunting, and mining or in information in Page.

**Figure 12. Industry Categories by Percent of Total Industry**



Source: American Community Survey 2012–2016 Estimates, Table DP03

### Industry Trends

The following trends are taken from the American Community Survey 2010–2016 regarding the change in industry jobs in Page between 2010 and 2016, which reflect important changes in the composition of the economic opportunities and types of jobs available to Page residents (Figure 12). A note regarding the changes in industries in

#### 4. Demographic, Economic, and Housing Analysis

Page: Due to the size of the community and the relatively small number of jobs, relatively small additions or subtractions to industry sectors can appear as major changes.

- The manufacturing industry increased by 413% between 2010 and 2016, adding an estimated 190 jobs for a total of 236 positions. The second largest industry, arts, entertainment, and recreation, and accommodation and food services, also saw a 25% increase, adding 129 jobs in service occupations since 2010.
- The professional, scientific, and management, and administrative, and waste management services industry added 173 jobs for an 86% increase, while the educational services, and health care and social assistance industry lost about 156 jobs for an 18% decrease.
- The construction industry lost 93 jobs between 2010 and 2016, and the transportation and warehousing industry lost 172 jobs for a 41% decrease between 2010 and 2016.

The tourism industry in Page has experienced significant growth over the past decade as the City continues to promote Page as a vacation destination. The Community Development Advisory Board's analysis on the different services in the "arts, entertainment, and recreation, and accommodation and food services" industry presents a detailed consideration of this industry over the past decade as follows:

- Hotels and other lodging have experienced an increase in sales tax as a percentage of total sales tax revenue over the past decade. In the past four years, lodging tax revenue alone has grown by an average of 18% each year.
- Restaurants and bars have experienced growing success in Page, with sales tax revenue increasing over the past five years.
- Local hotels, restaurants, and the visitor center continue to experience increasing growth year-round, despite the seasonal nature of the tourism industry.

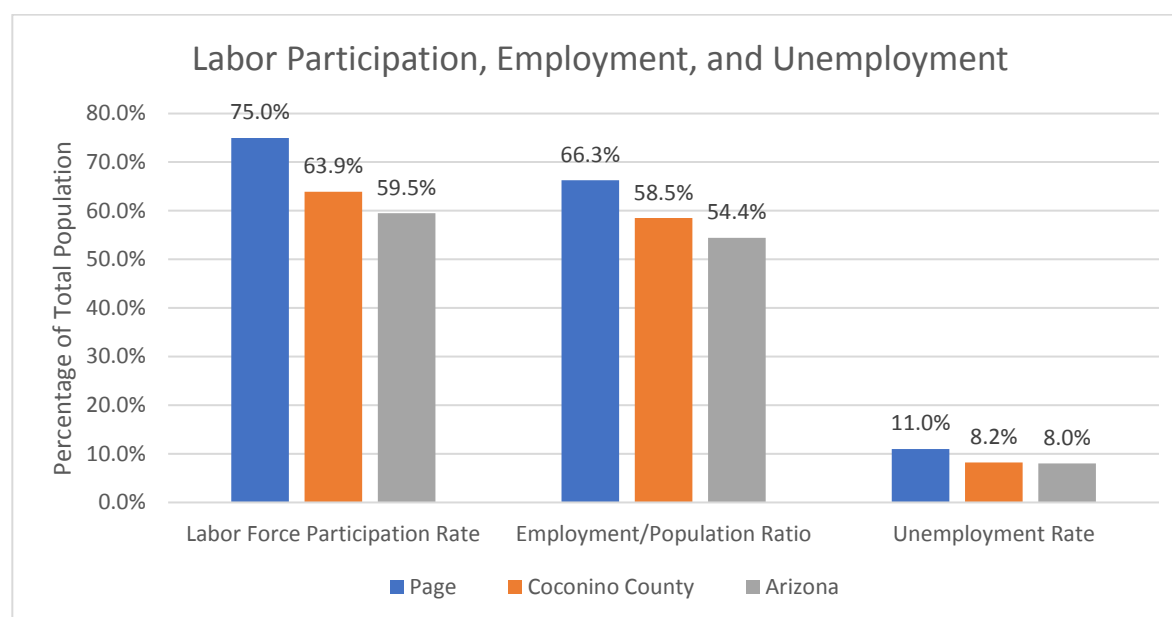
#### Employment and Unemployment Trends

Employment data for significant local employers paired with US Census data on current employment trends in the city were compiled to analyze the local employment trends in Page. The trends shown in **Figure 12** are discussed below.

- The labor force participation rate is significantly higher in Page (75.0%) than in Coconino County (63.9%) or Arizona (59.5%). This implies that Page residents seek out employment at a greater rate, since more people are in the labor force locally than regionally.
- Page has a higher employment-to-population ratio at 66.3% than Coconino County and the state as a whole, which are 58.5% and 54.4% respectively.
- Page also has a higher rate of unemployment than the county or the state with an unemployment rate of 11.0% in 2016 according to the US Census Bureau as compared to an unemployment rate of 8.2% in Coconino County and 8.0% in Arizona, indicating a potential mismatch between employment opportunities and the cost of living in the city.
- Unemployment rates in the city have risen significantly over the past few years, increasing by 77.4% to 11.0% since 2010. In 2010, Page's unemployment rate was lower than the county and state rates at 6.2%. While county and state unemployment rates are increasing as well, these rates are changing more gradually. The highest levels of unemployment are among those in the 20 to 34 age group.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 13. Employment Trends for Population 16 Years and Over**



Source: American Community Survey 2012–2016 Estimates, Table S3201

### Major Employers and Employment Growth

The employment base in Page is an indicator of the types of jobs available to residents and the major businesses in the city. **Figure 14** and **Table 5** present data from the ACS and the Arizona Department of Administration on employment. The key trends are summarized below.

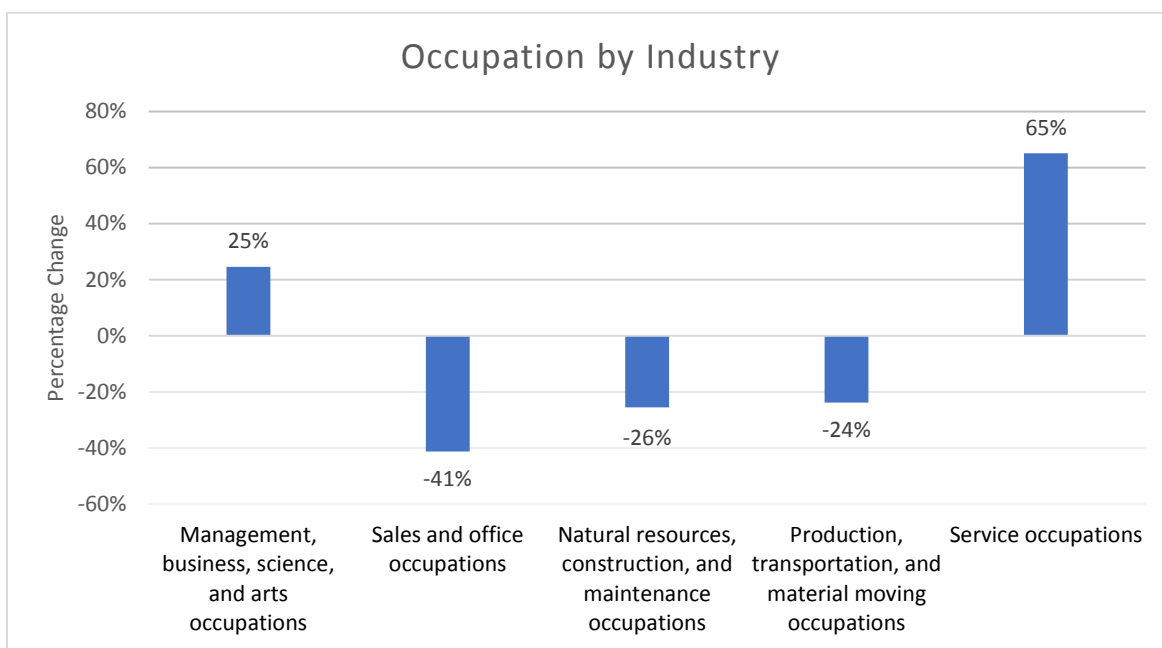
- Service occupations experienced the largest increase in employment opportunities between 2010 and 2016, rising by 65%. In addition, management, business, science, and arts occupations experienced a growth rate of 25%.
- Sales and office jobs decreased at a rate of 41% between 2010 and 2016 in Page, while natural resources, construction, and maintenance occupations and production, transportation, and material moving occupations decreased by 26% and 24% respectively.
- The largest employer in Page is Aramark Lake Powell, which employs 18% of the labor force. Other major employers include the Navajo Generating Station (NGS), accounting for 13% of total employment, and the Page Unified School District and Antelope Point Holdings, each contributing to 12% of total employment.
- While the City of Page reports that the NGS employed 433 permanent full-time workers as of 2017, it is important to note that this number of permanent employees has decreased significantly since then, with the plant having approximately 300 permanent employees in mid-2018, and the number of permanent employees will continue to decrease until the plant discontinues operations at the end of 2019.
- In 2017, there were a total of 241 employment establishments in Page.

**Figure 14** shows the change by occupational type in Page between 2010 and 2016.



#### 4. Demographic, Economic, and Housing Analysis

**Figure 14. Occupational Change (2010–2016)**



Source: American Community Survey 2012–2016 Estimates, Table C24050

**Table 5. Major Employers**

Major Employers	Employees	Percentage of Total Employment
Page Steel/Page Lumber	78	2%
Gary Yamamoto Custom Baits	125	4%
City of Page (including Page Utility Enterprises)	155	4%
Page Hospital	165	5%
Infinity of Page Home Health Care	170	5%
National Park Service – Glen Canyon	193	5%
Super Wal-Mart	230	7%
Antelope Point Holdings, LLC	428	12%
Page Unified School District	430	12%
Navajo Generating Station (NGS)	433	12%
Aramark Lake Powell	650	18%
<b>Total of Major Employers</b>	<b>3,057</b>	<b>86%</b>

Source: City of Page 2017

It is important to note a significant change to the economy of Page with the closure of the Navajo Generating Station in the Navajo Nation. The closure of NGS was necessary after it became clear to the plant's owners that current and forecasted low natural gas prices had made coal generation there uneconomical. The plant will discontinue operations at the end of 2019 with decommissioning occurring over the following few years. Considering that the NGS employs 13% of the total labor force in Page, the impacts on the local economy and workforce will be significant without

## 4. Demographic, Economic, and Housing Analysis

Careful consideration of local needs. NGS leaders have detailed a proposal for employee redeployment with an economic outlook plan to ensure a smooth transition to a new age of economic industry in Page. The plan outlines the following strategies to ensure that the well-being of employees and the community at large are not negatively impacted by the plant's decommissioning:

- Opportunity to remain with Salt River Project and be redeployed to another SRP facility for all regular NGS employees.
- Annual retention payments or retirement options for employees.

The plant forecast a gradual reduction in permanent workforce through the end of 2019. Temporary workers will be employed to help operate the plant to replace permanent workers who are redeployed or leave SRP. Temporary workers will also be used for the decommissioning process. The Economic Strategic Plan (ESP) for the Lake Powell Region predicts that the closure of the NGS will have a dramatic impact on the region with the loss of high paying jobs at the plant and at the Kayenta Mine, and that Page will experience negative impacts to its economy. The ESP cites Page's bountiful workforce as a community strength and recommends building the city by attracting new light industry, identifying agricultural opportunities and new businesses, and promoting tourism to offset the economic loss of the NGS.

Different professions require varying levels of schooling, skill, and expertise to perform job requirements successfully, and pay scales across these industries and professions vary accordingly. Jobs in the professional, scientific, management, administrative, and waste management services industry and the wholesale trade service industry, including jobs at the Navajo Generating Station, typically generate higher median salaries for employees when compared to positions in the accommodation and food services industry. With the closure of the NGS, which accounts for many of the higher-paying employment opportunities in the city, this portion of the economy will shrink to account for less of the local economy's general composition. In contrast to the contraction of this high-paying industry, Page continues to augment and grow its flourishing tourism industry. While continued investment in tourism will generate job creation and more local employment opportunities, there is a noticeable disparity between pay scales for these two industries. Jobs in the accommodation and food services industry and the arts, entertainment, and recreation industry generally pay less than those found at the NGS. Without additional jobs available in higher-paying sectors, the impending change in the types of jobs available to work-seeking individuals will alter the median earnings for residents in a city with more low-paying job opportunities, as opposed to the high-paying positions available in previous years.

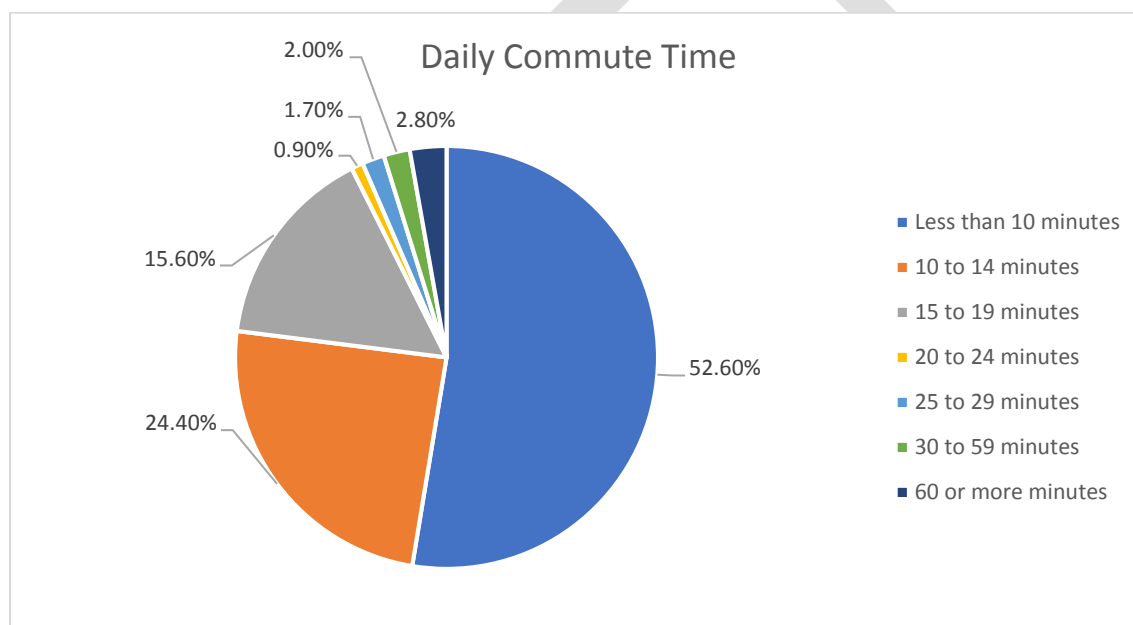
### Commuting Patterns

The relationship between where residents live and where they work is an important consideration for the city to provide industries with access to labor. Since many communities either provide mostly residential areas or serve primarily as employment centers, people often choose to live in one city and work in another. Travel time to work is an important indicator of where people live relative to their jobs and suggests the strength of the local economy in supporting its residents by providing accessible work opportunities within the city. In addition to time spent traveling, the mode of travel to work also indicates the typical commute patterns and transportation norms. Travel times in Page reveal that most people take very little time to travel to work from their residences, indicating that the city is organized to provide accessible transportation to facilitate easier commutes. **Figures 15, 16, and 17** present the data for the following conclusions:

#### 4. Demographic, Economic, and Housing Analysis

- More than three-fourths of commuters in Page reported traveling to work in less than 15 minutes, with half of all commutes being less than 10 minutes. Less than 8% of all commutes were more than 20 minutes in duration. These short commute times make sense due to Page's geographic isolation.
- The majority of Page residents traveled by car, truck, or van to work at a rate of 87.2%. The second most frequent form of transportation was walking to work, which accounts for 9.1%. Less than 1% of the local population reported working from home.
- When looking specifically at the types of transportation within the large percentage of people travelling by car, truck, or van, approximately three-fourths of these commuters drove alone to work in 2016. The next largest mode of transportation was in a 2-person carpool, which accounted for 7.3% of commuters.
- The only public transit system in Page is the Helping Hands Express, which is operated by a private non-profit. Therefore, residents have limited means to travel to work other than by car, taxi, or bicycle or on foot.

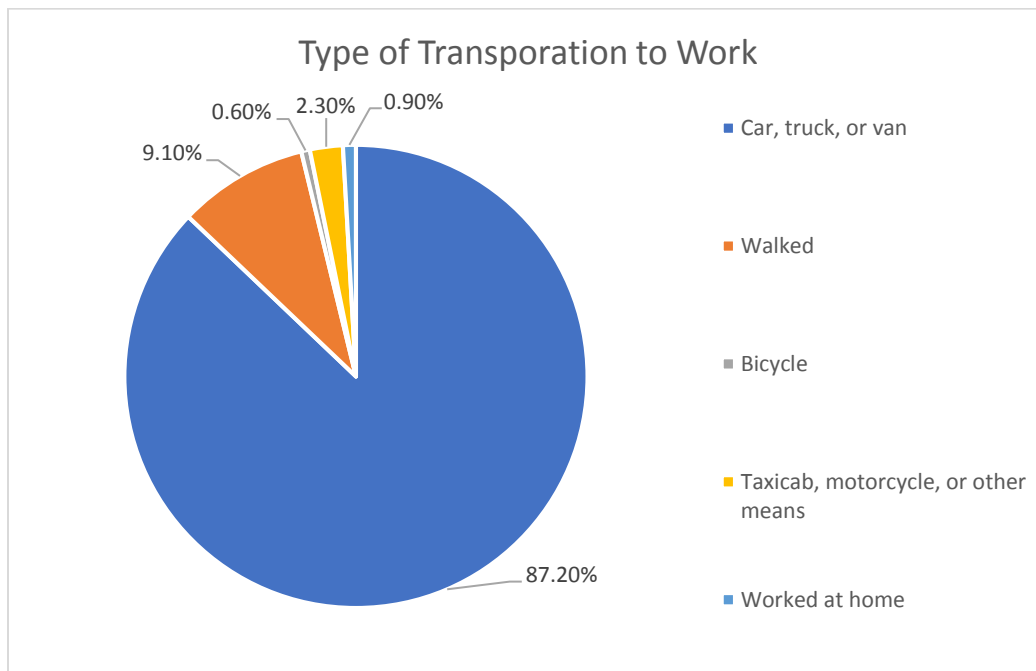
**Figure 15. Travel Time to Work**



Source: American Community Survey 2012–2016 Estimates, Table S0801

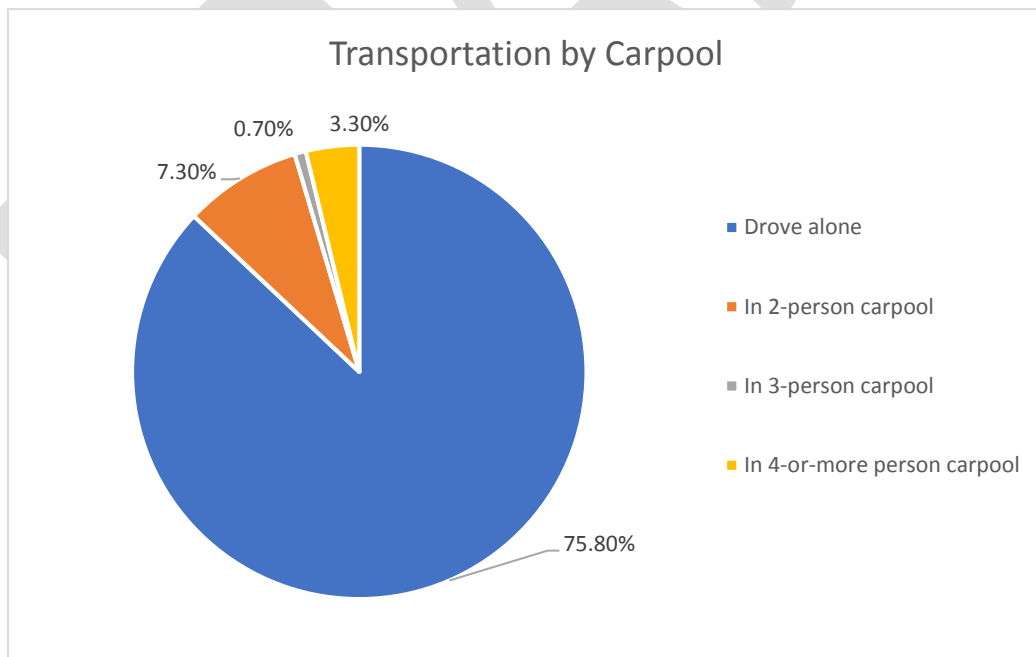
#### 4. Demographic, Economic, and Housing Analysis

**Figure 16. Type of Transportation**



Source: American Community Survey 2012–2016 Estimates, Table S0801

**Figure 17. Vehicle Occupancy**



Source: American Community Survey 2012–2016 Estimates, Table S0801



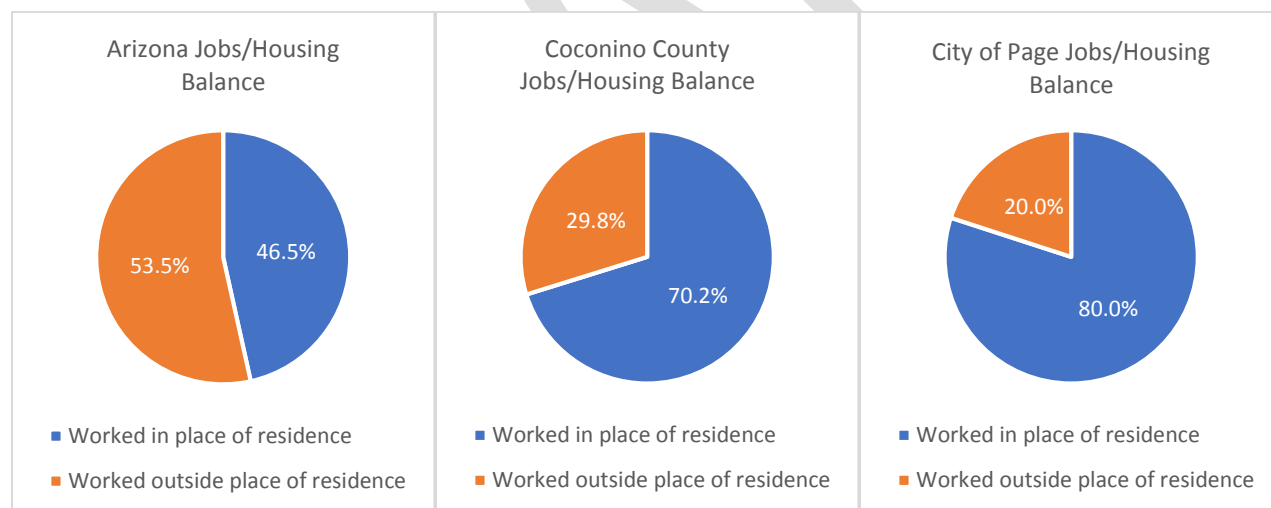
## 4. Demographic, Economic, and Housing Analysis

### Impacts on Jobs/Housing Balance

The balance of housing units with the number of jobs in a community is an important indicator of economic and social prosperity. Communities with an equal and appropriate provision of homes relative to job opportunities allow people to both work and live in the same place, eliminating the need to travel outside the city to fulfill their needs. Communities with extended commute distances generally have a poor jobs/housing balance, while those with short average commutes tend to have a strong jobs/housing balance. The burden of the additional costs associated with extended commuting disproportionately affects lower-income households who must spend a larger portion of their overall income on fuel. This in turn affects a household's ability to occupy decent housing without being overburdened by cost. The following data was taken from the US Census regarding the jobs/housing balance in Page.

- The jobs-to-households ratio is 1.5, indicating that there are more jobs in Page than there are households. The city's ratio is higher than the jobs-to-households ratio for both Coconino County and Arizona.
- Page has a far higher rate of the population working in their city of residence (80%) compared to Coconino County (70.2%) and Arizona (46.5%).
- At the state level, over half of individuals work outside their place of residence, while one-fifth of individuals work outside their place of residence in Page.
- As mentioned in a previous section, Page's labor force participation rate is 75.0%, which is significantly higher than in Coconino County (63.9%) or Arizona (59.5%).

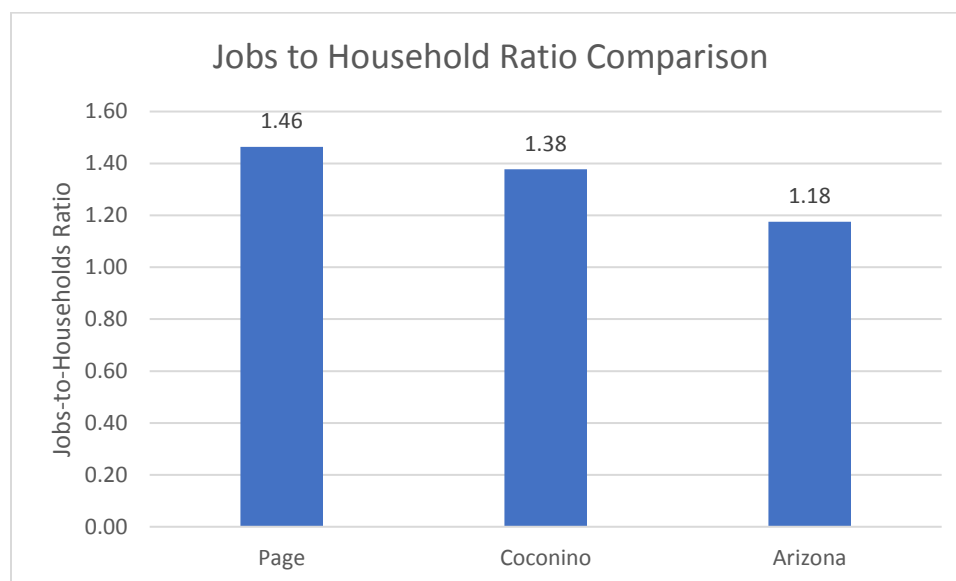
**Figure 18. Jobs to Housing Balance**



Source: American Community Survey 2012–2016 Estimates, Table S2301

#### 4. Demographic, Economic, and Housing Analysis

**Figure 19. Jobs to Households Ratio**



Source: American Community Survey 2012–2016 Estimates, Tables S2301 and B19037

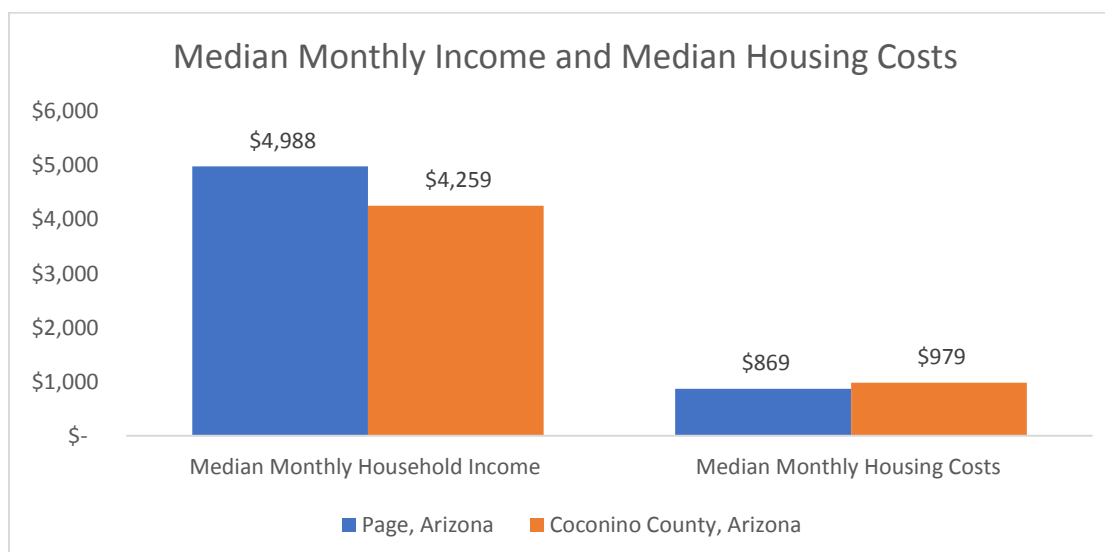
### Comparison of Wages to the Cost of Housing

With approximately 3,932 individuals over 16 years old participating in the labor force in Page, the wages that people receive directly influence their housing options. When there is a large disparity between local wages and the cost of housing in a city, families and individuals may find it difficult to locate desirable housing nearby. The cost of housing discussed below is the cost of monthly rent or the annual mortgage payment divided by 12 months and does not include additional housing costs, such as utilities, insurance, and maintenance. The following data analyzes the affordability of housing given the median household incomes for both Page and Coconino County.

- The median cost of rent is slightly lower in Page at \$822 per month compared to Coconino County's median monthly rent of \$1,025. However, median household incomes reflect an inverse relationship to rental housing costs, with a \$43,490 median household income for renters in Page compared to \$34,223 annually for Coconino County renters.
- The median owner-occupied cost of housing in Page (\$926 monthly costs) is comparable to such costs for Coconino County homeowners (\$902). The median household income for homeowners in Page is \$70,741, but Coconino County homeowners, the median is lower at \$65,986.

#### 4. Demographic, Economic, and Housing Analysis

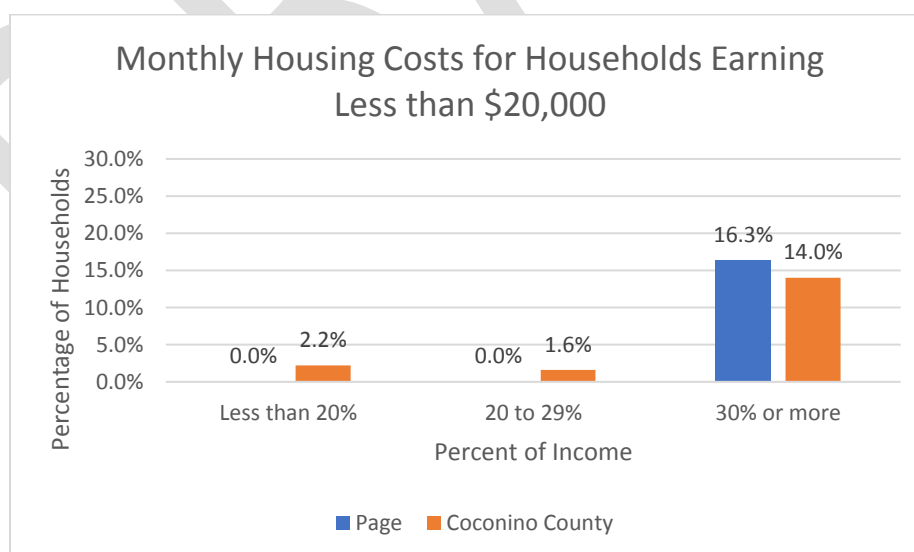
**Figure 20. Comparison of Household Income and Housing Costs Locally and Regionally**



Source: American Community Survey 2012–2016 Estimates, Table S2503

Figures 21 through 24 display monthly housing cost as a percentage of household income for four income ranges. Most households in the region earning less than \$20,000 are paying more than 30% of their income for housing costs, especially in Page. People in Coconino County tend to spend less on their housing than in Page at the lowest and highest ends of the income ranges shown in these charts, but results are mixed for the income range between \$20,000 and \$49,999. In Page, households in the highest income bracket spend the smallest percentage of their total income on housing costs of all the income brackets shown below.

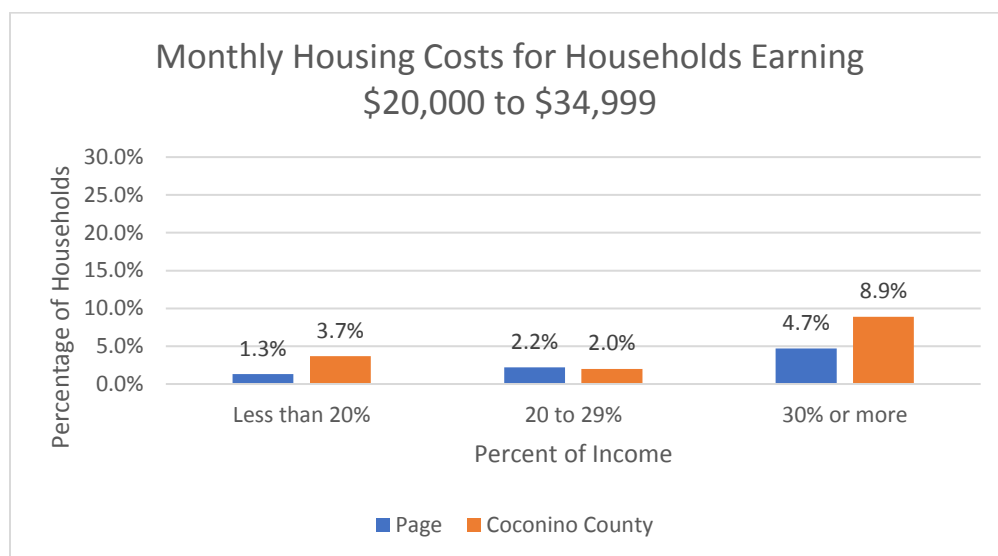
**Figure 21. Monthly Housing Costs for Households Earning Less Than \$20,000**



Source: American Community Survey 2012–2016 Estimates, Table S2503

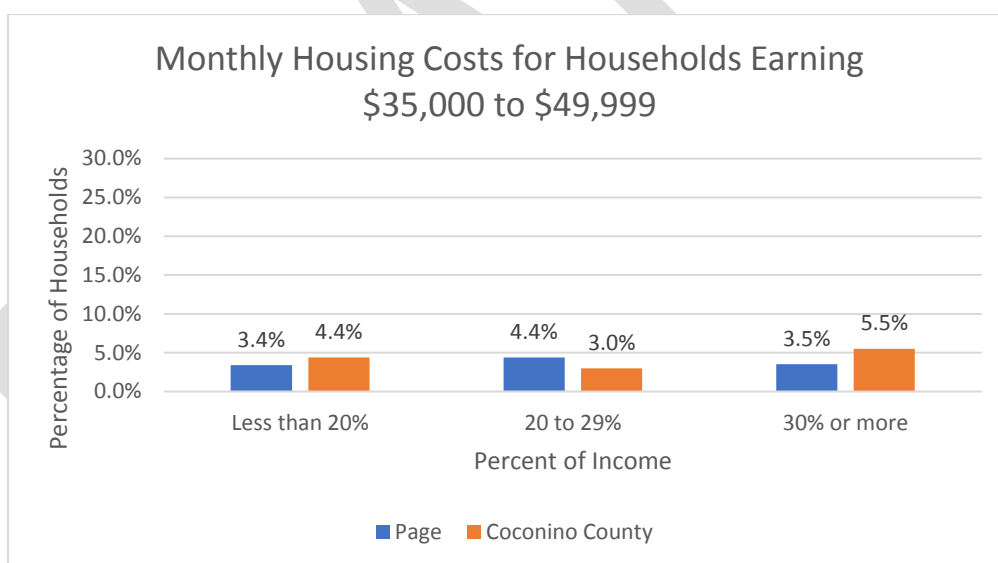
#### 4. Demographic, Economic, and Housing Analysis

**Figure 22. Monthly Housing Costs for Households Earning \$20,000 to \$34,999**



Source: American Community Survey 2012–2016 Estimates, Table S2503

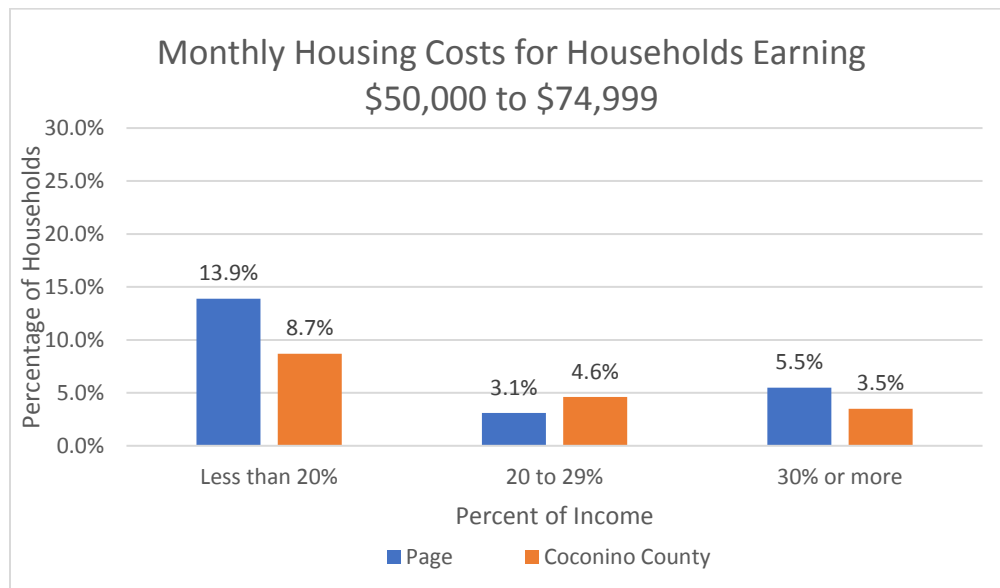
**Figure 23. Monthly Housing Costs for Households Earning \$35,000 to \$49,999**



Source: American Community Survey 2012–2016 Estimates, Table S2503

#### 4. Demographic, Economic, and Housing Analysis

**Figure 24. Monthly Housing Costs for Households Earning \$50,000 to \$74,999**



Source: American Community Survey 2012–2016 Estimates, Table S2503

### Contradictions in the Data

A couple of contradictions in the data need to be addressed. The first is the incongruity between the high unemployment rate and the high number of help-wanted signs in service industry businesses in Page. The second is the lower cost of housing in Page, compared to Coconino County, in light of a housing shortage. The first contradiction is discussed below. The second will be discussed in the next section.

### Unemployment vs. Help Wanted

A major contradiction in the data is the on-the-ground experience of the community engagement team versus the unemployment data from the ACS. The team spent 8 days in Page in March 2018, and a common theme from focus group interviews, as well as informal interviews with Page residents, was the service industry labor shortage. Hotels, restaurants, and other service industry businesses reported significant difficulty in recruiting and retaining employees. Turnover in service industry jobs was anecdotally high, and businesses all along Lake Powell Boulevard exhibited Help Wanted signs in their storefront windows. Multiple times during the engagement period, visiting staff witnessed restaurant managers apologizing for long wait times due to employees suddenly quitting or not showing up to work. Yet the ACS data reports a 75% labor force participation rate, a 1.5 jobs-to-households ratio, and an 11% unemployment rate. Assuming that the experience and anecdotes of the community engagement team reflect a normalized employment atmosphere in Page and that the ACS datasets are representative of the actual data (margins of error are well within tolerance), there must be some additional factor at play that is preventing the labor force and employment opportunities from aligning. This study proposes that the missing factor is the mismatch between the cost of living in Page and available service industry wages.

Comparison of the Flagstaff Metropolitan Statistical Area (MSA) data (which includes Page) with the Phoenix MSA through cost of living calculators provided by bankrate.com indicates that the cost of living in the Flagstaff MSA is 17.6% higher than in the Phoenix MSA. Because Page is at the northernmost border of the Flagstaff MSA and is one of the most remote satellites, it is fair to assume that the cost of living is even higher in Page than in the aggregated

#### 4. Demographic, Economic, and Housing Analysis

MSA. Table 6 compares the cost of living between the two MSAs for food and lifestyle costs. The percentage change in green indicates costs where the Phoenix MSA is less expensive, while red indicates more expensive.

**Table 6. Cost of Living Comparison**

Type of Expense	Flagstaff MSA	Phoenix MSA	% Change
<b>Food Cost</b>			
Hamburger sandwich	\$4.17	\$3.89	7%
Sausage	\$4.66	\$4.32	7%
2-piece chicken meal	\$5.99	\$3.42	43%
Frozen meal	\$2.76	\$2.34	15%
Lettuce	\$1.18	\$1.21	2%
Sweet peas	\$1.21	\$1.05	13%
T-bone steak	\$12.28	\$11.14	9%
Ground beef	\$4.47	\$4.78	7%
Coffee	\$4.72	\$4.68	1%
Parmesan cheese	\$5.09	\$4.03	21%
Potato chips	\$3.59	\$2.73	24%
Orange juice	\$4.14	\$3.69	11%
Canola oil	\$3.12	\$2.80	10%
Potatoes	\$3.43	\$2.92	15%
Dozen eggs	\$2.15	\$2.12	1%
Half-gallon of milk	\$1.69	\$1.73	2%
Peaches	\$2.01	\$1.40	31%
Fried chicken	\$1.59	\$1.83	15%
Frozen corn	\$1.76	\$1.13	36%
Margarine	\$1.20	\$1.01	16%
Bananas	\$0.60	\$0.59	2%
<b>Lifestyle Cost</b>			
Washer repair	\$74.39	\$65.00	13%
Tire balance	\$38.18	\$40.00	5%
Boy's jeans	\$23.89	\$13.15	45%
Cascade dishwasher soap	\$5.73	\$5.15	10%
Tennis balls	\$3.88	\$2.13	45%
Women's slacks	\$26.94	\$27.99	4%
Men's shirt	\$30.67	\$23.10	25%
Newspaper	\$19.08	\$24.00	26%
Ibuprofen	\$10.21	\$7.94	22%
Gasoline	\$2.48	\$2.49	0%
Toothpaste	\$2.35	\$1.48	37%
Shampoo	\$1.16	\$0.86	26%
Optometrist visit	\$100.44	\$84.67	16%



#### 4. Demographic, Economic, and Housing Analysis

Type of Expense	Flagstaff MSA	Phoenix MSA	% Change
Dentist visit	\$119.96	\$98.67	18%
Veterinarian services	\$44.74	\$45.67	2%
Beauty salon visit	\$24.51	\$28.33	16%
Haircut	\$14.55	\$13.33	8%
Dry cleaning	\$11.30	\$14.00	24%
Bowling	\$4.48	\$4.88	9%

Source: <https://www.bankrate.com/calculators/savings/moving-cost-of-living-calculator.aspx>

The higher cost of living in Page therefore is likely a big part of the mismatch between the labor force and available jobs. Wages would need to be high enough to support the additional cost. A comparison of median hourly wage data for service industry occupations, however, shows that wages in the Flagstaff MSA are actually lower than in the Phoenix MSA. Table 7 compares service industry median hourly wages between the two MSAs.

**Table 7. Median Hourly Wage Comparison**

Occupation	Flagstaff MSA	Phoenix MSA	Difference
Personal Care and Service Occupations	\$11.06	\$11.26	-1.8%
Tour Guides	\$11.29	\$11.14	1.3%
Recreation Workers	\$10.24	\$11.70	-14.3%
Cooks – Restaurant	\$11.60	\$12.74	-9.8%
Cooks – Fast Food	\$10.15	\$10.10	0.5%
Waiters and Waitresses	\$10.01	\$10.01	0.0%
Maids and Housekeeping Cleaners	\$10.97	\$11.03	-0.5%

Source: Bureau of Labor Statistics May 2017 Wage Estimates

As Table 6 indicates, service industry median wages in the Flagstaff MSA are not comparably higher than in the Phoenix MSA. If industry wages are not high enough to compensate for the increased cost of living, there is little incentive for workers to engage with the employment market in that industry. The result is an engaged labor force with both a high participation rate and high unemployment, despite the availability of jobs. Households respond to this problem a number of ways, but interviews with service industry staff in Page suggest that many of the households respond by pooling family resources to cover costs. When households include multigenerational family members or extended family with multiple wage earners, as is suggested by the jobs-to-households ratio, this response allows families to stabilize monthly income while tolerating low-wage jobs, temporary or seasonal jobs, and high job turnover.

## Characteristics of Housing Supply

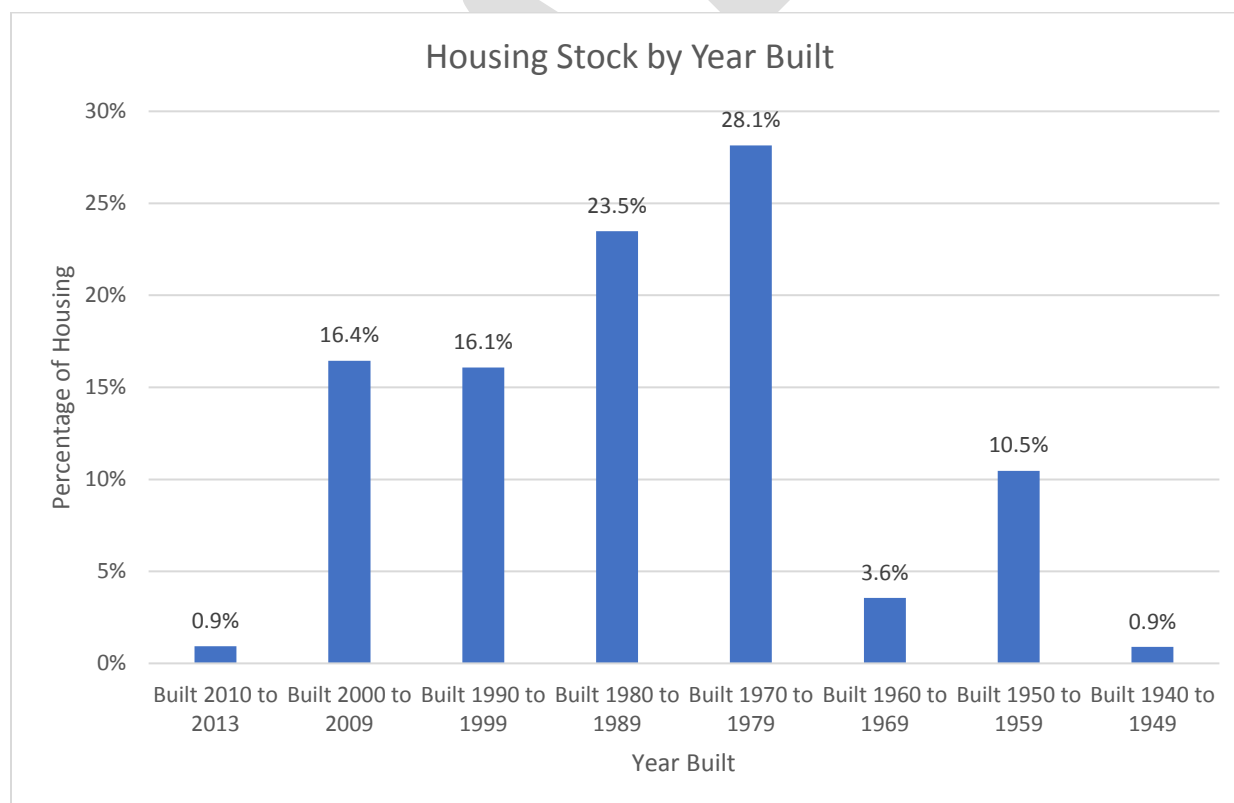
### Overview of Existing Housing Supply

#### Age of Housing Stock

The existing housing stock in Page is aging, as is typical for cities across the nation after experiencing several “boom” periods tied to large construction projects such as the Glen Canyon Dam and the Navajo Generating Station during the twentieth century. According to the ACS, Page includes approximately 2,810 housing units. It is important to note that while the ACS reports little to no new construction in the city since 2010, the housing stock may in fact have grown slightly but not been captured by the survey. A breakdown of the housing units is presented in Figure 25 and summarized as follows.

- Approximately half (51.6%) of all housing is concentrated in residences built between 1970 and 1989.
- No homes in Page were built before 1940.
- Construction of new homes has decreased significantly since its peak in the 1970s, with 457 new residences added to the city’s housing stock between 1990 and 2009.

**Figure 25. Age of Housing Stock**



Source: American Community Survey 2012–2016 Estimates, Table S2504

## 4. Demographic, Economic, and Housing Analysis

### Housing Condition Survey

Page contains many distinctive neighborhoods, including various mobile home parks. Neighborhood identification is helpful with the planning and implementation of urban design goals, housing rehabilitation, and neighborhood parks and public facilities improvements. The City of Page defined eight unique neighborhoods for the housing condition survey:

- Bureau Homes
- Chapman Mobile Home Park
- Glenn Canyon Drive
- Lake Powell Mobile Home Village
- Manufactured and stick-built single-family housing units off Elk Road and San Francisco Road
- Manufactured and stick-built single-family housing located between Tower Butte Avenue and Thunderbird Avenue
- Rim View Trailer Village
- Westview Apartments

It should be noted that the City identified specific neighborhoods for the housing condition survey, with the goal of capturing housing conditions in the mobile home parks and to discover how different neighborhoods with different housing types have aged. As a result, this survey is not a comprehensive representation of housing units in Page as a whole. This survey evaluated housing conditions for the 812 units. The City identified the neighborhoods, shown in **Figure 26**, to be included in the survey based on one of the following factors:

- There was little existing information on the neighborhood.
- These neighborhoods have significant numbers of older homes with potential rehabilitation needs.
- Unique types of housing are concentrated specifically in these neighborhoods.

#### 4. Demographic, Economic, and Housing Analysis

Figure 26. Page Neighborhoods



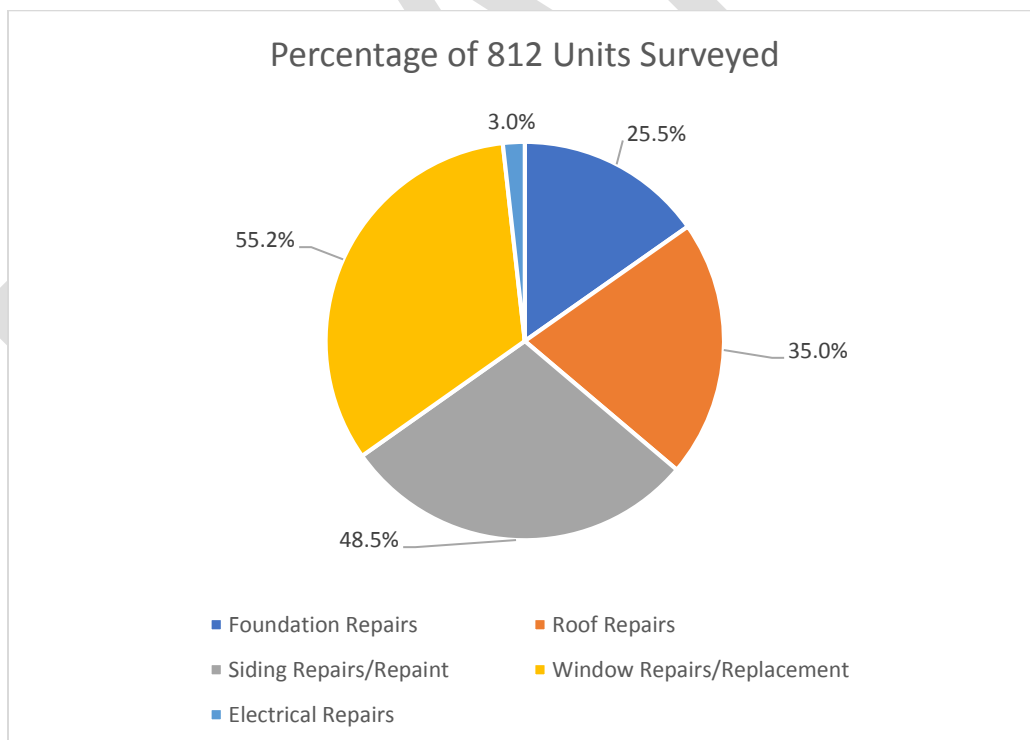
#### 4. Demographic, Economic, and Housing Analysis

The various neighborhoods across the city vary in housing type and condition, as shown in **Figure 27** below. Housing types in Page vary by neighborhood in type and concentration, with major trends as follows:

- Seven out of these eight neighborhoods contain a majority of single-family units with attached or detached garages. (Note that the survey form did not include an option for carports or no-garage units. The vast majority of units labeled with detached garages were actually units with either carports, which were more common with modular, stick-built, and cement block homes, or no garage or covered car parking at all, which was common with mobile homes in the mobile home parks.)
- Westview Apartments, of wood-frame construction, is the only surveyed neighborhood that contains entirely multi-family housing units.
- The neighborhoods located in the western and northern sections of the city contain a variety of modular, mobile home, and wood-framed units, comprised exclusively single-family housing units.
- Rim View Trailer Village and Lake Powell Mobile Home Village, comprising exclusively mobile and modular homes, have the highest incidence or severity of home issues with housing units in need of various repairs.

The survey captured a total of 812 housing units across the eight neighborhoods. The major issues identified across all neighborhoods are categorized as shown in **Figure 28**.

**Figure 27. Most Common Housing Condition Issues**



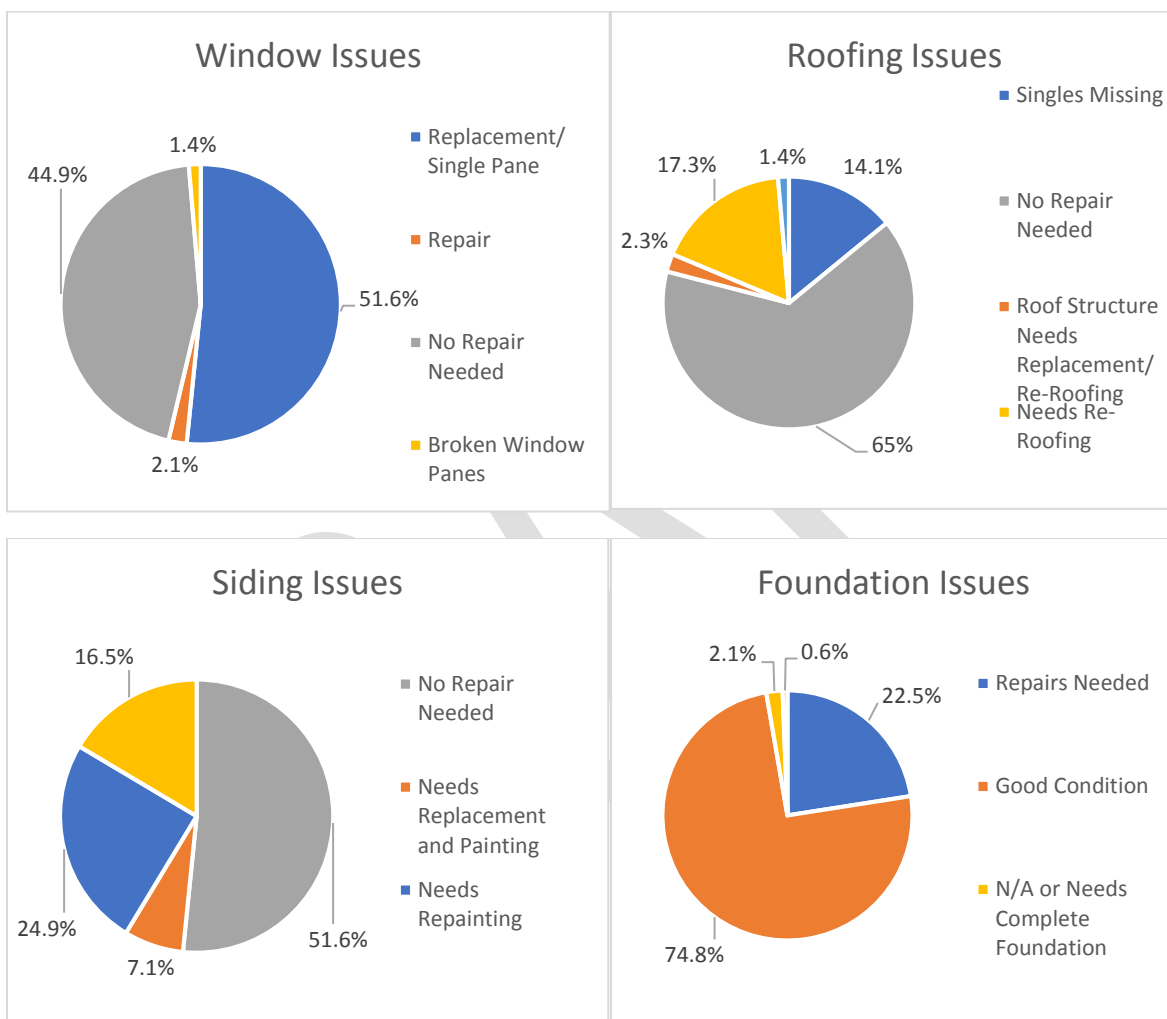
Source: Michael Baker International 2018

Figure 28 breaks down the individual issues by severity. Each component was evaluated to identify whether it qualified for repair or replacement along a spectrum. Houses that needed window replacement of single-pane

#### 4. Demographic, Economic, and Housing Analysis

windows typically needed all of the windows replaced, whereas houses with broken windows usually only had one or two broken panes. Many of the housing units had solid surface roofs, typical of mobile homes, and were difficult to observe from the ground. Of all the housing conditions surveyed, the roof condition is most vulnerable to error due to the surveyors' inability to effectively observe the roof condition. Few units exhibited observable electrical problems, and the bulk of the units with outdated or poor electrical connections were located in either Rim View Trailer Village or Lake Powell Mobile Home Village.

**Figure 28. Individual Housing Condition Issues**



Source: Michael Baker International 2018

Of the most commonly reported housing issues, the following trends within each issue present the major challenges that the community faces with regard to needed housing repairs.

- Windows are the most in need of repair. Within this issue, approximately half (51.6%) of all surveyed units reported needing the replacement of single-pane windows. Less than 3% of all households surveyed reported any other form of window issue, with 2.1% of units in need of a repair and 1.4% reporting broken window panes. Aged single-pane windows are vulnerable to leaks and water damage. They also have very poor



#### 4. Demographic, Economic, and Housing Analysis

insulation and energy conservation performance, significantly increasing energy costs, particularly in a desert environment like Page that experiences extreme temperatures.

- Roofing was generally the second most common housing rehabilitation need in Page. While over two-thirds of the units observed did not need repairs, 17.3% need to be re-roofed and 14.1% have roof shingles missing. As mentioned above, the roofing condition survey is vulnerable to underreporting due to observation challenges.
- Approximately one-fourth of all units need repainting. With regard to other siding issues, 16.5% need siding/stucco patching and painting and 7.1% are in need full siding/stucco replacement. Regular paint maintenance is the least expensive and most effective way to preserve siding and protect the building envelope, and can significantly increase the life of building materials in extreme climates.
- Nearly three-fourths of all surveyed units in Page reported their home foundation to be in good condition. Less than 1% of units required a partial foundation replacement, and 2.1% needed a complete foundation replacement. Virtually all of the mobile home units surveyed were still on their chassis and did not have permanent foundations. Foundation repairs for these units were only identified in instances where the chassis was obviously out of level or where the paneling around the chassis was severely damaged.

Citywide, the issues identified for each unit were combined into an overall score for the condition of the unit. **Table 8** summarizes the overall condition of the 812 units surveyed.

**Table 8. Housing Conditions**

Condition	Number of Units	Percentage of Total
Good Condition (no repairs needed)	207	25.5%
Minor Repairs Needed (paint, minor roof repairs)	73	9.0%
Moderate Repairs Needed (siding/stucco patch and paint, retrofit windows and repair broken panes, roof repairs)	234	28.8%
Substantial Repairs Needed (re-roof, siding/stucco replacement, patch and paint, retrofit windows/window repair)	272	33.5%
Severely Dilapidated (units need foundation repairs/replacement, structural roof/chimney repairs, new siding and paint, extensive window repairs and replacement, electrical repairs)	26	3.2%
<b>Totals</b>	<b>812</b>	<b>100.0%</b>

Source: Michael Baker International 2018

About 25.5% of the units surveyed were in good condition and did not need any repairs. Minor repairs were needed for 9% of units, defined as new paint or minor roof repairs to fix missing shingles. The survey revealed 28.8% of units in need of moderate repairs, including retrofit for single-pane windows, stucco or siding patches and paint, and minor roof repairs. Another 33.5% of the units need substantial repairs, including stucco or siding replacement, new windows, and roof replacement. Only 3.2% of the units are extremely dilapidated or in need of repairs sufficient to warrant removal or demolition and replacement based on exterior observation. The housing condition survey did not account for interior housing conditions.

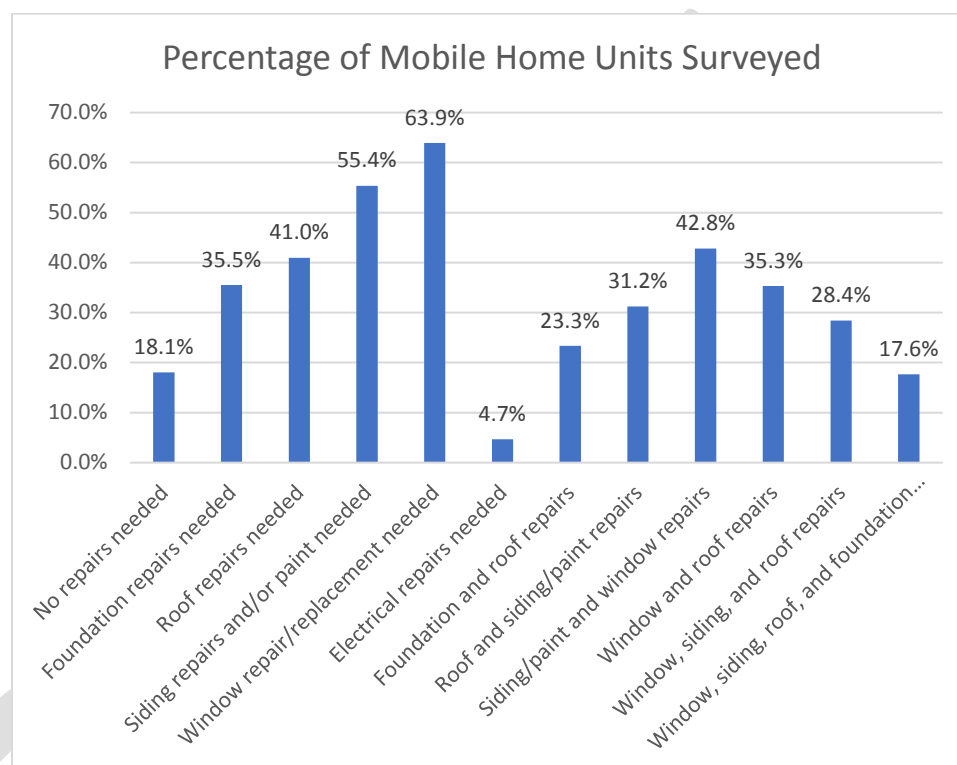
#### 4. Demographic, Economic, and Housing Analysis

The following section breaks down the observed housing conditions by different housing types: mobile homes, modular units, stick-built homes, and cement-block homes.

##### *Mobile Homes*

The engagement team surveyed 493 mobile homes in Page. The majority of the homes were in one of the three parks; however, a significant number of homes in the neighborhood were identified as Manufactured Housing on the neighborhoods map. **Figure 29** breaks out the types of repairs needed by category for the mobile homes surveyed.

**Figure 29. Mobile Home Repairs**



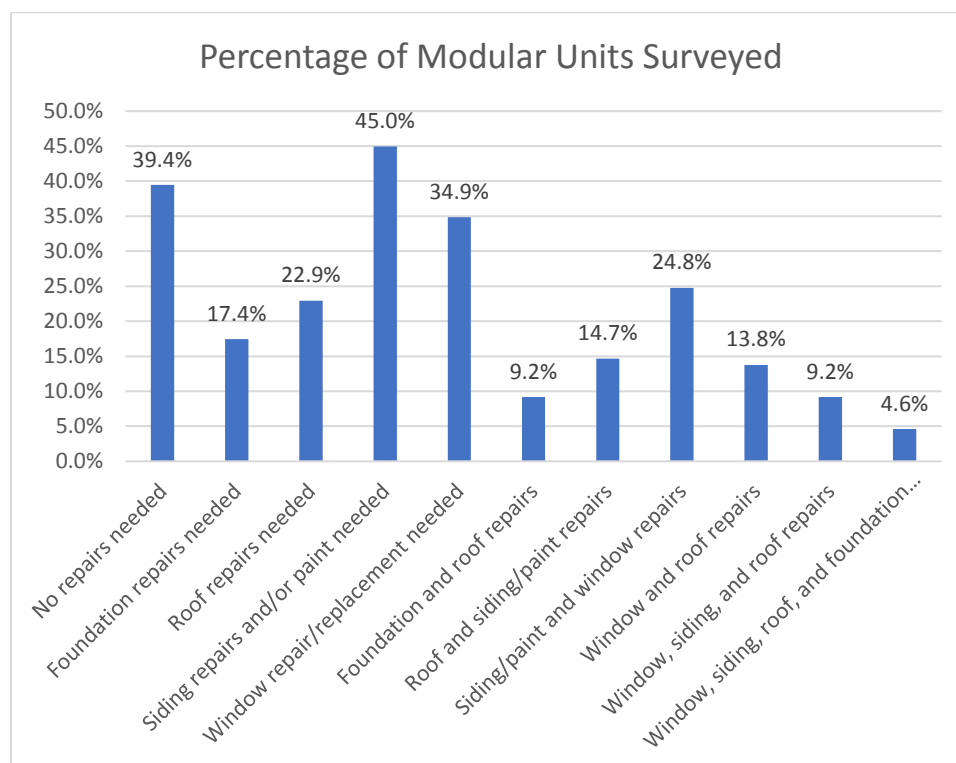
Only 18.1% of the mobile home units surveyed were in good condition with no repairs needed, and 17.6% needed window, siding, roof, and foundation repairs. The most frequent repair needed was windows, with 63.9% of the units needing full unit window repair or replacement due to single-pane windows. Siding was the second most common repair with 55.4% needing new paint, 35.1% needing siding repairs and paint, and 15.7% needing siding replacement and paint. Of the units needing roof repairs, 30.1% needed minor repairs and 69.9% needed re-roofing or substantial structural repairs. The survey found 28.4% of the units needing siding, window, and roof repairs, indicating units with a compromised building envelope. Forty-one or 8.3% of the surveyed units appeared to be vacant, and two of those vacant units were in good condition with no obvious repairs needed.

## 4. Demographic, Economic, and Housing Analysis

### Modular Homes

The survey assessed the condition of 109 modular homes, which are homes manufactured off-site, but assembled on-site, typically on fixed foundations. These units generally mimic stick-built homes in materials, with wood window trim, siding or stucco, and pitched roofs. **Figure 30** shows the repairs needed in the observed modular units.

**Figure 30. Modular Unit Repairs**



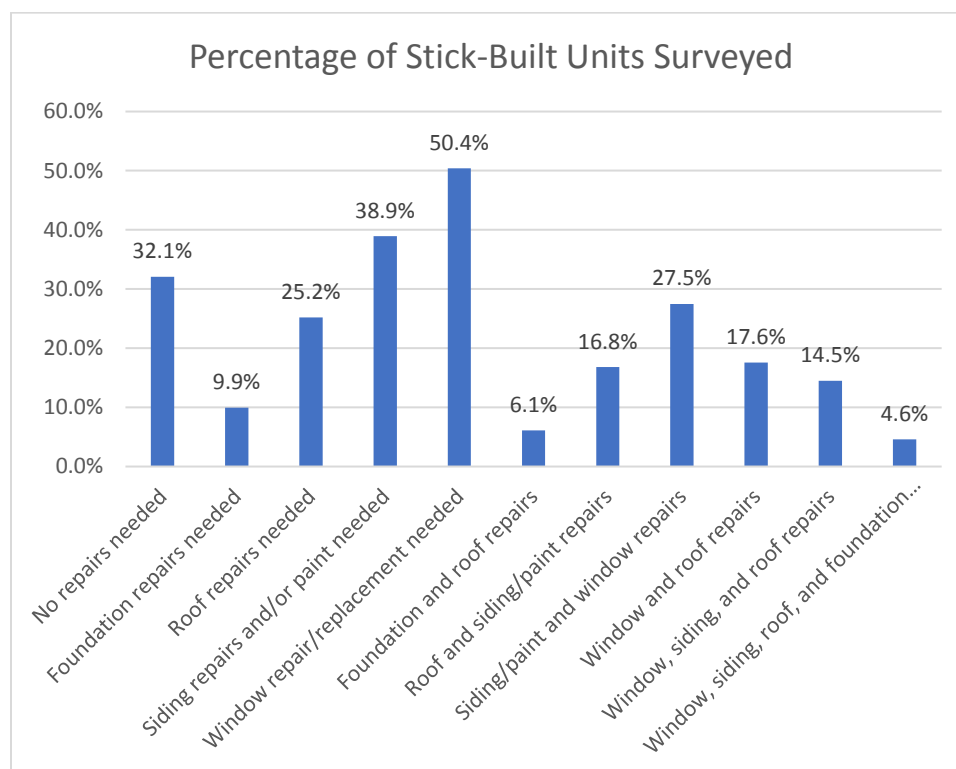
A higher percentage of the modular homes were in good condition with no obvious repairs needed, compared with mobile homes. Of the surveyed units, 39.4% required no repairs. The most common needed repair was siding or paint at 45% of the surveyed units. Only 10.3% of the units requiring siding repair needed major repairs or replacement. The majority just needed new paint. The survey found that 92.1% of the units needing window repair required replacement due to single-pane windows, and 25% of the units needing roof repairs needed re-roofing or structural repairs. As a whole, the modular units were in better condition than the mobile homes observed, and of the modular units that did need repairs, the repairs tended to be more modest. Only 4.6% of the units observed needed window, siding, roof, and foundation repairs.

### Stick-Built Homes

The survey included 131 stick-built homes in Page. These units were in multiple neighborhoods and exhibited a wide range of maintenance and repair needs. **Figure 31** shows the percentage of units observed that needed different repairs.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 31. Stick-Built Home Repairs**



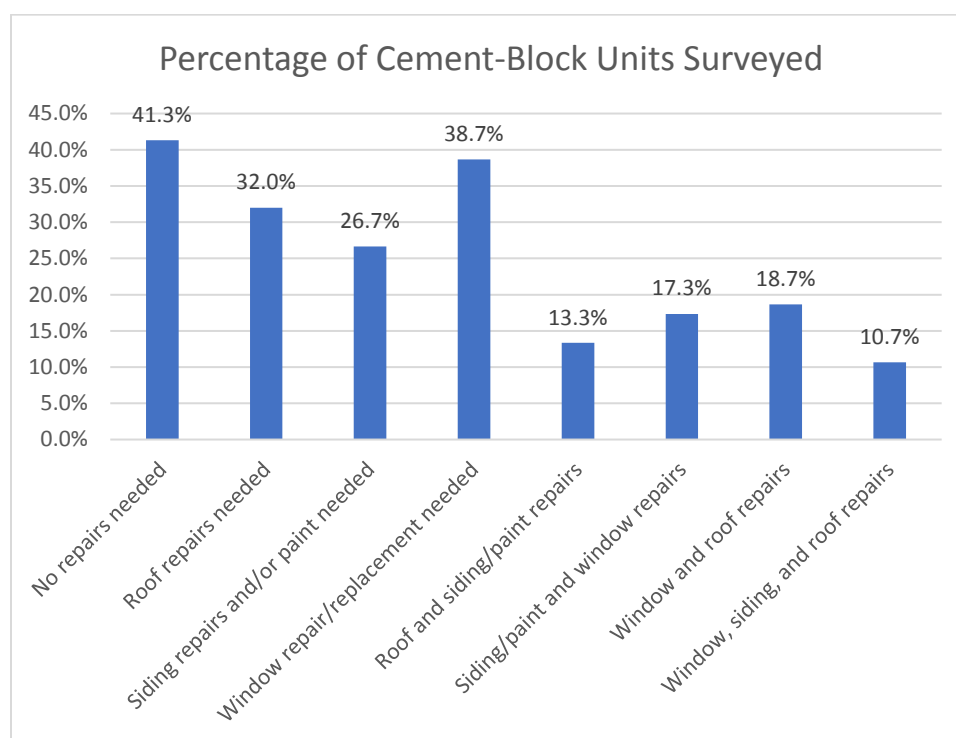
The stick-built homes displayed maintenance needs similar to the modular homes discussed above. The survey found 32.1% of the units in good condition with no obvious repair needs, while 4.6% needed substantial repairs in all of the critical categories. Windows were the most common repair needed at 50.4% of the units observed. Of those, 98.4% needed replacement of single-pane windows. Siding and paint was the next most common repair at 38.9% of observed units. Of those, 80.3% needed either new paint or minor repairs and new paint. Substantial repairs, such as re-roofing, chimney repairs, or structural repairs, were needed by 48.4% of the units needing roof repairs.

#### *Cement-Block Homes*

The survey team observed 75 cement-block homes, mostly in the Bureau Homes neighborhood. These units, while some of the oldest in the city, were also in the best overall condition. There were no observed foundation or electrical issues. **Figure 32** breaks down the repair needs for the cement-block homes.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 32. Cement-Block Home Repairs**



The cement-block homes in Page were generally better maintained and had less evidence of needed repairs of all the housing types surveyed. Of the surveyed homes, 41.3% were in good condition with no repairs needed, and 38.7% needed window repairs, all of which were for single-pane windows. Similarly, all of the units with siding or paint repairs needed minor patches or new paint. Only 29.1% of the units needing roof repairs required substantial re-roofing, and none had observable structural issues. Many of the cement-block units had been updated, with new windows, converted carports, additions, newer siding, and other features.

### Type and Tenure

**Table 9** compares housing tenure in Page to tenure in the county and state. Housing tenure is determined by whether households own or rent their housing units.

**Table 9. Housing Tenure**

Geography	Owner Occupied	Renter Occupied
Arizona	62.6%	37.4%
Coconino County	59.1%	40.9%
Page	63.8%	36.2%

Source: American Community Survey 2012–2016, Table S2501

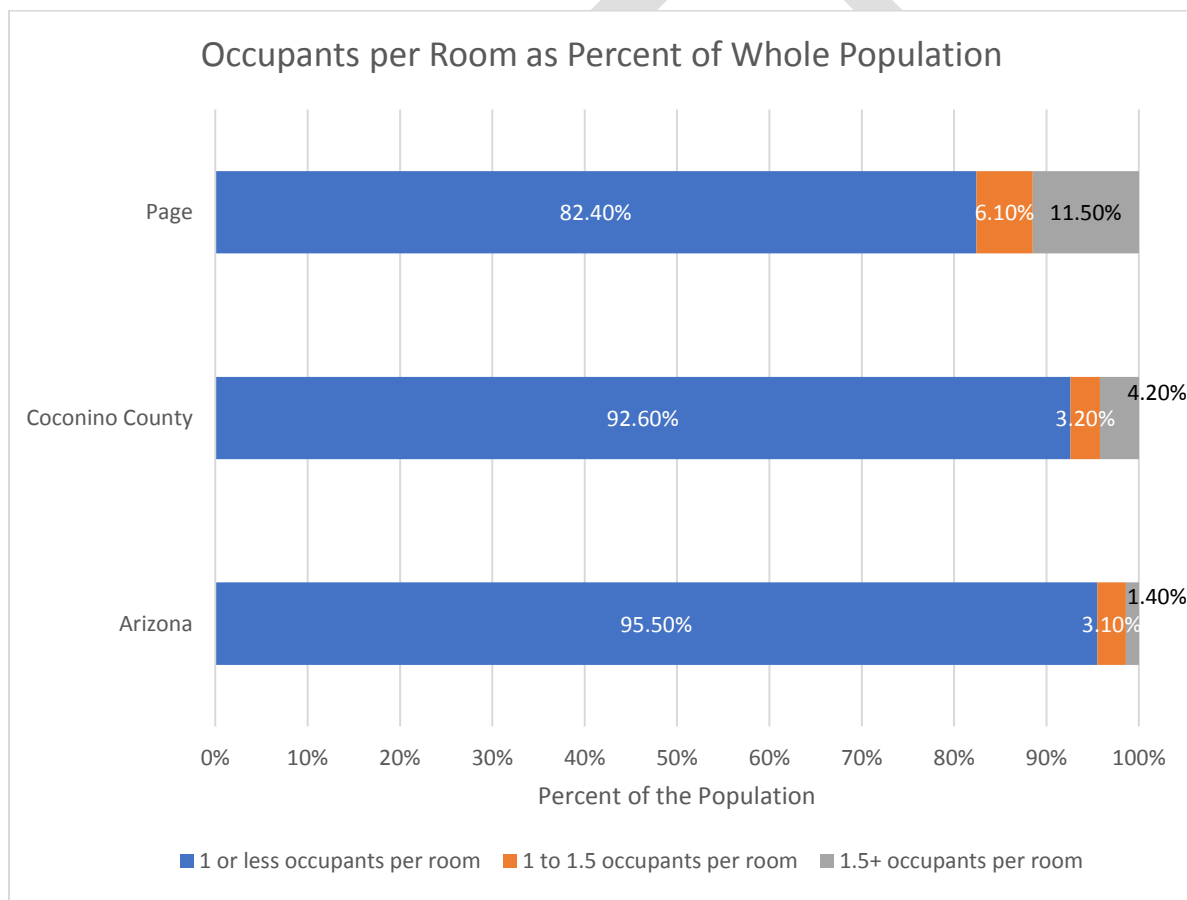
Housing tenure in Page is comparable to the state with 63.8% of households living in owner-occupied units and 36.2% living in rental units. Coconino County has slightly higher rental occupancy rates with 40.9% of units occupied by renters. Tenure is important because it is a major factor in housing stability and plays a large role in household prosperity. The following analysis compares owner-occupied housing to rental units across a number of variables.

#### 4. Demographic, Economic, and Housing Analysis

##### Household Size

Household size is important and can indicate possible overcrowding, which HUD defines as more than one person per room (including bedrooms and living spaces, but not including kitchens and bathrooms). Overcrowding generally increases wear and tear on housing units, and severe overcrowding (defined as more than 2 persons per room) can pose health and safety risks that adversely impact quality of life. While residents usually try to obtain housing that meets their needs according to size and type, those choices are influenced by the available housing stock and the range of available housing choice. The current shortage of available housing and the lack of housing variety options in Page results in residents, particularly lower-income residents, obtaining housing that may not meet their needs or preferences. Newcomers, younger households, and seniors are all vulnerable populations in this housing market, and they may be constrained to live in unsuitable housing types because that is all that is available. This analysis provides insight into housing needs and preferences for household types in Page under the current limitations of local housing availability. **Figure 33 and 34** provide data on occupants per room and age of occupants.

**Figure 33. Occupants per Room as Percentage of Population**



Source: American Community Survey 2012–2016 Estimates, Table S2501

According to **Figure 33** above, Page has significantly higher rates of overcrowding than either the county or the state. **Table 10** breaks down the overcrowding in Page by tenure, based on rental units versus ownership units.



#### 4. Demographic, Economic, and Housing Analysis

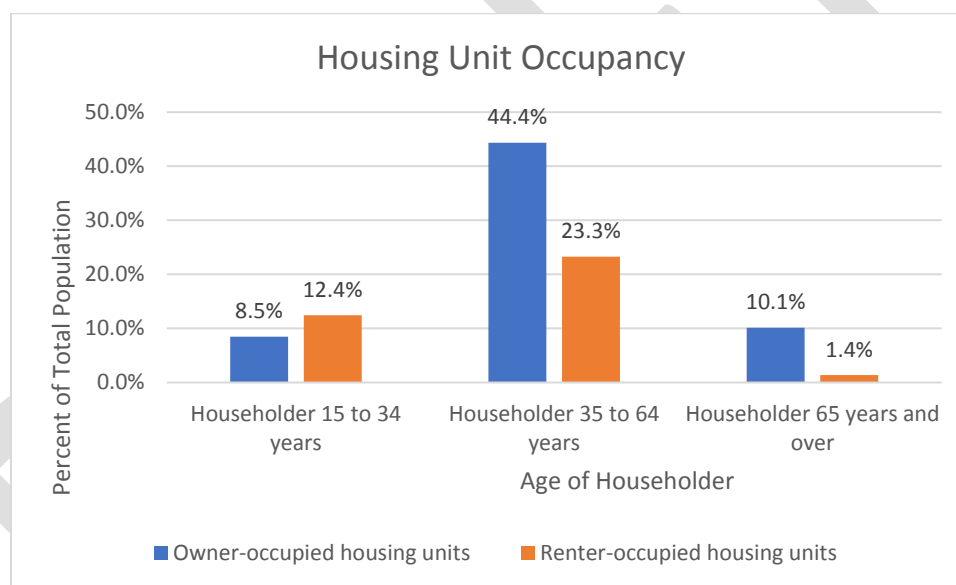
**Table 10. Tenure and Overcrowding**

Housing Occupancy	Owner Occupied	Renter Occupied
1 or fewer occupants per room	94.8%	60.5%
1 to 1.5 occupants per room	3.4%	10.9%
More than 1.5 occupants per room	1.8%	28.6%

Source: American Community Survey 2012–2016, Table S2501

As shown in the table above, overcrowding is a much larger problem in rental units than in owner-occupied housing. Households that rent units in Page also tend to earn less and to have more children under the age of 18. In Page, 56.2% of renter-occupied households included children under the age of 18, while 40.4% of owner-occupied households included children. Similarly, the median income for owner-occupied housing was \$70,741, while the median income for renter-occupied housing was \$43,940 according to the 2016 ACS. Figure 34 shows housing tenure by householder age.

**Figure 34. Housing Unit Occupancy**



Source: American Community Survey 2012–2016 Estimates, Table S2501, Housing Counts for Canyon Lake Apartments and Beehive Assisted Living, 2018

The above figure confirms earlier data regarding younger households and seniors. First, younger households are more likely to rent their housing than own their home. Second, seniors who can afford to live in Page generally own their homes. There is one senior apartment complex, and one senior care facility that make up the bulk of senior rental units in the City.

#### Housing Types

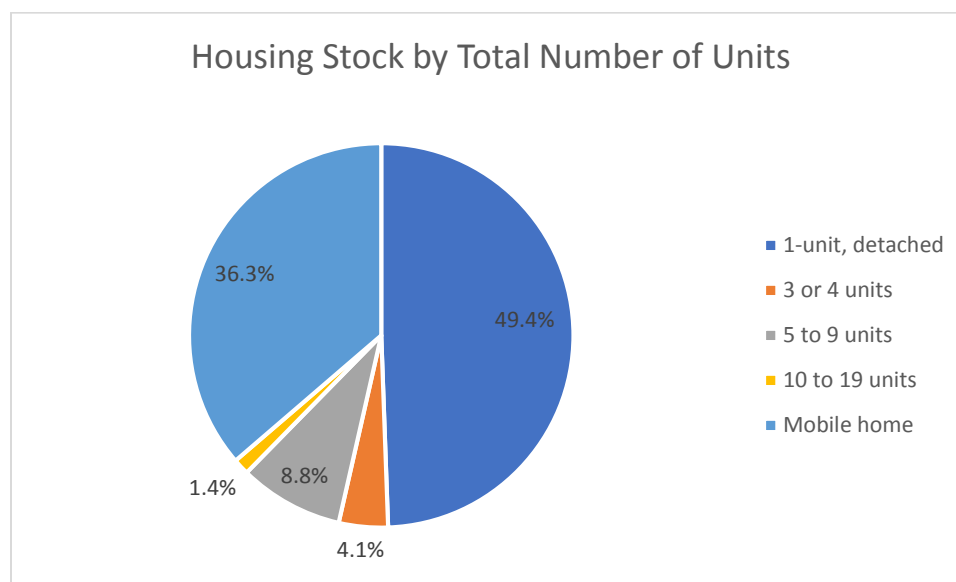
The following data analyzes different housing types in Page:

- Single-family detached homes are the most common housing type (49.4%).
- There are almost no two-unit duplexes in the city.

#### 4. Demographic, Economic, and Housing Analysis

- A large proportion of the city's housing stock is found in mobile homes, which account for over one-third of total housing units.
- The city has very few large apartment complexes (with more than 20 units).

**Figure 35. Types of Housing Unit**



Source: American Community Survey 2012–2016 Estimates, Table S2504

**Table 11** breaks down the housing in page by number of rooms by tenure.

**Table 11. Housing Size by Tenure**

Housing Size	Owner Occupied	Renter Occupied
1 room	0.0%	25.4%
2 to 3 rooms	10.3%	22.0%
4 to 5 rooms	39.5%	45.0%
6 to 7 rooms	28.1%	2.8%
8 rooms or more	22.1%	4.7%

Source: American Community Survey 2012–2016 Estimates, Table S2504

As the table above shows, renter-occupied homes in Page tend to have fewer rooms than owner-occupied housing.

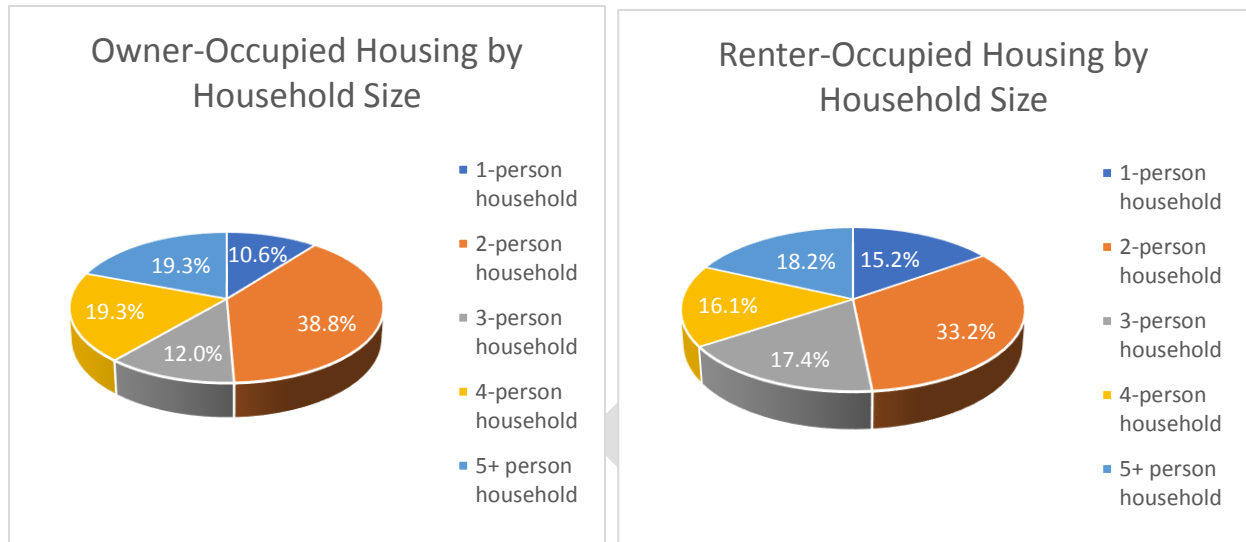
#### *Household Tenure and Size*

The trends of household tenure by size indicate what types of housing are most needed in Page. From the data obtained from ACS, it appears that 2-person households are the most common in Page, with 38.8% of owner-occupied units housing 2 people and 33.2% of renter-occupied units housing 2 people. The next most common household size is 4- and 5-person households in owner-occupied units and 3- and 5-person households in renter-occupied units. When compared to 2010 data, a trend emerges. The occurrence of 4-person households in Page has risen by 152% since 2010 for owner-occupied units and by 160% for renter-occupied units. In addition, 1- and 2-person households have decreased since 2010 for both owner-occupied and renter-occupied units, while the incidence

#### 4. Demographic, Economic, and Housing Analysis

of 3-person renter-occupied units has risen by over 300%. This data reflects a trend toward larger family sizes and, therefore, the need for homes suitable for larger families.

**Figure 36. Households by Tenure**



Source: American Community Survey 2012–2016 Estimates, Table B25009

As shown in the above figure, household sizes in rental units are very comparable to household sizes in owner-occupied housing. However rental housing in Page tends to be smaller, and rental households typically earn less, are more likely to have children, and are at a higher risk of overcrowding. The residents of Page have experienced a significant increase in overcrowding in recent years, with the incidence of 1.5 or more occupants per household rising from 2.2% in 2010 to 11.5% in 2016, with most of that increase focused in rental units. This trend is not reflected at the county or state level, where overcrowding rates have remained lower and more constant.

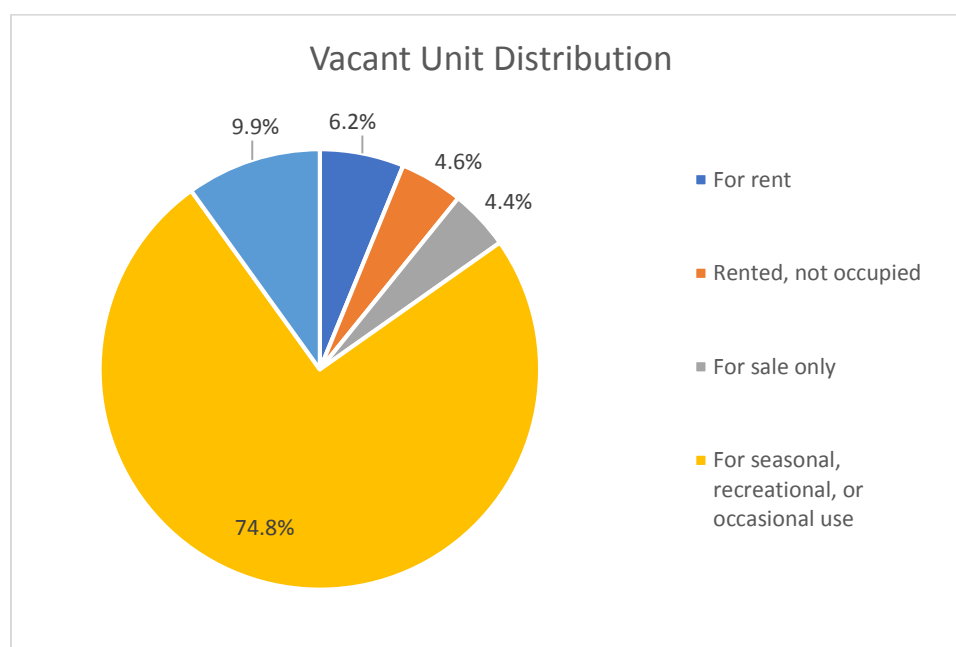
#### Vacancy and Housing Availability

A vacancy rate measures the overall housing availability in a community and is often a good indicator of how efficiently for-sale and rental housing units are meeting the current demand for housing. A vacancy rate of 5% for rental housing and 2% for ownership housing is generally considered healthy and suggests that there is a balance between the demand and the supply of housing. A lower vacancy rate may indicate that households are having difficulty finding housing that is affordable, leading to overcrowding or households having to pay more than they can afford.

Page is a small town with a large tourism industry given its convenient location near other destinations in the scenic country of northern Arizona and southern Utah. Given its tourism base, many homes in the city are used seasonally, which leaves them vacant for portions of the year. Nonetheless, the overall vacancy rate is relatively low in Page (16.1%) when compared to the county average (26.5%) but similar to Arizona's vacancy rate (15.9%). The percentage of occupied housing units in Page is 83.9%. **Figure 37** presents the breakdown of vacant units by type in Page that make up other the 16.1%.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 37. Types of Vacant Units**



Source: American Community Survey 2012–2016 Estimates, Tables B25002 and B25004

The types of vacancy in Page are indicative of community characteristics and the unmet needs of the population, as presented in **Figure 37** and summarized as follows:

- Approximately three-fourths of all vacancies in Page are attributed to seasonal, recreational, or occasional use. These units make up 12.1% of the total housing units in the city.
- Other types of vacancies account for 9.9% of vacant units, while 6.2% of vacant units are currently for rent on the housing market.
- Approximately 9% of vacancies comprise units that are either rented and not occupied or units that are for sale only.
- There are no vacant units for migrant worker housing and no homes that are sold but not occupied in Page.

#### *Ownership and Rental Unit Vacancy Rates*

**Table 12** provides homeowner and renter vacancy rates for 2010 and 2016 in Page. The homeowner vacancy rate in the city in 2016 was 1.3% and the rental vacancy rate was 3.1%. Comparatively, in 2010 the homeowner vacancy rate was 0% and the rental vacancy rate was 8.9%. While there were more ownership units vacant in 2016 than in 2010, the sharp decrease in rental unit vacancy rates is yet another symptom of an impacted rental housing market. It also indicates that the impacts on the rental market are likely fairly recent and reflect the changing economy with the growing tourism sector and the added lower-wage service industry jobs.

## 4. Demographic, Economic, and Housing Analysis

**Table 12. Homeowner and Rental Vacancy Rates in Page (2010 and 2016)**

Vacancy Rate	2010	2016
Homeowner	0.0%	1.3%
Rental	8.9%	3.1%

Source: American Community Survey 2006–2010, 2012–2016 Estimates, Table CP04

### Subsidized Housing

The City of Page has not yet introduced comprehensive policies or procedures designed to preserve lower-cost housing in the city. The City has adopted policies that prevent the conversion of multi-family apartments with more than four units into vacation rental units, which will help protect subsidized and affordable apartments for long-term rentals. The Coconino County Health and Community Services Department provides the following housing services at the county level within Page:

- Move-in rental assistance
- Eviction prevention rental assistance
- Mortgage foreclosure prevention assistance
- Utility-related emergency home repairs
- Utility assistance and deposits

There are three subsidized housing developments in the city. Two of these developments, Escalante Apartments and Canyon Lake Apartments, provide housing for extremely low-income households, with a household income below 30% of HAMFI. The third housing development, Whispering Sands, provides subsidized housing for qualified households in the extremely low-, very low-, or low-income category.

Despite the presence of three subsidized housing developments in Page, there is a large unmet need for affordable housing because Section 8 Housing Choice Vouchers are not available for use in the city. To be eligible to receive federal housing funding, including housing vouchers, a Public Housing Authority must have an Annual Contribution Contract with HUD. While the City of Flagstaff has a housing authority that is under contract with HUD and has the ability to manage housing vouchers, Coconino County does not have an authorized housing authority and does not have a contract that would allow the county to manage housing vouchers. The Flagstaff Housing Authority is the closest housing authority, but the vouchers issued from that location are only eligible for housing in Flagstaff, and are not eligible for housing in Page.

Native American residents seeking affordable housing can qualify for Section 8 Housing Choice Vouchers through the Navajo Nation Housing Authority, which are valid in Page city limits. Page residents that are not of qualifying Native American heritage have no access to subsidized housing via Section 8 Housing Choice Vouchers in the city.

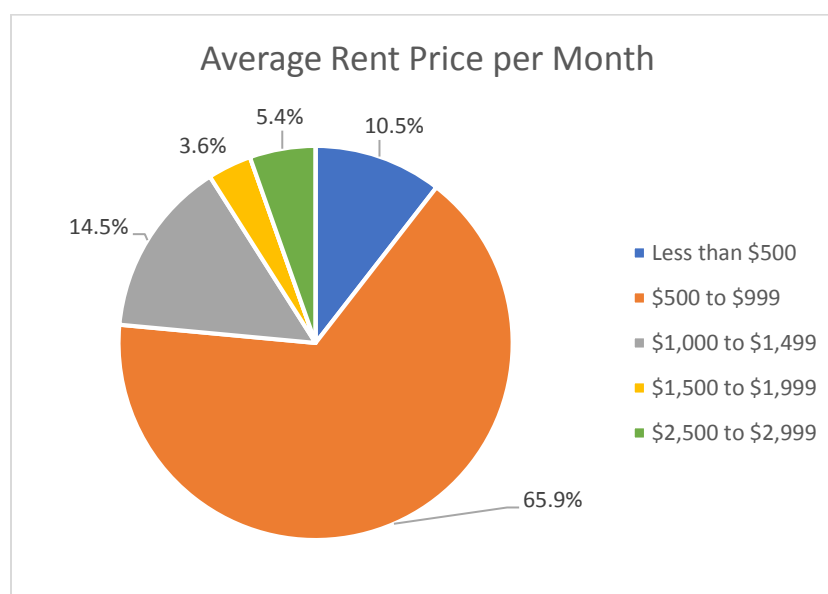
### Rental Housing Costs

#### *Rental Housing Costs*

Housing is usually one of the largest monthly costs for any household, and high housing costs can prevent households from meeting other fundamental needs, such as medical care, food, and education costs. The data below is an analysis of rents in Page and is compared to county and state figures for perspective.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 38. Average Rental Price per Month**



Source: American Community Survey 2012–2016 Estimates, Table DP04

- Approximately two-thirds of rental housing in Page costs between \$500 and \$999 monthly. This is a much higher rate than Coconino County or Arizona overall, where the incidence of monthly rental costs between \$500 and \$999 are 37.4% and 48.4% respectively. In the county and the state, more of the monthly rents fell into higher rent ranges, as discussed below.
- The second largest price range for rental housing (14.5%) is between \$1,000 and \$1,499 per month. This percentage is much lower than county or state averages that generally account for one-third of the population in this cohort.
- Median rent in Page is \$822 per month, which is lower than the median rent for both Coconino County (\$1,025) and Arizona (\$937).
- No rental units in Page reported rental rates between \$2,000 to \$2,499 per month. While a select 5.4% of rentals cost between \$2,500 and \$2,999 monthly, no rental units in Page are more expensive than that.
- Page has a larger spread of households clustered to either very low rental costs and very high rental costs than the county or state. County and state rental costs are generally more concentrated near the median rental rates of the area.

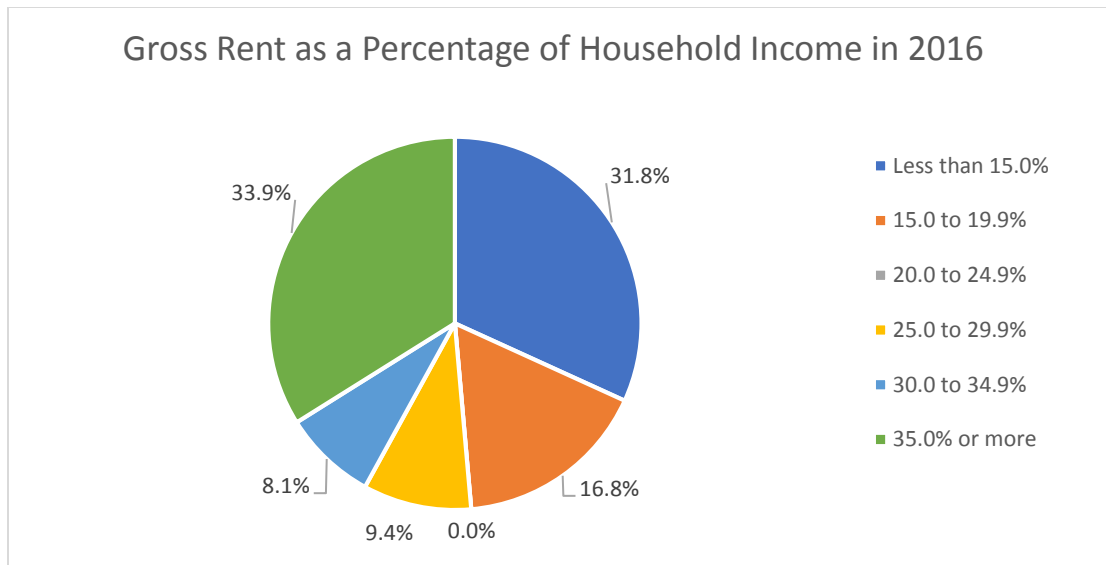
#### *Renter Income That Goes Toward Rental Costs*

An analysis of current rental costs and the incomes of resident households can help determine if there is a mismatch between the affordability of the existing housing stock and current residents' incomes. **Figure 39** presents the results of the analysis as the percentage of household income going toward housing costs in the past year. Housing is generally considered affordable if housing costs do not exceed 30% of the gross household income.

**Figure 39. Gross Rent as a Percentage of Household Income**



#### 4. Demographic, Economic, and Housing Analysis



Source: American Community Survey 2012–2016 Estimates, Table DP04

The analysis, as compared to county and state figures, indicates:

- Almost one-third (31.8%) of renters in Page allocate less than 15% of their income to housing costs annually.
- In contrast, 42% of renters in Page spend over 30% of their household income on rent. This percentage, while lower than county and state rates at 53.9% and 49.5% respectively, still indicates a clear disparity between rental prices and renters' income in the local population.
- The remaining renters spend between 15% and 30% of their household income on gross rent annually, with the largest portion of households (17% of total renters) in this bracket spending between 15% and 19.9% of their income on rent.

Combining the above housing type and tenure analyses supports the hypothesis that rental housing in Page is impacted by the housing shortage in more than housing available for owner occupancy. Additionally, while 32.3% of the owner-occupied housing in Page is mobile homes, 41.4% of the renter-occupied housing is mobile homes. Including the analysis completed regarding the condition of mobile homes in Page, it is evident that many of the renters in the city are living in poor-quality units, with significant deferred maintenance. These conditions are particularly difficult for lower-income households with children who have little or no housing choice and are trapped in dilapidated units.

#### *Data Contradictions – Rental Housing Costs*

Median rents in Page are lower than in Coconino County even though median incomes in Page are higher than in the county. Typically a housing shortage would lead to rising rents. Following linear housing patterns indicates that rents in Page should be higher than rents in Coconino County. The lower rents indicate other factors are at work in the rental housing market. First, rents are generally a reflection of housing quality, age, size, and location. While location is less of a factor in Page, housing quality, age, and size definitely play a role in housing rents, as well as housing type. Poor quality and older units, such as mobile homes with extensive deferred maintenance, are resistant to rent increases because households will choose to live in smaller units or to share units and pool incomes rather than live in severely dilapidated units. Landlords of dilapidated units will find that there is a soft rent ceiling for their

#### 4. Demographic, Economic, and Housing Analysis

units, and attempts to raise rents without improving unit quality will result in the unit remaining vacant. Similarly, the higher incomes among renters are likely a reflection of larger households with more people earning income, and larger families in smaller rental units. This analysis is supported by the overcrowding data, as well as by a comparison of median incomes for households renting units, which is \$43,490 in Page and \$34,223 and \$35,905 in the county and state respectively.

### Owner-Occupied Housing Costs

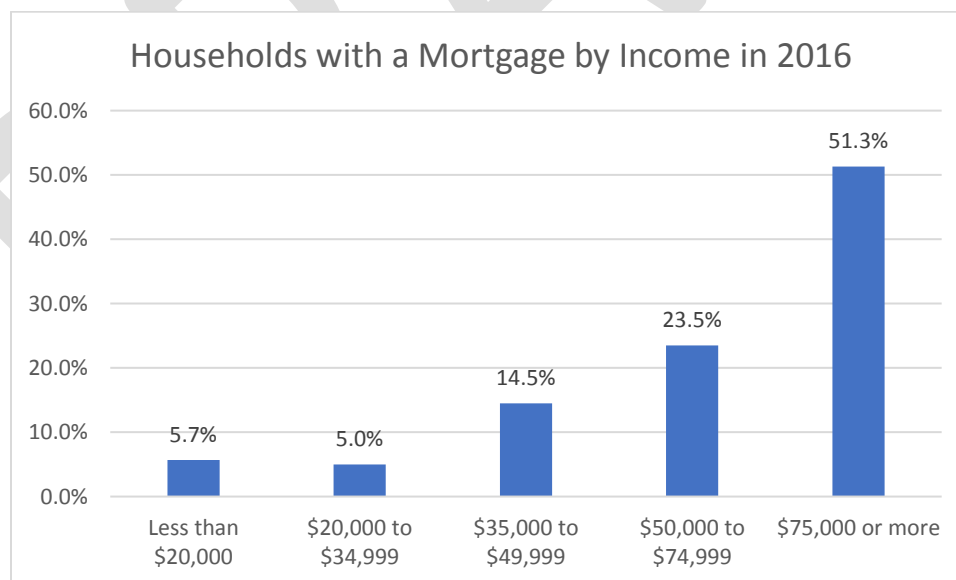
#### *Owner-Occupied Housing Inventory*

In recent years, construction of new homes has vastly decreased from its peak during the 1970s. Currently, the City is aware of only two planned housing projects in Page, which are currently pending approval. The developers intend to propose housing project with a combined number of 100 high-end single-family attached townhomes. The developers are both currently in the process of submitting plans for zoning approvals. On additional developer is considering a location in Page and is currently evaluating potential sites. The City of Page is not aware of any other planned housing developments, although there are a select few new single-family homes undergoing construction on existing vacant lots in approved subdivisions.

#### *Owner Income That Goes Toward the Mortgage*

Based on data collected from the ACS, an analysis was conducted to compare current mortgage costs with household incomes to determine the affordability of the existing housing stock relative to residents' incomes in Page. **Figures 40 and 41** present information on households with mortgages by income and monthly housing costs for different income brackets.

**Figure 40. Households with Mortgage by Income**



Source: American Community Survey 2012–2016 Estimates, Table S2506

About 74.8% of households with mortgages earn \$50,000 or more in Page, and the median household income for owner-occupied households with a mortgage is about \$76,420. Owner-occupied households that earn less than \$34,499 a year almost universally pay more than 30% of their income on housing, while 23.3% of households

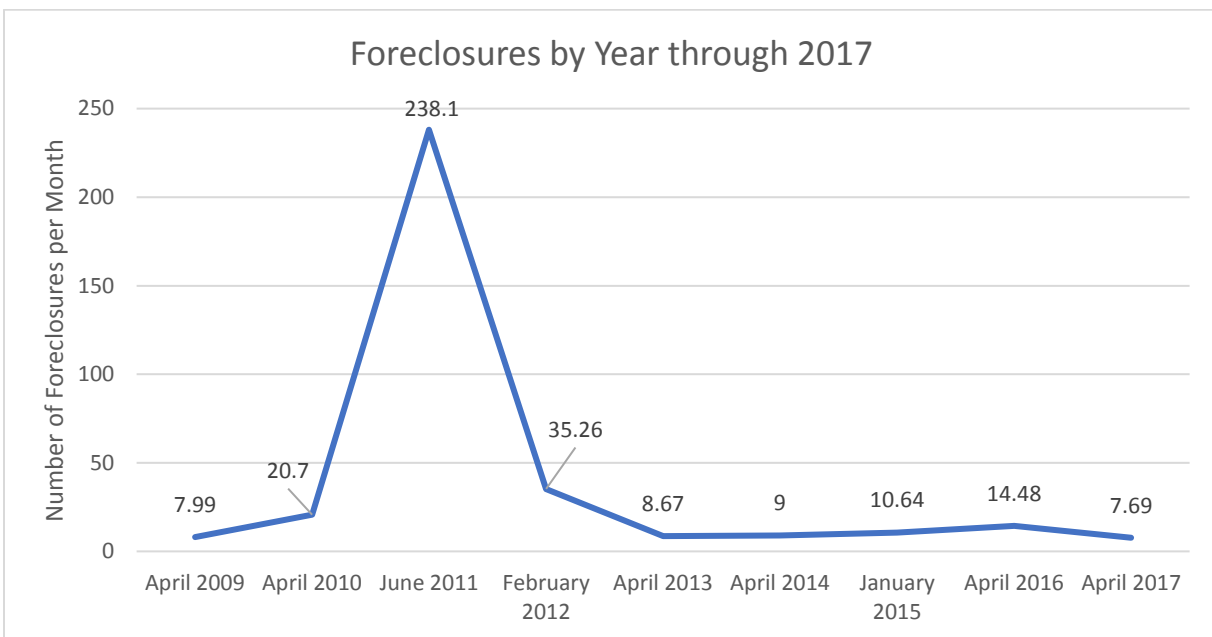
#### 4. Demographic, Economic, and Housing Analysis

earning \$35,000 or more annually pay more than 30% of their gross income on housing. These percentages indicate that owners experience less of a cost burden than renters in Page.

##### *Turnover and Foreclosure Rates*

According to data obtained from both the ACS and Zillow, home turnover and foreclosure rates have returned to rates similar to those in pre-recession Page. This conclusion is also reflected in county and state trends.

**Figure 41. Foreclosures by Year (2009 to 2017)**

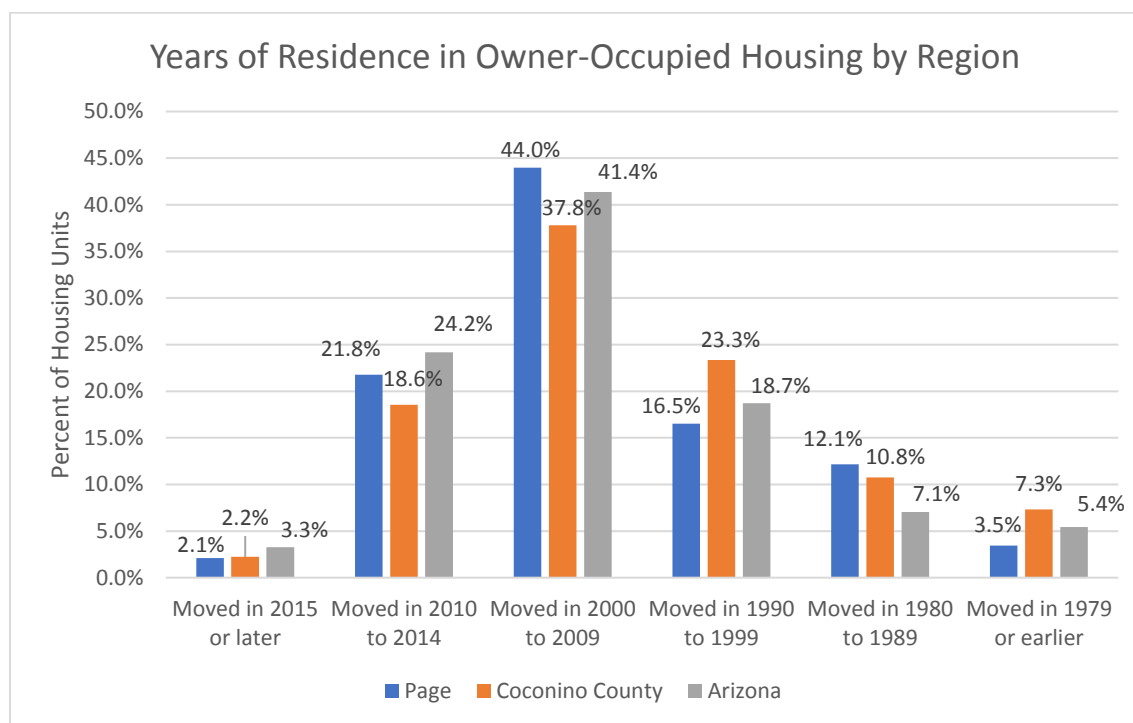


Source: Zillow 2018

There is evidence that the collapse of the 2007 housing bubble that impacted the rest of the nation was less severe in Page than in other areas. This is likely due to the general lack of newer housing and the static housing inventory, the stable population numbers, and the generally reliable employment offered through NGS at the time. Combined with Page's remote location, these factors likely worked together to insulate the city from the worst of the housing collapse, though the community would have been vulnerable to the following recession, particularly as it impacted tourism. **Figure 42** compares owner-occupied housing stability across the county and state.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 42. Years of Residence in Owner-Occupied Housing by Region**



Source: American Community Survey 2012–2016 Estimates, Table B25038

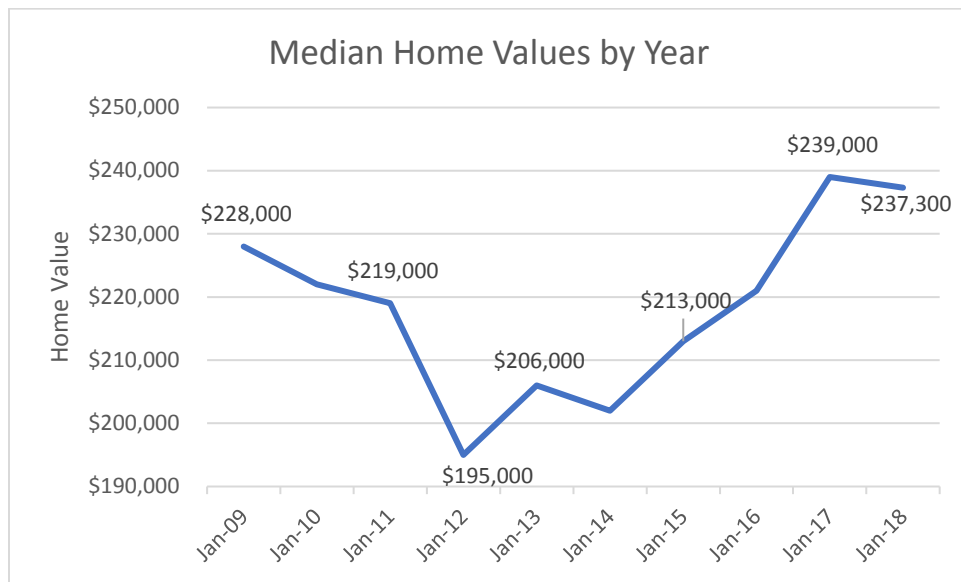
Approximately 44% of housing units exchanged ownership in Page between 2000 and 2009, which is a significant rate of turnover given the average of approximately 834 moves in owner-occupied housing over a span of 10 years. The housing turnover rate during that time period was similar at the county and state levels, indicating a general increase in homeownership in the region.

#### *Housing Trends (Housing Pricing, Sales, and Inventory)*

According to Zillow and Trulia (**Figure 43 below**), home values and median rents have significantly recovered from pre-recession levels. Coconino County consistently projects higher median home prices than Page, while Arizona overall averages lower median home values than Page. Nonetheless, Coconino County and Arizona data also reflect this dip in median housing values during the Great Recession. The median home value in Page in January 2018 was approximately \$237,200, shown in **Figure 43**, marking a full recovery from the decline in home values that bottomed out in 2012. In comparison, Coconino County had a significantly higher median home value of \$334,000, while Arizona's median home value was \$233,000.

#### 4. Demographic, Economic, and Housing Analysis

**Figure 43. Median Home Values by Year in Page (2009 - 2018)**



Source: Zillow 2018

#### *Home Sales*

There were 8 new single-family home sales in Page and the surrounding area between January 2009 and January 2018 and 550 single-family home resales.

#### *Sales Prices*

The average sales price in Page has increased considerably since 2012, reaching a peak in 2016 before readjusting downward slightly in 2017. Home values in Page dropped 14.4% during the peak of the recession, and have since increased 21.6%. Based on interviews with real estate professionals in Page, the owner-occupied housing market has a few key challenges. First, the market for lower-priced homes (less than \$250,000) is much stronger than the market for higher-priced homes (over \$300,000). There are homes in the higher price range that have been on the market for extended periods without movement. Based on Zillow's affordability calculator, a typical household with approximately \$800 a month in other debt and with \$10,000 down would need to earn about \$96,000 to afford a \$300,000 home. While incomes are higher in Page than in the rest of the county, they are not high enough to support housing prices in the \$300,000s.

#### *Accessible Housing Units*

Page has a higher rate of disability in the general population than either the county or the state. Disabled persons and households with a disabled family member often live on fixed incomes or have limited disability payments intended to supplement household incomes. These factors limit their ability to pay for housing while increasing their need for affordable units designed with accessibility in mind and located close to key amenities, like grocery stores or healthcare centers. While some single-family units in Page have been modified to be accessible for disabled household members, these modifications are not part of a comprehensive accessibility program and are not tracked or mapped.

## 4. Demographic, Economic, and Housing Analysis

The majority, 85%, of homes in Page—single-family units (49%) and mobile homes (36%)—are relatively old, and growth has been minimal and gradual since the housing development boom in the 1970s. Sixty-six percent of the housing stock is at least 30 years old. Considering the average Page home was built between 1980 and 1989 and the Americans with Disabilities Act (ADA) requiring ADA-compliant accessibility was not passed until 1990, it is reasonable to assume that most homes in Page were not constructed to be ADA-compliant. Design characteristics of the existing housing stock lack considerations for disabled or aging populations, which generally include universal design elements such as no-step entrances, wide halls and doorways for wheelchair access, single-floor living, or wheelchair-height electric controls or handles on walls, cupboards, and faucets.

Upgrades or retrofits to existing units to increase accessibility can be costly and can decrease the affordability of these homes. In addition, the aging and disabled population is often financially constrained and on fixed incomes, further decreasing their ability to invest in accessibility improvements. The accessibility challenges of the existing housing stock limit the housing options for disabled or senior residents in Page.

The housing condition survey indicates that a large portion of residences in Page already are experiencing deferred maintenance ranging from foundation and electrical repairs to re-roofing or window replacements. A significant portion of the housing units that were dilapidated or in need of substantial repairs were mobile home units. The lack of upkeep on many of these homes suggests that there is a general lack of funding or time to improve the existing housing stock, even without a focus on the lack of universal design elements and unit accessibility. Based on the housing type mix discussed earlier, housing age, and housing quality, it is very likely that there is a large unmet need for accessible housing in Page, particularly housing that is affordable to low- and very low-income households.

## Vacant Land Inventory

### *Vacant Land in Page*

The majority of vacant land (82%) is located in the Future Development District. This district includes some areas of the city that are not likely to develop in the near future and most likely are not currently served with public facilities. This vacant land could develop with outdoor recreational uses but would require facilities to be permitted in these outlying areas.

**Table 13** and **Figure 44** reflect the breakdown of the remaining vacant land in the city. This information is also reflected on the vacant land map (**Figure 43**).

**Table 14** breaks this down one tier further, listing the zoning categories in each district.

**Table 13. Remaining Vacant Land by District**

Zoning District	Vacant Acreage	Percentage of Vacant Land in City
Residential	65.99	0.8%
Commercial and Mixed-Use	16.25	0.2%
Business and Industrial	165.22	2.1%
Planned Development	1193.61	14.9%
Airport Property	21.90	0.3%
Future Development District	9562.42	81.8%



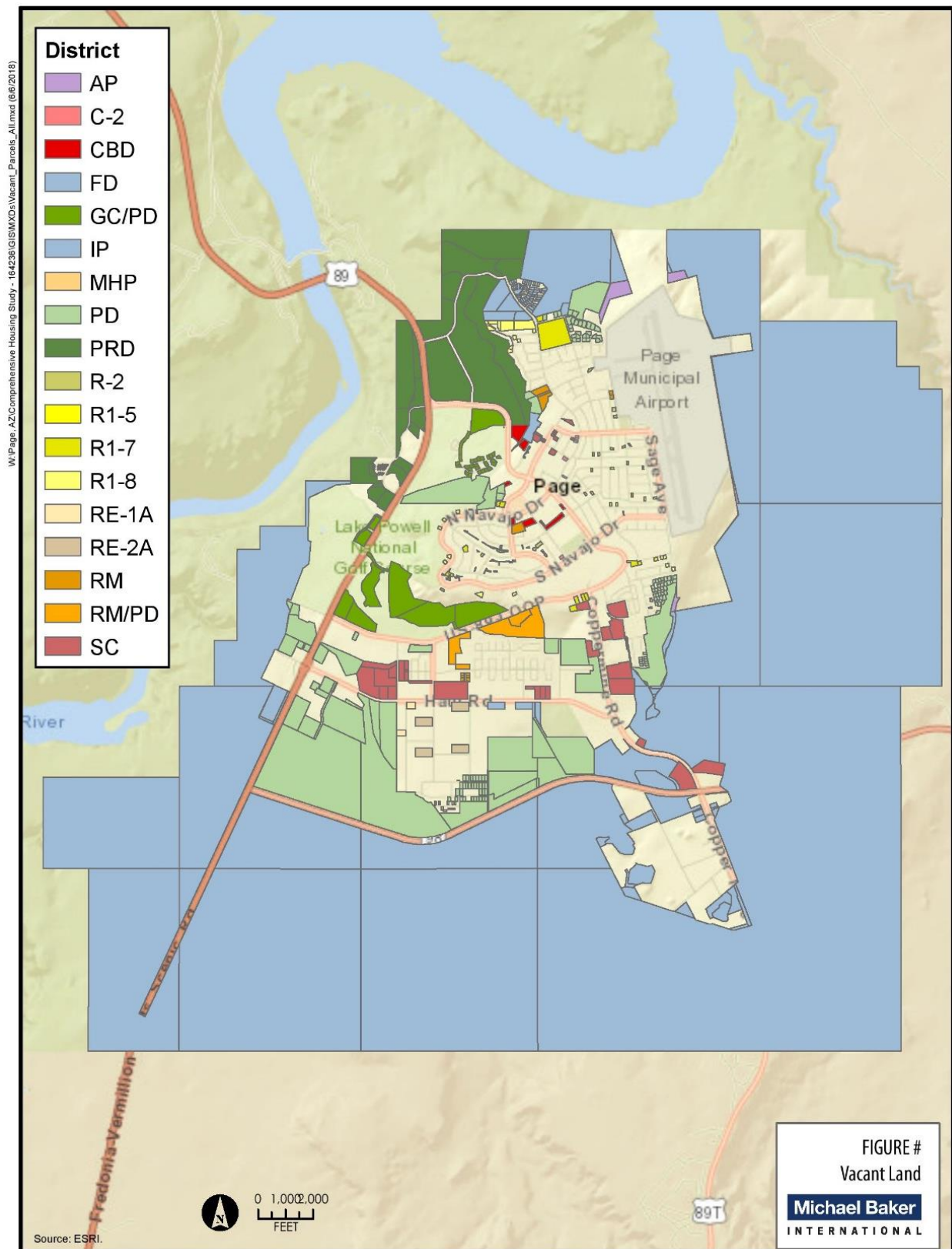
#### 4. Demographic, Economic, and Housing Analysis

**Table 14. Vacant Acreage by Land Use**

Zoning District		Vacant Acreage
<b>Residential Districts</b>		
RE-2A	Residential – Estate/Two-Acre	11.72
RE-1A	Residential – Estate/One-Acre	2.05
R1-8	Single-Family Residential 8,000	12.61
R1-7	Single-Family Residential 7,000	23.01
R1-5	Single-Family Residential 5,000	2.31
R-2	Small-Lot Residential 2	1.60
RM	Multi-Family Residential 3	8.45
MHS	Manufactured Home Subdivision	0
MHP	Manufactured Home Park	4.25
<i>Total Vacant Residential Acreage</i>		<i>66</i>
<b>Commercial Districts and Mixed-Use Overlay District</b>		
C-2	Community Commercial	1.17
CBD	Central Business District	15.08
<i>Total Vacant Commercial and Mixed-Use Acreage</i>		<i>16.25</i>
<b>Business and Industrial Districts</b>		
BP	Business Park	0
SC	Service Commercial	104.09
IP	Industrial Park	61.13
<i>Total Vacant Business and Industrial</i>		<i>165.22</i>
<b>Planned Area Development District</b>		
PAD	Planned Area Development	1,046.19
GC/PD		107.49
RM/PD		39.93
<i>Total Vacant Planned Area Development Acreage</i>		<i>1,193.61</i>
<b>Airport Districts</b>		
AP	Airport Property	21.90
AA	Airport Approach Zone Overlay	0
ACZ	Airport Clear Zone Overlay	0
<i>Total Vacant Airport Acreage</i>		<i>21.90</i>
<b>Special Districts</b>		
FD	Future Development District	9,562.42
FL	Federal Lands District	0
POS	Parks/Open Space	0
<i>Total Vacant Special Districts Acreage</i>		<i>9,562.42</i>
<b>Total All Vacant Land</b>		<b>11,025.39</b>

#### 4. Demographic, Economic, and Housing Analysis

Figure 43. Vacant Parcels, All



#### 4. Demographic, Economic, and Housing Analysis

##### *Vacant Residential Land*

There are approximately 8,000 acres of vacant land in the city, of which only 66 acres (less than 1%) are zoned for residential development. **Table 15** shows the vacant residential land categorized by district. This information is also shown on the Vacant Residential Land Map (**Figure 45**). The table also gives an approximate number of units that could be developed on this land, also summarized below.

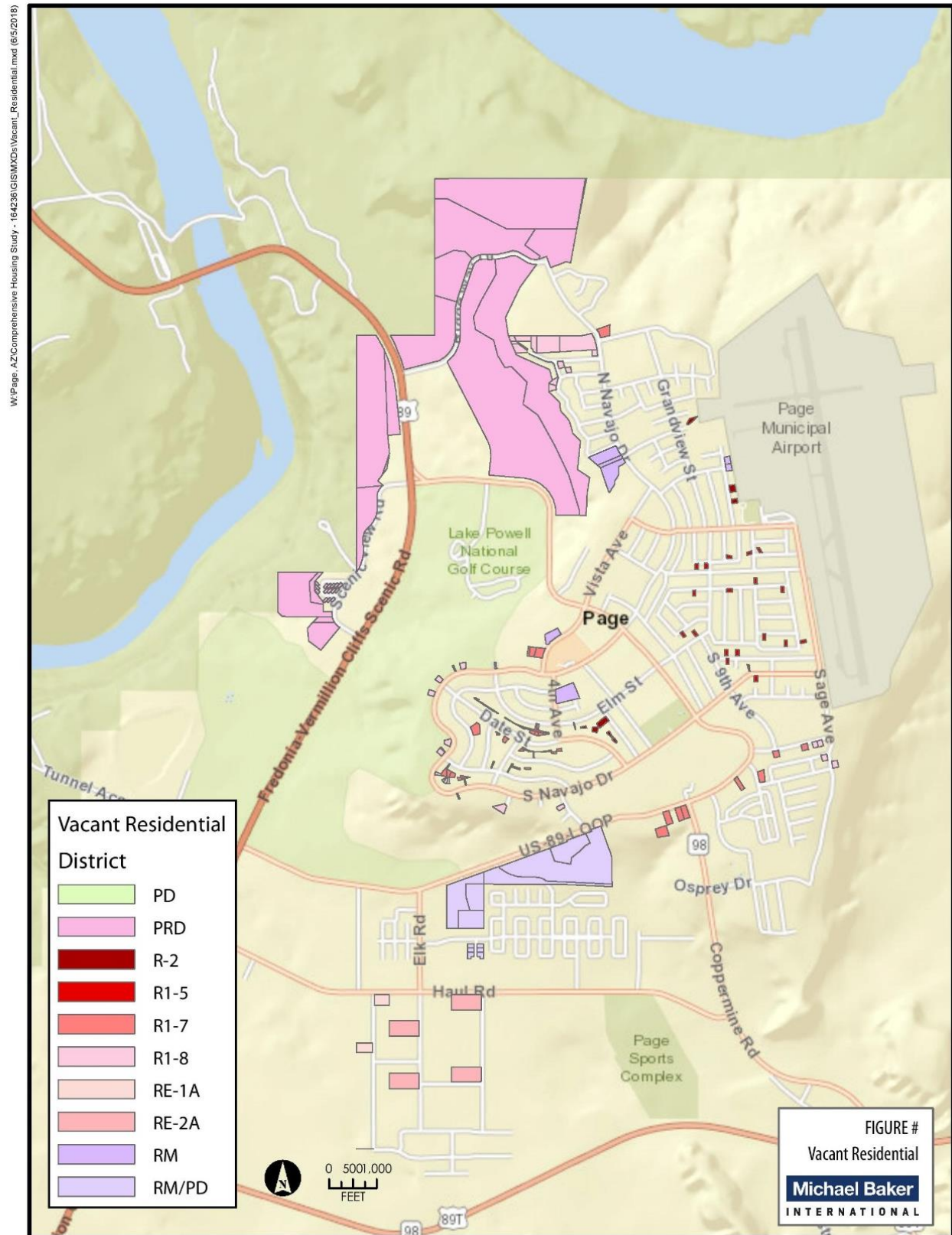
- Residential Estate – 14 units
- Low Density – 68 units
- Moderate Density – 176 units
- High Density – 101 units
- Manufactured homes – 43 units

**Table 15. Vacant Residential Land by Zoning District**

Zoning District		Max. Allowable Density (dwelling units per acre)	Acreage	Approx. Units
<b>Residential Districts</b>				
RE-2A	Residential – Estate/Two-Acre	0.5	11.72	6
RE-1A	Residential - Estate/One-Acre	1	2.05	2
R1-12	Single-Family Residential 12,000	3.6	0	0
R1-8	Single-Family Residential 8,000	5.4	12.61	68
R1-7	Single-Family Residential 7,000	6.2	23.01	143
R1-5	Single-Family Residential 5,000	8.7	2.31	20
R-2	Small-Lot Residential 2	SF: 8, all other: 12	1.60	13
RM	Multi-Family Residential 3	min 12	8.45	101
MHS	Manufactured Home Subdivision	10	0	0
MHP	Manufactured Home Park	10 spaces/acre	4.25	43
<b>Total Vacant Residential</b>			<b>66</b>	<b>402</b>

#### 4. Demographic, Economic, and Housing Analysis

Figure 45. Vacant Residential



#### 4. Demographic, Economic, and Housing Analysis

The vacant land inventory indicates that there are some immediate opportunities for residential development in Page. Planning for longer-term housing should include analysis of the Future Development District to identify what areas would be best suited for housing, along with a utility and resources analysis to ensure there are sufficient resources to meet long-term projected growth.

DRAFT

# Chapter 5 - Current and Future Housing Needs

The following section describes the current and future housing needs and identifies gaps and barriers to housing based on an analysis of demographic and economic trends, housing data, and the themes and comments from the community engagement efforts.

## Housing Needs

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The section is divided into four specific groups in Page:

- Retiree, senior, and accessible housing needs
- Housing needs for families with children
- Tourism sector labor housing needs
- Workforce housing needs

### *Retiree, Senior, and Accessible Housing Needs*

As discussed in Chapter 4, the number of seniors in Page is significantly lower than in the county or state. The seniors who do live in Page generally have higher incomes and own their homes, which provides them with economic and housing stability. The city does not have many lower-income seniors—not because they don't exist, but because there is no suitable affordable housing and because the cost of living and the remote location make Page a difficult community for seniors who do not have substantial resources. The result is that many residents have been (and likely will be) unable to age in place in Page, and must give up their community connections and neighborhood resources to relocate to areas with more affordable housing. This dislocation often negatively impacts the health of the seniors who leave their home and community. It also represents a loss of community history, particularly when the seniors are long-term residents.

In addition, upon retirement, seniors are constrained to a fixed level of income, often relying on Social Security payments to supplement their cost of living and daily needs. As the cost of living and housing prices continue to rise, seniors may feel constrained in the housing market given their fixed income. A lack of appropriate affordable housing stock may limit the ability of seniors to move or change their current living situation, despite their need for more accessibility or a higher level of care. Seniors who own their homes may be ensnared in ownership after decades of inflation and increasing costs of living without appropriate funding to change their living situation.

Retirees and seniors who were interviewed expressed concerns with increasing space rents in the city's mobile home parks. Other concerns were the lack of low-income rental units and the lack of new mobile homes in the city. Many residents expressed frustration that the only rental spaces for mobile homes are controlled by park owners, who do not allow any new units except the ones they install. Further, there are only three subsidized apartment complexes in the city.



## 5. Current and Future Housing Needs

Accessibility for units is largely up to the owners of the property. Two of the three mobile home parks do not have suitable streets to allow for accessible access. During the focus group discussions, seniors expressed their concern regarding the age and quality of housing in Page. Concerns ranged from inaccessible housing to unsafe structural problems, and health concerns like bedbugs and unsanitary conditions. Some of these issues are amplified by the accumulation of large garbage items such as unsanitary mattresses, cars, trailers, broken boats, and other items not picked up during standard garbage collection. While Page has a disposal facility where residents can bring large items free of charge up to four times a year, there is no pickup service available. This can limit the ability of proper disposal for those without the means or ability to transport such items. This junk builds up on lots or in homes or next to apartments and is a serious issue for seniors or disabled residents who do not have the physical or financial capacity for bulky item cleanup.

**Housing Need:** To support aging in place, seniors and persons with disabilities need affordable residences with ADA accessibility to compensate for increasing mobility hindrances or health complications. They also require access to local resources for food, healthcare, and other provisions. Senior housing takes different forms and includes the following options:

1. Single-story, modest, ADA-accessible units with universal design options. Units can be attached or detached, but would benefit both economically and socially from a communal design with shared outdoor spaces and amenities that would allow for centralized maintenance. Units would target seniors who are able to live independently and seniors who need assistance to maintain independence.
2. Multi-unit assisted living units, with options for memory care. Units should be modest in size and amenities to maintain affordability, with studio and one-bedroom configurations, shared central facilities, including meals and laundry, and assisted living options, and may be multistory with elevator access to improve economies of scale.
3. Housing assistance to cover costs in existing housing. Costs could include utilities, rents, housing rehabilitation, and accessibility improvements to address the needs of seniors and persons with disabilities.

### *Housing Needs for Families with Children*

The population of youth in Page experienced a significant increase between 2000 and 2016. Overall, this trend indicates that Page has a growing demand for large family housing. Data also shows a trend toward larger family sizes and therefore the need for homes with many bedrooms to prevent overcrowding.

With a shortage of affordable housing, lower-income families with children are especially impacted. Almost half of extremely low-income households have children under the age of 6, and two-thirds of very low-income households have children under the age of 6. The age and condition of much of the lower-cost housing in the city also indicate that a substantial number of families currently living in Page are living in substandard units, including aged and dilapidated mobile homes with potential health and safety risks, as well as overcrowded smaller housing units. Many of these households need multiple wage earners to afford rents and have little opportunity for homeownership.

**Housing Need:** Page needs a range of housing types, sized for families with children, and either subsidized or designed to be affordable, including both rental units and first-time homebuyer opportunities. Rents and housing costs should be aligned with household earning potential for workers employed in the tourism industry. Responses to this housing need may include:

## 5. Current and Future Housing Needs

1. Affordable apartments with two- and three-bedroom options. Units may be subsidized to reduce rents or designed with limited amenities to reduce costs or both. Units should be built and designed to meet high energy efficiency standards to reduce monthly housing costs.
2. Small multi-unit housing (both rental and ownership units) such as duplexes, triplexes, and quadplexes, with two- and three-bedroom options and amenities targeting young families with children.
3. Entry-level homeownership opportunities, including manufactured (modular) housing, compact tract housing, condominium units, and townhomes with two-, three-, and four-bedroom options.
4. Homebuyer assistance programs that help reduce down-payment costs or buy-down mortgages to help make ownership more affordable. Programs can be structured as silent second mortgages repayable on resale to encourage program longevity.
5. Rent-to-own housing opportunities and land trust housing. Rent-to-own housing allows residents to invest in housing for the long term without requiring large down payments. Housing trusts allow cities to use assets, such as land, to help offset housing costs without losing long-term financial interest in the asset.
6. Housing rehabilitation programs that help address minor to moderate repairs and improve overall housing quality to supplement those provided by Coconino County. Programs can be structured as revolving loans to improve overall program longevity.

### *Tourism Sector Labor Housing Needs*

In recent years, Page has focused its development efforts on expanding the tourism, recreation, and the hospitality industry. The city is home to a sports complex and an 18-hole championship golf course. Page markets itself as the “Center of the Grand Circle” near tourist destinations including the Glen Canyon National Recreation Area, which includes the Colorado River and Lake Powell, and the canyons of the Navajo Nation. Horseshoe Bend and Antelope Canyon serve as major attractions nearby, with two marinas near Page offering opportunities for boating, watersports, and relaxation. Hiking trails abound, with the Rim Trail offering 10 miles of views around the city’s mesa. Indoor opportunities include Native American cultural attractions, local museums, and art for tourists to experience. The success of the tourism industry in Page has implications for the local housing needs of the labor population serving this industry.

The average seasonal visitation records generated by the Community Development Advisory Board indicate that Page experiences the highest tourist traffic between April and August. However, the tourism season has been lengthening to include the early spring and late fall, and tourism has been growing every month through the year. Nonetheless, tourism is still a cyclical industry, and while tourism labor demands are higher during the peak season, workers may have difficulty finding sustained work or hours during the off-season in Page. The labor market responds to these cyclical needs by importing labor, both from the region and from the Navajo Nation, to fill peak season jobs. These workers need housing, but they are not generally in a position to purchase a home or make Page their year-round residence. As a result, they share housing, sublease from other renters, live with extended family members, occupy recreational vehicles, tolerate substandard housing, or face longer commutes.

Most employers interviewed for this study could not see major opportunities to resolve the rental issue. Some of the larger hotels and employers are attempting to resolve issues internally by buying long-term rental units and then renting only to employees to ensure employees have a place to live. All employers interviewed, including the City of

## 5. Current and Future Housing Needs

Page, have had experiences with hiring employees and then having them not report to work because they cannot find housing. These incidents have resulted in informal networks to provide rooms and beds to new employees.

**Housing Need:** The tourism industry needs housing suitable to support seasonal and temporary workers. The housing should be affordable to persons earning service industry wages, located close to employers like hotels and restaurants, and sufficiently cost effective to build so that periodic vacancies do not put the units in the red. Housing options could include:

1. Dormitory housing with dedicated bedrooms and bathrooms, but with shared meal preparation facilities, laundry, and common spaces. An advantage to dormitory housing is that it could provide units for tourism workers during the peak season, and then provide low-cost housing for students attending college at the local Coconino Community College campus in Page. A major advantage to this dual-use housing is that it would both support seasonal workers and encourage college education by reducing the housing barrier.
2. Single-room occupancy units, designed to be studio or efficiency units with communal spaces and shared amenities. These units could also be used as student housing during off-peak seasons.

### *Workforce Housing Needs*

#### **Entry-Level Workforce Housing**

Teachers and other entry-level professionals have a very difficult time finding suitable housing in Page. They are often forced to share housing, accept temporary living arrangements, or tolerate substandard housing. While this segment of the workforce earns more than most tourism industry employees, the sheer lack of housing in Page prevents them from finding suitable long-term residences. As a result, there is high turnover in the entry-level professional workforce, which has cascading impacts on the community.

**Housing Need:** While much of the workforce housing needs overlaps with the family housing needs, entry-level workforce housing often does not require the same amenities as housing for families with children. Examples of housing to meet this need include:

1. One- and two-bedroom multi-unit housing, available both for rent and for households interested in joining the ownership market, including townhomes, condos, and apartments. Units should include standard amenities like full kitchens and in-unit laundry facilities, as well as shared community amenities like swimming pools, fitness rooms, clubhouses, dog parks, and other assets.

#### **Mid-Level Workforce Housing**

Critical service providers like the hospital, water/sewer operators, police, and City government were interviewed in two separate focus groups. This group generally expressed concerns that housing was a major issue in attracting new employees. Employees were having issues finding a home because the competition for affordable single-family homes is fierce and included competition from out-of-area buyers who may be looking to invest in short-term rentals. The vast majority of homes on the market are resales, and most have had little to no modernization, may be in need of moderate to major repairs, and had expensive deferred maintenance problems. In addition, many service providers expressed concern about the availability of quality handymen or contractors in Page to complete maintenance work or to rehabilitate older housing. For the service providers interviewed, the experiences of their employees mirrored that of the tourism industry except that most were looking to buy instead of rent housing.

## 5. Current and Future Housing Needs

**Housing Need:** Mid-level professionals generally need different housing than entry-level workers or seasonal workers. These professionals often have families and are looking to become established and vested in their community. They look for housing types that fit their lifestyles, balancing convenience and cost. Preferred units might include:

1. Single-family stick-built tract homes, townhomes, and higher-end manufactured housing. While traditional stick-built wood-frame housing is considered standard, there have been significant advancements in the manufactured home industry over the last few decades. New manufactured units are built to higher standards than the typical stick-built home, with excellent energy efficiency options and a wide range of floor plans and architectural features. Homes should include a range of bedroom and bathroom configurations, including master suites, half-baths, attached garages, and a scale of finishes to respond to budget concerns.

### NGS Contractor Housing

The City of Page will need to plan for an influx of temporary workers as part of the NGS decommissioning process. In normalized housing markets, these workers would be looking to rent units. They would not want to sign year-long leases, and would be looking for month-to-month units or short-term rental agreements. Page does not currently have a normalized housing market. The influx of temporary workers will likely absorb the slim vacancy rate in rental units and still need more housing. Unfortunately, it would be nearly impossible to build additional housing in time to meet the increasing demand, and the housing need across the different employment sectors is so great that any new housing would likely be absorbed before it could begin to meet the needs of the temporary NGS workers.

**Housing Need:** The City will need either to support housing opportunities for the temporary NGS contractors or to tolerate the impromptu housing solutions the contractors devise, which may include workers living in recreational vehicles, sharing rental housing units among several workers, living in lower-cost motels or other tourist accommodations, and living in campgrounds. The City may have opportunities to leverage the influx of temporary workers to begin to address longer-term housing needs. Some opportunities might include:

1. Develop a temporary RV park that can convert to a manufactured or tract housing development once the temporary workers complete their tenure. Require tenure agreements that will limit temporary workers from establishing permanent residences, and use rents collected during the temporary housing phase to initiate infrastructure improvements.
2. Encourage property owners to convert older motels, particularly those in need of modernization, into temporary housing for workers, with the goal of converting to permanent single-room occupancy or dormitory housing to meet future seasonal worker housing needs. Incentives for property owners could include buyouts, modernization subsidies or loans (for projects where some of the units are converted to housing and the remainder continue as tourist accommodations), property swaps, or other incentives.

### Special Considerations

As the City considers means to diversify, improve, and expand Page's housing stock, it is important to address best practices for neighborhood design and to mitigate for potential impediments to fair housing choice. One method is to intentionally develop mixed-income neighborhoods with a range of different housing types. These could include neighborhoods with single-family homes, duplexes, quadplexes, manufactured housing, and a range of unit sizes, rental and ownership options, and neighborhood amenities. Neighborhoods with residents of mixed incomes and with mixed housing types tend to be more stable and offer more economic opportunities than homogenous neighborhoods.

## 5. Current and Future Housing Needs

Another consideration is the future of the city's current mobile home stock. This report advocates manufactured housing as a potential solution to some of Page's unmet housing needs. These recommendations are for factory-built manufactured homes intended to be assembled on-site on permanent foundations. These recommendations do not include adding to the existing mobile home stock. Page's aging and dilapidated mobile homes are a drag on the housing stock, pose potential health and safety risks to some of the city's most vulnerable populations, and will be a long-term challenge to effectively address. There is a role for mobile homes in the city's housing stock; however, the current housing type balance is so overloaded with the existing mobile homes that it is inadvisable to add more mobile homes in the near future, unless they are new units and will augment or replace uninhabitable units in the existing mobile home parks.

During conversations with mobile home residents in the different parks in the city, the community engagement team heard residents state on several occasions that they hoped to purchase land somewhere in or near Page, and move their existing unit to the new site. While some of the units referenced were fairly new and could manage a short relocation without serious damage, others were in need of major repairs and, if successfully moved, would only blight the new neighborhood. To the extent legally feasible, either through design guidelines or through other regulation, the City should work to limit the number of times that older manufactured homes and units in poor condition can be moved and where they can be established. The City does not allow mobile homes built before 1976 to be moved into or within the City. No data is available regarding the frequency with which mobile home units are moved, so the research team does not know if residents do frequently attempt to relocate mobile homes in Page or if this was more a response to the community's desire for more affordable housing choices.

## Gaps Analysis

### *Gaps in Housing Type*

Overall, Page has a shortage of all types of housing, as demonstrated by the low vacancy rate for homeowners and renters. Certain types of housing are less well represented, including duplexes and multifamily buildings with more than 20 units. The above housing needs section also identifies a gap in senior housing, accessible housing, family housing, seasonal workforce housing, entry-level professional workforce housing, mid-level professional workforce housing, and temporary NGS contract worker housing. Housing types include single-family units, townhomes, condominiums, a range of apartment units, manufactured homes, and a range of other housing that can help address the different housing needs of diverse populations.

### *Gaps in Housing Affordability*

An analysis of the cost of available housing for both rental units and owner-occupied units was performed to determine whether there is a gap between resident incomes and the cost of housing in the community. Research on this mismatch in affordability was performed separately for both rental units and owner-occupied units to identify the needs of different populations in Page. Data from these estimates analyze housing affordability as the percentage of household income going toward housing costs annually. Housing costs at or less than 30% of the household's gross income are considered affordable, and households allocating more than 30% of their gross income to housing are cost-burdened.

Based on the analysis completed in Chapter 4, there is a gap in the affordability of rental housing costs and household incomes in Page. Rental housing costs significantly surpass local household incomes and minimize the availability of affordable housing units in the city. The result is overcrowded units, substandard housing with deferred maintenance, and rent-burdened households, particularly those with children.



## 5. Current and Future Housing Needs

Housing costs for owner-occupied units are also a significant indication of housing affordability when compared to household income. While the owner-occupied housing units did not exhibit the same cost burden problems as the rental units, supply problems do exist for ownership housing in Page. There is a shortage of lower-cost ownership units affordable to mid-level professionals and family households. As a result, available units in the traditionally affordable price bracket sell for a premium. The lack of new units also means that there is little incentive to modernize the existing housing stock, as most of the units on the market have dated fixtures and many have deferred maintenance issues. The lack of low-cost homeownership opportunities also means that households that otherwise have the means and desire to own their homes are stuck in the rental market. These households often have the resources to afford the highest-quality rental units, which raises rental prices and puts pressure on the rest of the rental market, reducing vacancy rates and contributing to the rental housing conditions discussed above. Adding housing stock to just about any of the types listed in the housing needs section will ripple through the rest of the housing market in Page and will provide at least some level of relief to the impacted market.

The imminent closure of the Navajo Generating Station may widen the gap between housing affordability and household incomes in Page in the future. As employment opportunities dwindle at the plant, it is likely that former NGS employees who elect to stay in Page and enter the labor market in other sectors will experience a period between jobs as they search for comparable employment that matches their skills profile. The lack of employment or steady income may increase the risk of former employees defaulting on rental or mortgage payments as the economic landscape of the local community shifts. Supporting this population throughout this change could prevent long-term failure to regain financial security and independence, and prevent serious instability in the housing market.

### Barrier Analyses

#### *Tourism Impacts*

While the tourism economy in Page is still evolving, the combination of Arizona state law supporting property conversions and the online management tools available for short-term rentals means that this segment of the tourism accommodation market is growing. Between 2010 and 2016, vacant units used for recreational or seasonal homes increased from 2% to 12% of the total housing stock in Page. As this market expands, it will put increasing pressure on the housing stock and will likely act as a barrier to households finding suitable housing. The increase in vacant units for seasonal, recreational, or occasional use has and will continue to result in fewer units available for long-term rent or purchase. State law limits the ability of communities to respond to this barrier; however, this issue is common to all tourist-centric economies and will continue to be a critical issue.

#### *State and Local Codes*

One of the most serious barriers to housing development in Page has been the lack of consistent development practices, policies, and standards, and the shortage of development-ready land. Medium to large scale development, such as housing tracts, involves significant investment and financial risk. Land costs, labor availability, material costs, and market all play key roles in determining where development is most likely to happen. These costs are all vulnerable to the regulatory component of development, including development application procedures, entitlement processes, zoning approvals, infrastructure plans, and engineering standards. Inconsistency or a lack of a designated path in these government processes substantially increases developers' risk, raises development costs, extends the time necessary to get projects on the ground, and generally acts as a disincentive to develop in Page. Development process streamlining is a recognized benefit for jurisdictions looking to encourage more private development, and creating a process that is transparent and that operates on a set timeline can help developers accurately gauge the risk and cost.



## 5. Current and Future Housing Needs

The lack of development-ready land is also a major barrier to development. The cost of re-zoning land, creating parcel maps, developing infrastructure plans, and completing the preparation needed before a developer can get started designing neighborhoods can render a project infeasible before it is even begun. Additionally, the lack of a clear development process means that this stage of pre-development can be so time and resources intensive that it is perceived as impossible to navigate, and that that perception can carry over to lots or properties that are more development ready. The result is a perceived cost and risk that prevents qualified housing developers from exploring development opportunities in Page.

The City has already begun to address this barrier by updating its Zoning Ordinance, however, developing a clear development process, including the documentation and timelines necessary to mitigate unnecessary development risk, is very time and resources intensive.

### *Cost and Availability of Land and Construction*

Raw land costs in Page are relatively affordable. A review was completed of residential lot real estate listings available in June 2018 for 29 vacant residential lots for sale or recently sold in the city. All of the lots were located in Page and had access to public utilities. Of that sample, lots were listed at a median \$4.70 per square foot. For comparison, similarly sized residential lots available in Phoenix had a median square foot price closer to \$7.80. While Page's remote location raises construction costs, actual residential land costs should not be a barrier to development. The city also has a small supply of shovel-ready residential lots, many of which have been on the market for more than a year. Neither cost nor supply of residential land should be a major barrier in Page.

Construction costs are those incurred while actually constructing a dwelling unit. As with other land development costs, construction costs vary. Important determinants of construction costs include the amenities built into the unit, materials used, labor rates, and the difficulty of building on the site. To help determine whether building costs are a significant barrier to development, a comparison was made of two housing construction cost resources that calculate the total estimated cost of building a new home (land costs not included). A calculation run on Building-cost.net and costtobuild.net in June 2018 for the Page region for an 1,800-square-foot stick-built residence with mid-range finishes, a 600-square-foot attached garage, and central heating and air resulted in an estimated cost of \$225,350 to \$229,200 (or about \$125 to \$127 per square foot). Standardized tract homes can generally be constructed at a lower cost per square foot than custom single-family residences. Custom construction costs could be a barrier to homeownership for some Page residents. Modern mid-range modular or manufactured homes, with architectural features and amenities similar to the stick-built units above, can cost between 10% and 20% less to build and install, according to modularhomeowners.com, and can range from \$100 to \$112 a square foot, which substantially lowers costs and may make the units affordable for more Page residents.

### *Unit Type Bias*

Page is saturated with mobile homes, many of which were likely originally intended to be temporary housing but have instead become permanent units. Many of these homes were built before there were state or federal building codes for mobile homes, and they have aged well past their intended life span. Most were built with low-cost aluminum and fiberglass shells, with aluminum single-pane windows, solid surface roofs, and fiberglass or vinyl skirting. Many of these older units also have aluminum wiring, limited or no insulation, and were constructed with building materials that were treated with formaldehyde or other toxic chemical preservatives. As mobile homes are often housing for lower-income households, and a substantial portion are rentals, many of these units suffer from deferred maintenance and have become severely dilapidated, are visually unappealing, and in some cases, pose health and safety risks. While most units are in mobile home parks, many mobile homes are located in other neighborhoods in Page, which has spread the problems associated with deferred maintenance and dilapidated units into much of the

## 5. Current and Future Housing Needs

city. Many of the residents and stakeholders interviewed used the terms “mobile home” and “manufactured housing” interchangeably, generally in reference to trailer homes. The sheer number and visibility of these old and dilapidated units fosters a perception that all manufactured housing (or housing that arrives on a chassis) is subpar, that it doesn’t age well, and that it is undesirable as a housing type.

While that perception is supported by the older mobile home units, it does not apply to the newer manufactured and modular housing. Much of the manufactured housing currently being produced is structurally comparable to high-end custom construction. The range of finishes and fixtures available matches stick-built housing, and the factory-built units almost universally have higher energy efficiency ratings, produce less building waste, and, when properly installed, can be impossible to differentiate from stick-built housing. Even modern efficiency units bear little resemblance to the aluminum and fiberglass trailers that most people think of when they hear the term “mobile home.” New manufactured units are more cost effective, energy efficient, and in many respects are a better fit for the climate in Page than other building types. A bias against new manufactured housing based on existing aged mobile home units suffering from prolonged deferred maintenance will be a barrier to addressing the city’s housing shortage.

### *Labor Mismatch*

During the outreach phase of this project, community members expressed the concern that a shortage of local labor was contributing to high building costs and was a barrier to new housing development. The concern was that labor imported from Flagstaff or St. George would come at a premium, and the additional construction cost made new housing financially infeasible. There is insufficient public data to confirm whether construction labor prices in Page are substantially higher than the rest of the state. Construction as an industry has been declining in Page, and there is undoubtedly a shortage of local skilled construction workers. A comparison was done of construction wages in the Flagstaff MSA and the Phoenix MSA, in the same way tourism industry jobs were compared, to ascertain if there was an indication that construction wages in the Flagstaff MSA, which includes Page, are significantly higher than Phoenix. The results of that analysis showed that construction wages in Flagstaff are the same or lower than wages in Phoenix by 2% to 35% in every comparable trade except cement masons and concrete finishers, which were 14% higher in Flagstaff.

Construction costs, including labor, are up nationwide, and that includes Page. However, no data definitively confirmed the perception that construction costs in Page were significantly higher than in Flagstaff or Phoenix. There is very likely a transportation price premium due to Page’s remote location. The Building-cost.net cost estimator uses a specific address to calculate costs and builds location into the total cost model. A single-unit project would need to be able to absorb additional costs due to the more remote location, and that might add a premium to the project cost that makes the project difficult for Page residents to afford. Spread across multiple units, though, the transportation premium becomes a much smaller and more manageable per-unit cost.

Another comment heard frequently during the outreach phase is that the available labor in Page doesn’t have any construction skills, which was used as another justification in support of imported labor. Interviews with residents and a review of the public data suggest there may be some contradictions in this perception as well. The local construction industry has been shrinking, and residents who used to work in that industry faced the same challenges as current NGS employees. They could leave to find work elsewhere, or they could stay in Page and pursue another line of work. Residents of Page generally expressed a deep connection with the area, particularly the Navajo, who often have extended family on the reservation. It is unlikely that all of the workers who were working in construction in Page prior to the contraction of the industry have left the area. It is more likely they have taken employment in other industries, probably in the tourism sector, as that is the sector that has seen the most growth. If the city were

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to experience a resurgence in construction jobs, it is reasonable to believe that some of these former workers would return to the trades.

Page is also home to a Coconino Community College (CCC) satellite campus. Interviews with CCC staff identified a construction trades education program that is offered at the satellite campus. This program could be leveraged with national and state apprentice programs to help train workers for the construction industry. Growth in the construction industry could also pose a reasonable alternative to relocation for NGS employees, many of whom likely have transferable skills and could thrive in the construction industry. Construction jobs also typically pay more than the service industry, and they offer significantly more opportunity for advancement or successful self-employment. Growth in the construction industry could also help to address the high unemployment in the city by offering an alternative to tourism industry work, and would help diversify the economy.

The labor pool in and around Page should not be a barrier to the construction or installation of new housing. Based on the data analysis and information collected during the outreach phase, there is enough latent labor potential in the city to support a thriving construction industry. The bigger challenge appears to be finding developers and builders with enough foresight, capital, and resourcefulness to make building in Page profitable. Mitigating for some of the other barriers mentioned, such as the state and local codes and housing type bias, could help reduce the risk of development in Page and could encourage builders to expand in the area. Incentives that reward hiring locals and forming partnerships with CCC and other trade apprentice programs would encourage builders to consider local labor and would reduce the transportation premium. Other means to attract developers could include subsidized predevelopment or construction loans that offer funds at a reduced rate. The City could offer modest price discounts on land in return for regulatory agreements that guaranteed affordable rents for lower income households or other affordability requirements, such as requiring one unit in ten to be affordable to lower-income households, to help reduce the initial development cost and attract builders to the area. Agreements would need to comply with the State of Arizona's gifting laws that require the public benefit (affordable rents) be commensurate with the subsidy (land cost discounts), however, there are development precedents across the state, and affordability restrictions can be recorded against property titles to protect long-term affordability. A City-owned land trust, where the cost of land is totally eliminated from the development cost, could also help attract builders. The trust would allow the City to retain ownership of (and financial interest in) the land while reducing the cost of development for builders and allowing for lower cost units. Streamlined entitlements for builders who hire locals or agree to participate in training programs could also incentivize development.

One of the biggest barriers observed during the community outreach phase is residents' perception of Page. There are several serious challenges facing the community, like the lack of senior housing, the aging housing stock, the loss of the NGS jobs, the lower wages available though the expanding tourism industry, the growth in vacation home rentals, and the other issues discussed in this study. However, 79.1% of residents who took the community survey saw themselves living in Page in 5 years, and 63.1% saw themselves still in Page in 10 years. That is a very high retention rate for any community, let alone a remote community with limited employment opportunities and severe housing problems. The high rate of preferred retention in the face of community challenges means that residents are vested in the community, and the high survey participation rate as well as the overall participation in the community outreach process indicates that residents are interested in the future improvement of their city.

Comments in the community survey indicated a perception that Page is too tourist oriented and that, as vacation home rentals expand into different neighborhoods, there is less of a place for residents. Yet interviews with tourism industry employers and City staff, as well as on-the-ground observation, indicated a shortage of the retail and entertainment subsectors that usually support tourist-centric economies. Local self-perceptions, like the perceived

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shortage of labor, the perceived prohibitive development costs, and the perceived lack of economic opportunity outside the tourism sector, were interesting in the face of a community rich in real estate, with a large latent labor pool, and an established need for non-tourism services, like construction, transportation, bulky waste management, and recycling. In most respects, Page has all the ingredients a community needs to be successful and thrive, so the stagnant housing production and the loss of economic diversity through contracting industries is difficult to explain from a data-oriented approach. Part of the solution may be incentivizing outside investors or developers to invest in Page. But another part of the solution will also need to come from Page locals, and what that solution looks like will depend on how vested the community is in its own success.

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# Chapter 6 - Recommendations

The recommendations in this section are based on the findings from the data analysis and community input. Recommendations cover three categories: recommendations for how to address challenges facing the existing housing stock, recommendations to help address current and foreseeable economic challenges, and recommendations that identify short-term or intermediate actions that the City can take to help address acute problems that cannot wait for the longer-term planning process. These recommendations also identify easy-to-implement actions that the City can take to help improve housing and neighborhood conditions in some of the most challenged areas.

These recommendations are intended as potential solutions to some of Page's immediate housing problems. None of these recommendations are "silver bullets," and most of the city's housing issues will require multiple approaches to effectively solve. This means that none of the recommendations below need to be (or should be) scaled as the one solution to any of the city's housing challenges. Instead they should be proposed as modest pilot projects or multiphased solutions. This approach will reduce the externalities inherent in some of the recommended solutions and will allow the City to measure the success of different efforts to determine which provide the best return on investment.

The first and primary recommendation from this report is for the City to begin the process of developing a long-term housing plan. The plan should address the city's aging housing stock, including permanent and mobile homes, new development potential, rezoning of sites for residential use, the need to diversify housing types, and the long-term impacts of vacation home rentals.

A subsidiary recommendation to the above housing plan is the need for a long-term capital improvement plan. Of the 11,000 acres of vacant land in the city, only 66 acres (less than 1%) are zoned for residential development. Some of the existing vacant land available for residential development does not have access to public utilities, and utilities will be a major need in the future development areas. This is a significant barrier for new development. To address this issue, the City should develop a capital improvement plan in conjunction with the long-term housing plan.

## Economic and Land-Use Recommendations

The following economic recommendations are aimed to provide both short- and long-term land-use-based economic solutions to help alleviate the current and immediate future housing constraints facing Page.

### Economic Development

The City currently employs an economic development coordinator who has built strong relationships with many of the tourism industry employers in Page. These relationships have improved communication and are instrumental in making sure the City both supports and helps manage the economic growth in the tourism industry. However, Page's tourism industry is larger than many non-tourism-centric jurisdictions' entire economic base, and if the City is going to support economic diversification, additional resources will be necessary. This report recommends adding an economic development position that would focus on non-tourism-centric development and that would allow the City's current staff to really focus on growing the different sectors necessary for a thriving tourism market. This additional staff should have a strong background in business diversification and land development and would act as the City's liaison with housing developers in the state to help encourage investment by developers with the necessary resources to initiate and successfully complete larger housing development projects in Page.



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The City should also consider preparing a long-term economic development strategy that identifies what employment sectors have the most latent potential for growth and establishes a path to help fill economic gaps in the region. The strategy should include a list of industries missing in the city (like recycling and bulky waste management) and ideas that will support business development in those industries.

### Community Development

To respond to the considerable barrier posed by the lack of consistent development processes, the City should consider adding planning or community development staff, even if it is on a temporary or contract basis, to help address the current deficiencies in the development process, design a clear and streamlined development process that includes documentation, necessary government actions and approvals, and timelines necessary for different development types and phases. The City could leverage this process redesign effort with local community development and non-tourism economic development efforts to publicize how Page is looking to work with developers to help address housing needs and identify neighborhood investment opportunities. As development standards and processes become more consistent and streamlined, this barrier to development should diminish, with the result of more community oriented growth.

### Temporary Housing

The increase of NGS contractors during the shutdown of the Navajo Generation Station will be a strain on the city's existing housing stock. To address the need for additional housing, the development of a temporary recreational vehicle (RV) park would be beneficial. This RV park could be developed on City-owned property, with the City leasing the land to a private operator. The RV park should be open to contractors and campers and could be converted into a fee-based campground or a manufactured housing development after NGS decommissioning is complete.

### Motel Conversions

The city has seen an expansion in new hotel stock to help meet the demand for tourist accommodations in the growing tourism economy. Quite a few older motels in the city could potentially be completely or partial repurposed as temporary or seasonal housing. Units could be converted to single-room occupancy or dormitory-style housing and made available to seasonal workers, NGS decommissioning contractors, and CCC students. Property owner incentives to participate in conversions could include low-cost unit rehabilitation financing, property swaps, or other subsidies.

### Mobile Home Parks and Manufactured Housing Developments

Mobile homes offer an affordable alternative to rental and ownership housing in a tight housing market. Page currently has three mobile home parks that make up a large portion of the housing stock (35.6% of the total housing stock in the city). However, one of the parks is almost entirely lacking in basic infrastructure. Considering that the demand for housing in Page is already high, the lack of competition in this subsector of the housing market allows the parks to set mobile home space rents and unit rental prices without much consideration for market competitors. The Page housing conditions survey indicates that Rim View Trailer Village and Lake Powell Mobile Home Village both suffer from a high incidence of home issues. Many housing units in those parks need various repairs, ranging from minor cosmetic improvements to substantial rehabilitation, and in some cases, replacement. The City should continue to preserve the two larger existing mobile home parks to meet current housing needs. The City could offer unit rehabilitation programs to owners to maintain and improve the condition of these units. Additionally, the City should consider potential grant funding available for unit replacement programs.



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Furthermore, the development of an additional manufactured housing neighborhood on City-owned land would help address the need for additional affordable housing, both seasonally and in the long term, and would introduce more competition into the manufactured housing market. An influx of new manufactured units would incentivize reduced prices and improved maintenance of the existing units. The City can lease the land to a private operator at a reduced cost to reduce overhead, combined with affordability requirements that ensure units would be available to low-income households to meet the standards for public benefit, and with an extended lease (30 years or longer) to preserve longer term affordability. This arrangement would ensure affordability for the length of the lease and would allow the City to retain a long-term financial interest in the property. Agreements would need to be structured to meet the requirements of Arizona public benefit and the state Gift Clause.

### Subdivision and Sale of City-Owned Land

The City is in a unique position to encourage development due to the sheer quantity of publicly owned land. The subdivision and sale of City land could help encourage more residents to become landowners, increase the supply of land available for development, incentivize more incremental development, stabilize land costs, and add more variety in housing types. Careful phasing would be required to prevent crashing the land market with the availability of too much land or inflating land costs due to too little land. Subdivisions would need to be accompanied with capital improvement plans to support development, and they could include some of the development incentives discussed in Chapter 5 to encourage local labor participation.

### Community Land Trust

The City of Page should consider developing a community land trust to assist in providing more affordable housing. A trust of this type is accomplished by removing the cost of purchasing land from the total cost of developing homes. The program would offer an alternative to renting for households that have been priced out of the traditional housing market. The land is provided to the homeowner through a long term (such as 99-years) lease that allows the lessee to enjoy property rights similar to ownership. In addition, the price at which the house may be sold is restricted in exchange for the financial assistance with the initial purchase. Units developed under this program would be maintained as permanently affordable through the program. Another similar option to add more affordable housing would be the establishment of a local housing trust fund. Potential funding sources that might help address the need for subsidized housing are listed below. These programs would also need to be designed with Arizona state laws in mind, to show equity between the potential costs and the public benefit of increasing the stock of available affordable housing.

### State and County Funding Sources

The Arizona Department of Housing (ADOH) and Coconino County offer some housing programs. The funding sources and eligible housing activities are described below.

- Community Development Block Grant Program, available through Coconino County
  - Housing rehabilitation grant and loan programs (both mobile homes/manufactured housing and stick-built single-family homes).
  - First-time-Homebuyer programs, including down-payment assistance and mortgage buydown programs.
  - Housing placement services and housing assistance programs such as utility and deposit assistance.
- HOME PLUS Home Loan Program managed through ADOH

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- Down-payment and closing cost assistance for creditworthy homebuyers. All borrowers on the mortgage must meet the minimum credit scores reflected below as well as the new underlying first mortgage agency/GSE guidelines.
  - This program is only available in combination with a HOME PLUS mortgage.
  - Includes reduced mortgage insurance premiums on conventional (Fannie/Freddie) mortgages.
  - Eligible properties must be owner occupied and primary residences in Arizona.
  - Currently the borrower(s) annual income may not exceed \$99,170.
  - Currently the maximum purchase price under the program is \$396,680.
- Housing Assistance to People with AIDS (HOPWA): The State receives a small yearly HOPWA grant from the federal government. Funding is passed through to local governments or nonprofit organizations to provide direct assistance to eligible people.
- Low Income Housing Tax Credit Program (LIHTC)
  - This program funds the development of affordable rental housing.
  - Eligible projects must involve new construction, substantial rehabilitation, or acquisition and substantial rehabilitation.
  - Eligible projects are residential rental property where:
    - At least 20% or more of the residential units in the development are both rent restricted and occupied by individuals whose income is 50% or less of the area median gross income, or
    - At least 40% or more of the residential units in the development are both rent restricted and occupied by individuals whose income is 60% or less of the area median gross income.
  - The lower the income levels of the units, the more competitive the project will be.
- Private Activity Bonds and 501(C)(3) Bonds
  - For development of rental housing.
  - Private Activity Bonds
    - Bonds must be issued by a local urban Industrial Development Authority.
    - Low-income housing projects financed with tax-exempt bonds are eligible for 4% tax credits if they meet minimum requirements and adhere to regulations.
    - Regulations are contained in the Qualified Allocation Plan.
  - 501(c)(3) Bonds
    - Private activity bonds that finance a facility owned and used by a 501(c)(3) organization.
    - They are not eligible for low-income tax credits.
- State Housing Fund Program
  - Funded through a combination of federal HOME funds and state Housing Trust Funds money.
  - Affordable permanent and transitional rental housing units are eligible.
  - Notices of Funding Availability (NOFAs) are released for this program.
  - Funding decisions are made based on competitive funding criteria.

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- Financing is provided as a loan in exchange for long-term affordability restrictions.

### Housing Recommendations

The following section discusses housing policy and program recommendations to rehabilitate the existing housing stock and develop additional housing in the future.

### Vacation Home Rental Monitoring

The State of Arizona has approved legislation that restricts communities from regulating vacation home rentals in residential neighborhoods. Further legal opinions have restricted jurisdictions from requiring licensing or certifications for homeowners to use their property as a vacation home rental. While this approach benefits property owners and the online platforms like VRBO and AirBnB that support the burgeoning vacation home rental industry, it prevents jurisdictions from developing ordinances or controls to address negative neighborhood impacts. The vacation rental inventory in Page is still a small percentage of the total housing stock, but it is growing, and as the tourism industry in the city matures, it is reasonable to expect that the number of vacation homes will grow. Without the legal ability to regulate vacation home rentals, the City will have very limited responses to the problems that are adversely impacting tourist towns across the nation.

The current best practice is to monitor vacation home rentals for health and safety code compliance and to make sure units have local contacts in case of emergency. While the popular vacation rental platforms are generally cooperative in terms of collecting transit occupancy tax for jurisdictions, there is a black market of property owners who rent their units without collecting tax or providing required emergency contact information. Vacation home rental compliance agencies, like Host Compliance, can help monitor the full vacation home rental market, identifying properties that are evading taxes or local monitoring, and can help the City stay compliant with existing state law. These agencies can also help the City to partner with other tourism-impacted jurisdictions in Arizona to make sure state law also addresses the needs of tourism-impacted communities.

### Housing Rehabilitation Programs

The housing stock in Page on average is older than that in other cities in Arizona. This aged housing stock, along with the original type of development and historically inconsistent regulation in Page, has resulted in dilapidated housing conditions and health and safety risks to housing occupants—owners and renters alike. The following programs can help address some of the deferred maintenance issues facing the City:

- **Improvements Grant Program:** One program the City could initiate is an Improvements Grant Program. The program could offer small \$5,000–\$10,000 grants for homeowners completing health and safety corrections or correcting building code violations.
- **Matching Loan Program:** The City could implement a matching fund rehabilitation loan program where one-third of the funds would be the owner's responsibility and the City would match the funds with an additional two-thirds at a low interest rate and/or with a deferred payment. The program should match up to the federal limit for loan size to retain flexibility.
- **State Funds:** The City should apply for available state funds to address the need for housing rehabilitation and infrastructure improvements. The Arizona Department of Housing funds local governmental entities, housing developers, social service agencies, tribal entities, public housing agencies, and other entities providing housing and housing-related services.
- **Rental Housing Inspection Program:** While the above programs target households that own their housing unit, a rental housing inspection program could target rental housing units to ensure units meet health and

## 6. Recommendations

safety code minimums. The program should include penalties for landlords who do not maintain their properties or who do not correct code violations in a timely manner. Inspections could be completed at a tenant's request or could be part of a citywide effort to improve rental housing quality.

### Accessory Dwelling Unit (ADU) Ordinance

ADUs are an effective way to increase density in single-family zones without changing land use or zoning regulations. ADUs are often affordable to lower-income households and allow homeowners to generate income on the rental of the units. These units can also provide additional space for extended family members and decrease overcrowding. Currently, the City's Zoning Ordinance does not allow ADUs, with the exception of one not-rental guest house in the Residential Estate Districts. The City is currently in the process of developing an ADU ordinance in conjunction with the Zoning Ordinance update to allow ADUs in One-Family Residential Districts on lots over 8,000 square feet. To encourage the development of ADUs, the City should do the following:

- Allow ADUs in One-Family Residential Districts without a Conditional Use Permit.
- Provide pre-approval for ADU plans. Pre-approval could include a selection of fully engineered and permit-ready plans available at low or no cost for property owners interested in building an ADU.
- Develop a handout that outlines the ADU approval process from planning to final building permit. This handout should include rental rates and expected costs for permits and construction.
- Waive entitlement or building permit fees for ADUs where the property owner commits to making the unit available at an affordable price for a set period of time.

### Increase Density of One-Family Residential Districts

Page's single-family neighborhoods offer an opportunity to increase density to allow two or more units on one lot. Increasing density in the One-Family Residential Districts will allow owners to build second units or subdivide their homes into multiple dwellings. The development of a range of unit types, from duplexes to quadplexes and low-rise apartments, has been documented as a natural progression of single-family neighborhoods, adds housing diversity, and supports stable mixed-income communities. Increasing density in single-family zones takes advantage of existing utilities by maximizing capacity, reduces environmental impacts, retains the city's compact development character, promotes equality, and allows for a range of housing types that support residents aging in place. The City should consider the following actions:

- Increase the maximum density in the One-Family Residential Districts (or consider setting density floors instead of ceilings and allowing the market to guide neighborhood density).
- Allow for division of single-family homes up to a quadplex (or duplex or triplex with one ADU) with an administrative approval.
- Allow for the development of low-rise apartments of two stories or less on appropriately sized single-family parcels with City Council approval.
- Decrease parking requirements in neighborhoods that have ample street parking and allow tandem parking for a single-family home when it is being divided.

## 6. Recommendations

### Opportunities for Intermediate Action

The following include opportunities for immediate action to address current housing issues.

#### Large Debris Removal

Page currently does not have a proper disposal facility for large debris. The NGS periodically holds trash removal events. However, with the imminent closure of the station, the City should consider initiating a bulk pickup program to alleviate debris in residential neighborhoods and allow residents to dispose of broken-down boats, furniture, appliances, cars, and other large debris.

#### Hotel On-Site Housing Requirements

The impact of increased tourism is driving the growth of short-term rentals and the demand for more service industry employees in Page. One way to offset the influx of tourism sector workers is to require hotels to provide housing for a portion of their staff. This could be completed by converting a small number of the hotel rooms into dormitories or single-room occupancy dwellings for seasonal employees. This approach could provide short- to mid-term housing relief for workers as well as provide a solution to future seasonal housing needs.

#### Education on Mobile Homes

The City can educate elected officials on the current state of mobile homes in the community, including age and cost of health and safety repairs versus replacement, as well as provide information on new manufactured housing products, appearance, costs, and benefits. The goal of this education would be to identify short-term priority policies to help address the highest need for mobile home rehabilitation and replacement to address critical health and safety risks.

# Community Outreach Summary

## Community Outreach Overview

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Community and stakeholder data is critical in clarifying perceptions as well as revealing opportunities for future policy recommendations. The community outreach for this plan included a community workshop, seven in-person focus group meetings, and one online survey.

### Community Workshop

The workshop was in the format of an open house with four “stations” where attendees could ask questions and provide input on specific aspects of the study:

- Station 1 – Housing Opportunities and Constraints: Participants were asked to identify what housing opportunities are available in Page and what are the major constraints.
- Station 2 – Housing Types: Participants were asked to identify what type of housing they currently live in and what type of housing they would prefer to live in.
- Station 3 – Tourism Impacts on Housing: Participants were asked if they agree or disagree with both positive effects and negative effects of the tourism industry on housing in Page.
- Station 4 – Other comments: Participants were asked to provide any additional comments on housing in Page.

A total of 36 attendees signed in. Since the sign-in sheet was optional and due to the drop-in, open house format, it is possible that actual attendance was greater than 36.

### Major Themes

#### *Seasonal Housing*

The most common issue raised by attendees concerned the need for housing that can accommodate the seasonal nature of the City’s economy. The prevalence of the tourism industry means that many local employers—including the National Park Service, Antelope Point Marina, adventure/tour companies, and others—rely on a larger summertime workforce of students and young adults. Some workshop attendees recommended forming partnerships that could accommodate these workers, with one commenter noting that the National Park Service is actively seeking to lease housing for its seasonal employees from local landlords. Another comment suggested that the City seek funding to build additional seasonal housing.

#### *Housing Affordability*

At each station, participants expressed an interest in additional housing in the City, particularly more affordable options. Five comments noted a gap between the cost of housing and what would be affordable based on local income, with few options available for minimum-wage earners. Participants noted that as the boom in local tourism raises property values, it becomes increasingly difficult for the workforce that supports the industry to live within the City.



## Appendix 1 – Community Outreach Summary

Another common theme was the lack of housing for teachers, nurses, and other professionals essential to the community. One comment noted that the lack of affordable options makes it difficult for employers to recruit and retain workers.

Responses at Station 2 indicate there is an unmet demand for affordable homes. None of the 27 attendees who identified their current housing situation indicated that they live in affordable housing. But when asked what type of housing they would prefer to live in, 22 percent of the 32 respondents selected affordable housing.

### *Effects of Tourism*

Workshop participants had mixed views of tourism, believing that the industry has both positive and negative impacts on the City. Based on responses at Station 3, residents believe that tourism increases property values, attracts businesses (but not new, permanent residents), and increase City revenues; however, they also believe that it limits housing availability and decreases the supply of long-term, affordable housing. Respondents were split on whether tourism “makes Page a great place to live” or strains City resources.

The growing number of vacation home rentals was of concern to some attendees. One commenter shared a personal anecdote of three residents who were being evicted from long-term rentals so that the homes could be converted to vacation rentals. Three comments suggested the city explore ways to limit vacation home rentals through caps or restrictions, while five comments viewed an increase in affordable housing as a better solution. Some of these comments flatly rejected the entire premise of blaming tourism for housing issues in the City and suggested that increasing housing affordability and embracing tourism should not be viewed as mutually exclusive choices.

### *Types of Housing*

Markers placed on the posters at Station 2 indicated that 16 of the 25 respondents currently live in single-family homes, while nine currently live in mobile homes; no other types of housing were represented. However, when considering what type of housing they would prefer, two respondents chose townhouses and one chose condo/apartment; none chose mobile homes as their preferred housing type.

Comments also indicated some interest in making more types of housing available in the City. Two notes lamented the lack of townhouses that could serve as less-expensive alternatives to single-family homes.

## Focus Groups

For each focus group a set of questions was setup beforehand to facilitate discussion. The purpose of these discussions was to gain an understanding of the general issues of housing in Page and how short-term rentals, and tourism in Page were impacting certain sections of the community.

The following are the questions asked for all focus groups. Not all focus groups were asked the same questions depending on their relevance. Additionally, notes were gathered on general conversation that resulted from the questions.

- Opportunities and concerns: What the 3 top opportunities do you see for the future of housing in Page? What are your 3 top concerns for the future of housing in Page?

## Appendix 1 – Community Outreach Summary

- Housing Preferences: What types of housing types do you/your clients prefer? Is there adequate rental housing in the community? Are there opportunities for home ownership? Is there assessable rental units for seniors and persons with disabilities?
- Tourism: What effects have you seen on housing because of the growing tourism industry/short term rentals? From your perspective, what are some of the most positive impacts? From your perspective, what are some of the most negative impacts? What do you see as the top 3 priorities for the City in addressing negative impacts (if any)?
- Temporary housing: How many of you operate temporary housing? Is there adequate temporary housing in the community?
- Housing barriers/needs: What are the biggest barriers to finding affordable, decent housing? Are there specific unmet housing needs in the community?
- Housing Conditions: How do you feel about the condition of housing in Page? What opportunities do you see to improve housing in the future?
- Future of Housing: Where do you see yourself living in 5 years? 10 years?

### *Major Themes*

There is widespread acknowledgment that the City has a housing supply problem and is lacking in certain types of housing, including multi-unit developments such as duplexes and townhouses (sometimes referred to as the “missing middle”), apartments, condos, and housing for first-time owners, students, and seasonal and temporary workers. Overall, the City’s housing stock is perceived as old and in poor condition. Mobile and manufactured homes are viewed negatively and do not meet current building standards. Overcrowding is common. Supply and demand don’t seem to be working, one participant noted.

These issues are creating a drag on the local economy and employment, making it difficult to attract and retain workers. City employees who participated in the sessions related personal experiences about their inability to find suitable housing for months after they were hired. The gap between housing costs and what local service workers can afford to pay is preventing them from living in the City.

Participants identified vacation home rentals as a factor that is exacerbating the City’s challenges. Cheaper rental options are being converted to serve vacationers. This includes income-qualified affordable units as tax credits expire, and homes of seasonal residents that could be rented to temporary employees. Several participants said the City needs to actively address this issue, either through its General Plan; a cap on vacation home rentals; tracking, licensing, and fees; or simply building more homes to meet demand.

Another contributing factor is high construction costs. One participant said the cost of materials has increased 25 percent. There is also a lack of investors.

The City’s status as the primary landowner creates unique opportunities but also challenges. Land is not a prohibitive cost, but buying city-owned land can be a lengthy, complicated process. Another regulatory barrier identified was zoning, which participants said may need an update that incentivizes housing and encourages density.

## Appendix 1 – Community Outreach Summary

Other ideas generated in the sessions include taxing vacant land, a mobile home rehab program, having employers work with the City to directly provide more housing, and making more City-owned land available for housing development.

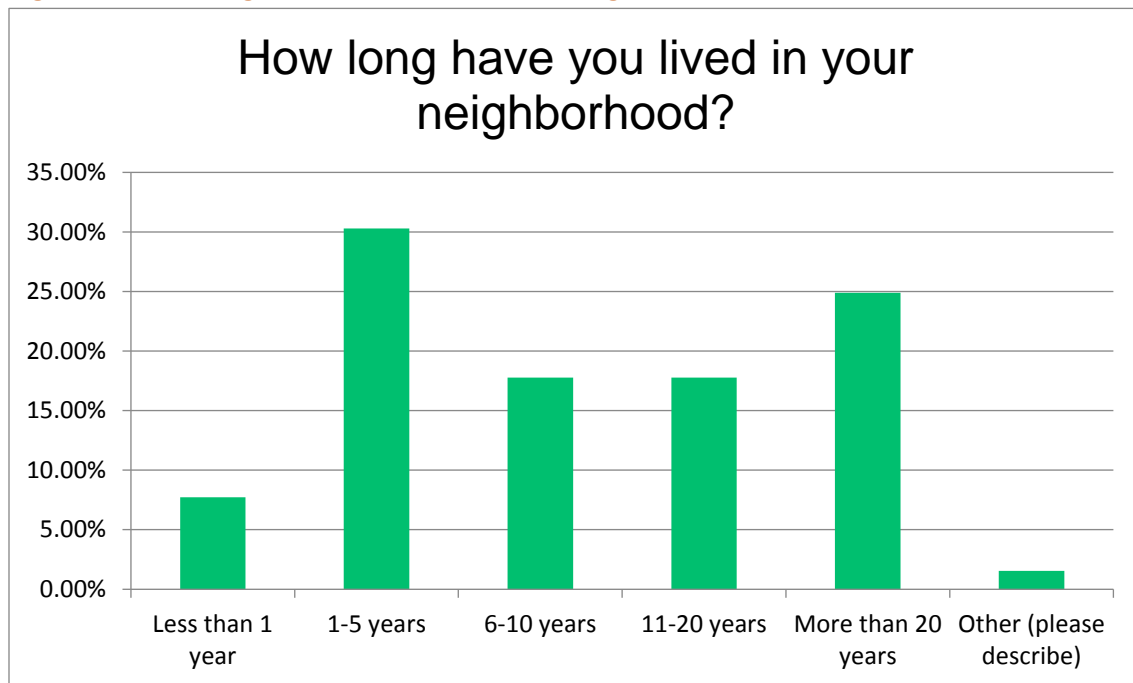
### Online Survey

An online survey was made available as part of the community outreach effort. A total of 651 responses were received between March 21 and May 2, 2018.

#### Profile of Survey Participants

Most survey participants reported that they live and work in Page. Full-time residents accounted for 86 percent of respondents, and another 4 percent said they live in the City part of the time. Figure 1 shows that respondents were fairly evenly split between new residents and longtime residents; 43 percent have lived in their neighborhoods for more than 10 years.

Figure 1: How Long Have You Lived in Your Neighborhood?



Overall, 88 percent of respondents said they work in Page, with most of the remainder self-identifying as “retired” or a variation. Three-quarters reported a commute of 10 minutes or less. Only 6 percent reported living outside Page and working in the City.

Among those who specified what kind of work they do, the top categories were government/public administration (24 percent); education (15 percent); health care (14 percent); other professional, scientific, technical (12 percent); retired (12 percent); and recreation or leisure services (11 percent).

## Appendix 1 – Community Outreach Summary

Respondents represented a range of ages and household incomes, as shown in Figure 2 and Figure 3.

Figure 2: What is Your Age?

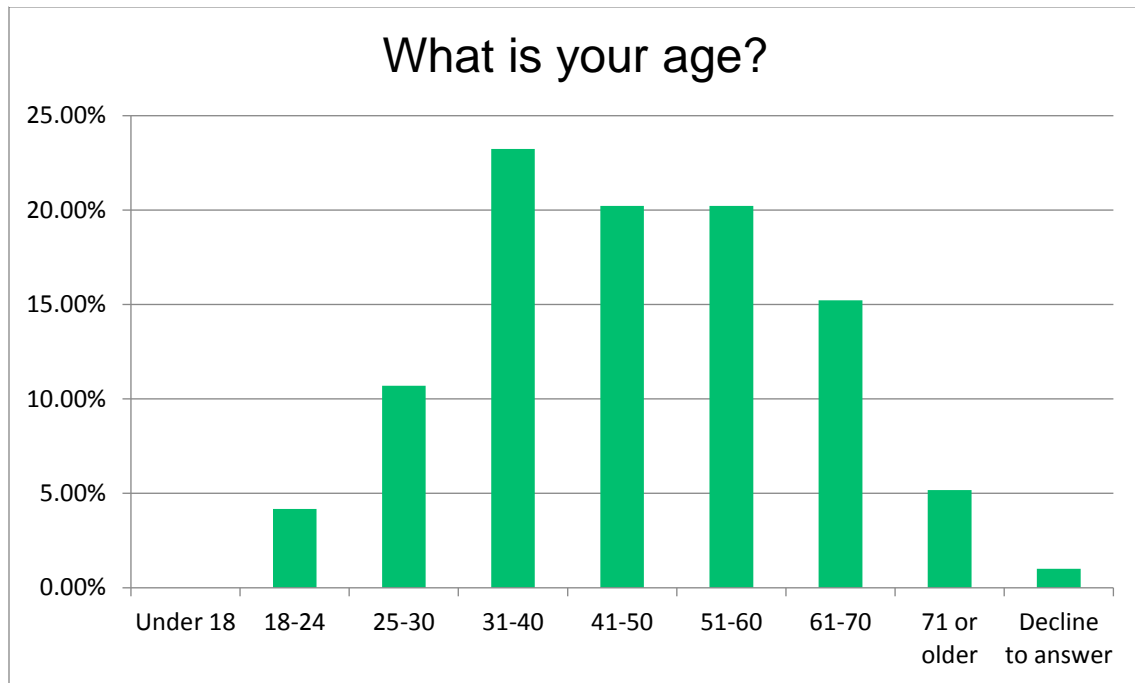
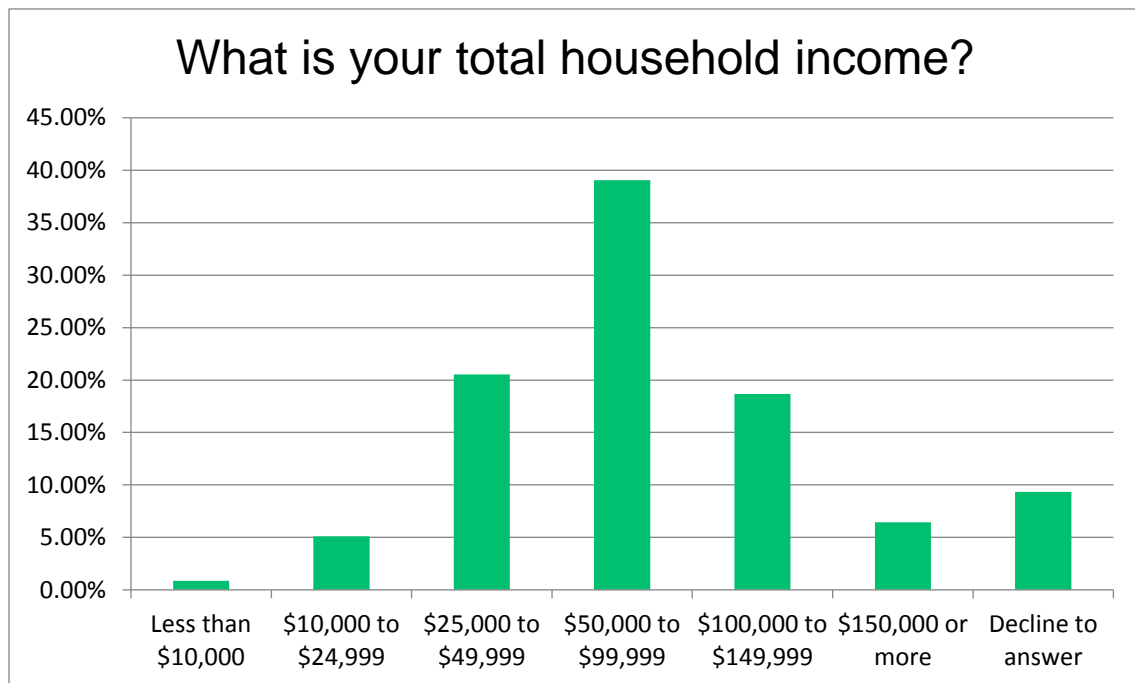


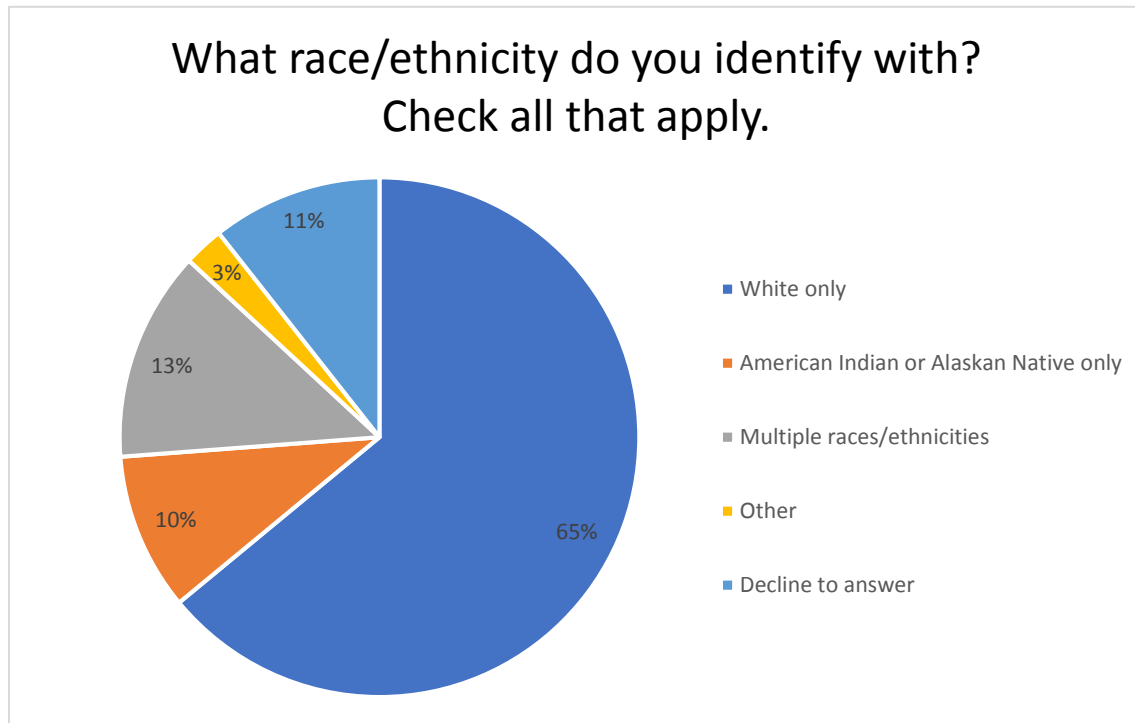
Figure 3: What is Your Total Household Income?



## Appendix 1 – Community Outreach Summary

The survey format allowed participants to make multiple selections for race or ethnicity. Overall, 75 percent identified as white, with 65 percent selecting white only and 10 percent also selecting another race/ethnicity. The next largest racial category, American Indian or Alaska Native, was associated with 17 percent of respondents, with 10 percent selecting that only and 7 percent also selecting another race/ethnicity. A total of 6 percent identified as Hispanic or Latino of any race. Another 11 percent declined to answer. Figure 4 shows the racial composition of the survey population.

Figure 4: What Race/Ethnicity Do You Identify With?



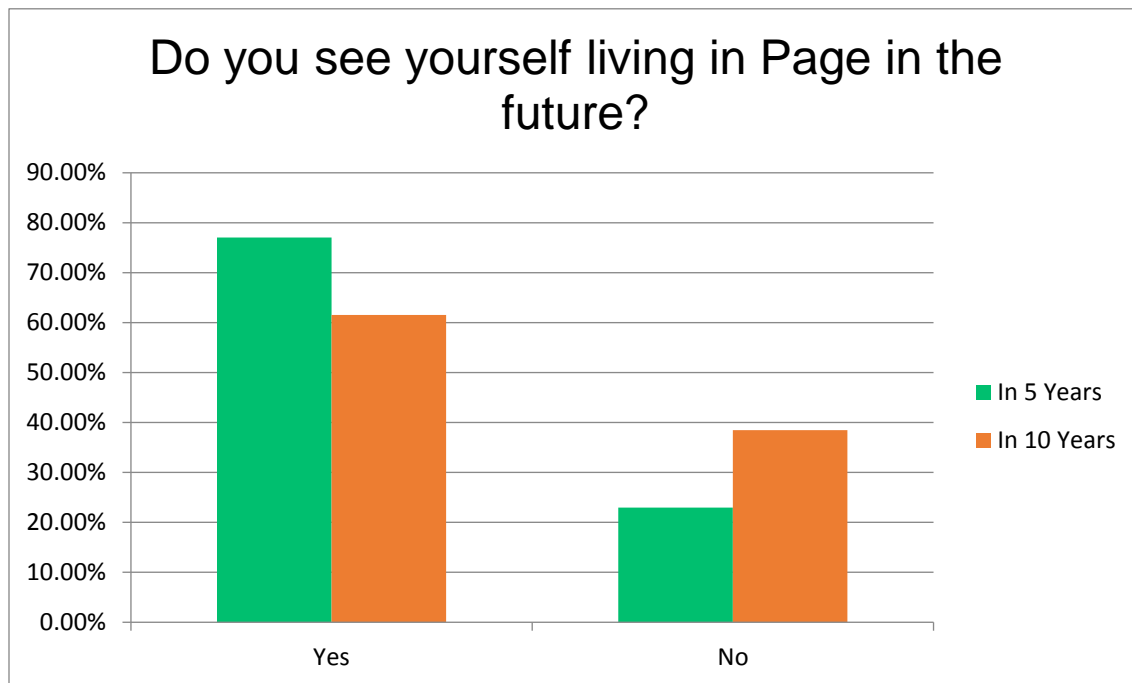
Almost 72 percent of those who took the survey said they own their residence, while 20 percent said they rent. Single-family, detached homes accounted for 56 percent of housing, and manufactured or mobile homes made up another 30 percent.

Only 11 percent of survey respondents said they live on their own, while 39 percent are members of two-person households. Half are members of households with at least three people. About 43 percent have a child younger than 18 living in the home.

A majority of respondents anticipated they will be living in Page in the near future, with 77 percent of respondents from all neighborhoods saying they see themselves living in the City five years from now (see Figure 5). This was true of both current residents and, to a lesser degree, those who live outside Page.

Slightly fewer respondents, but still a majority, anticipated that they will be living in Page in the longer term, with 62 percent saying they see themselves living in the City ten years from now (see Figure 5).

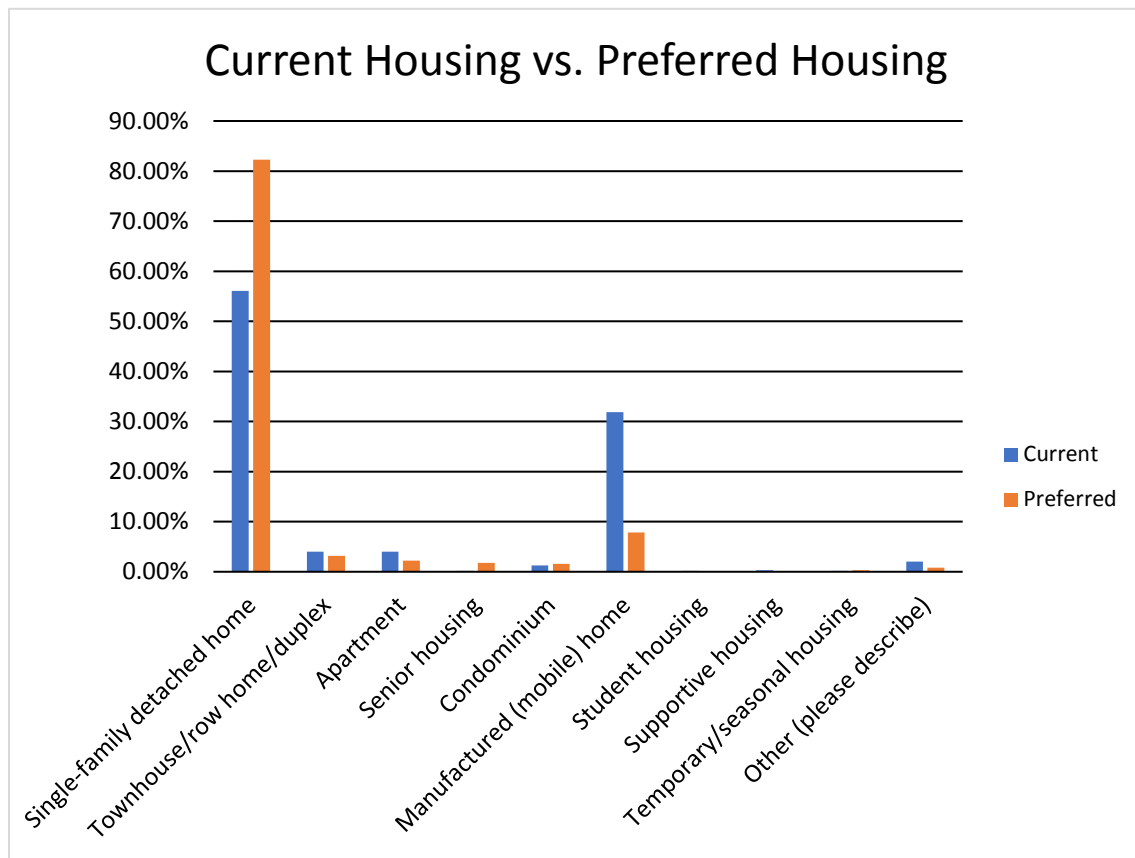
Figure 5: Do You See Yourself Living in Page in 5 Years? Do You See Yourself Living in Page in 10 Years?



Residents overwhelmingly want to live in single-family, detached homes compared to other types of housing. Of the 286 respondents who currently live in something other than a single-family, detached home, 64 percent said they would prefer a single-family home. Of the 365 respondents who do currently live in a single-family, detached home, only 7 percent said they would prefer a different type of housing. Figure 6 compares the type of housing respondents currently live in to the type they would prefer to live in. As with the Community Workshop results, the survey showed that manufactured or mobile homes are not the preferred type of housing for most people who live in one.

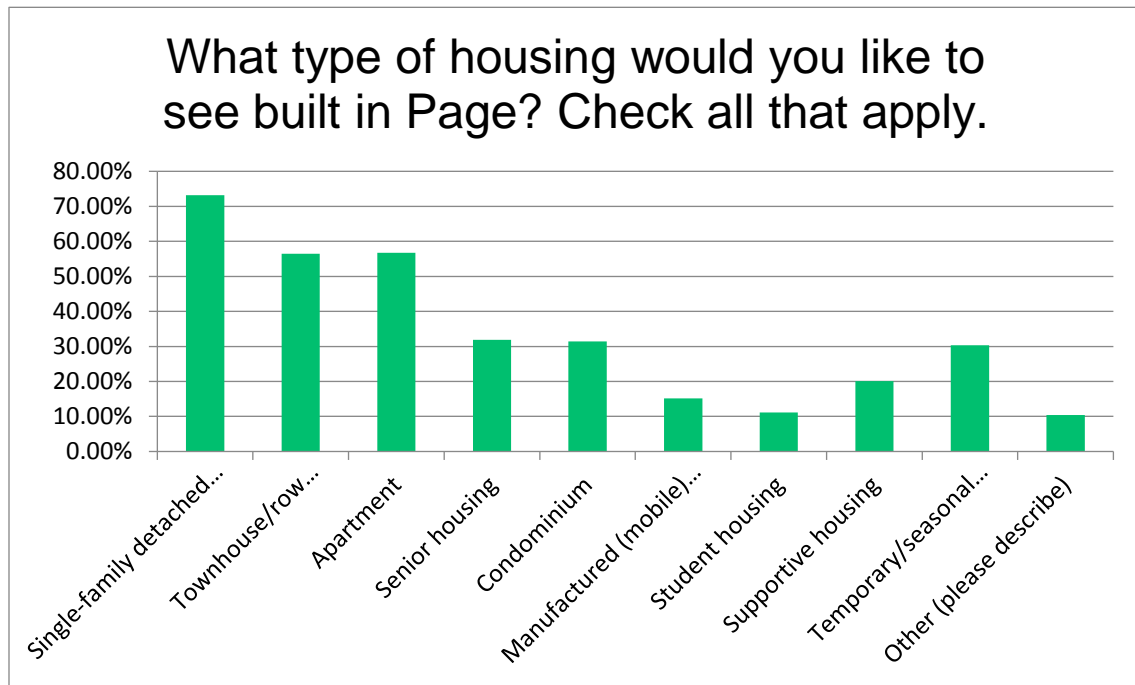


Figure 6: What Type of Housing Do You Currently Live In? vs. What Type of Housing Would You Prefer to Live In?



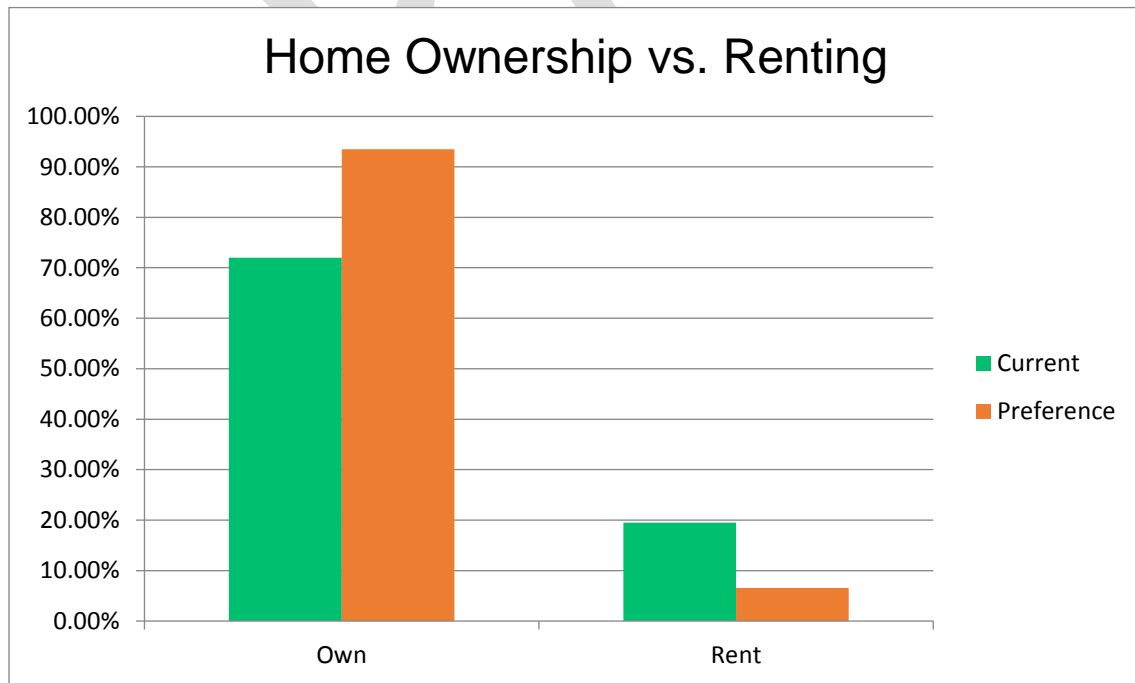
Survey respondents may prefer single-family homes, but like the Community Workshop participants, they would like to see a greater variety of housing constructed. Figure 7 shows that more than half said they would like to see townhouses/row homes/duplexes and apartments built in addition to more single-family homes.

Figure 7: What Type of Housing Would You Like to See Built in Page?



More than 7 in 10 survey participants already own their home, but even more would like to. Figure 8 shows that 93 percent would prefer to own their residence, while only 7 percent said they would prefer to rent.

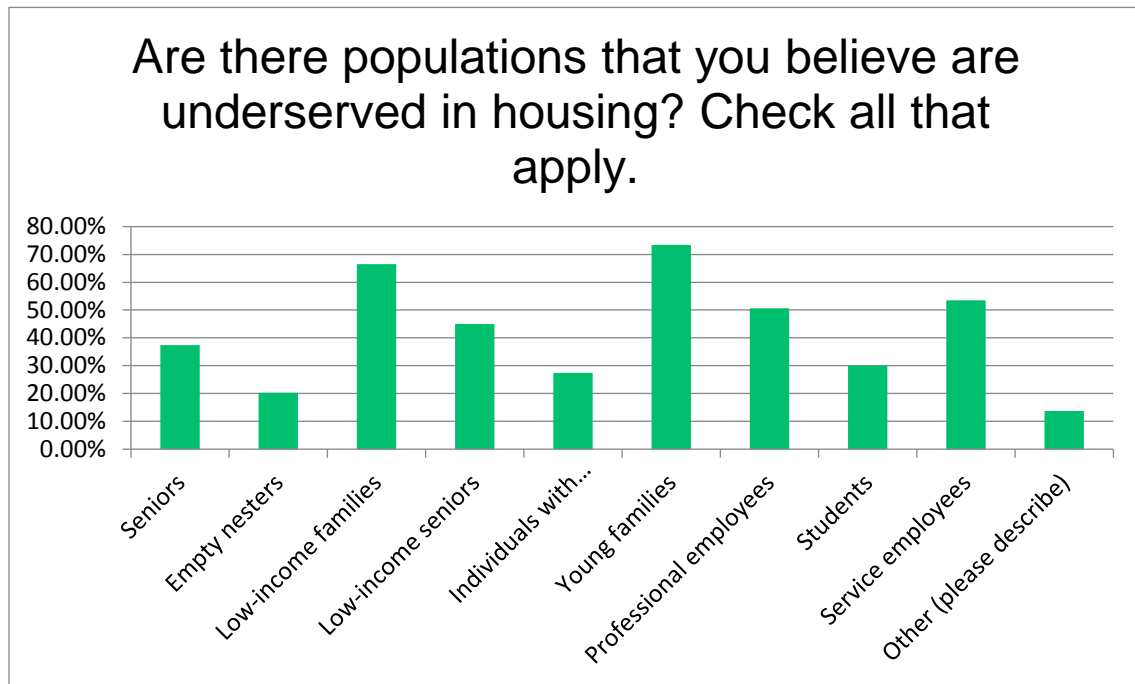
Figure 8: Do You Currently Own or Rent Your Residence? In the Future, Would You Prefer to Own or Rent Your Residence?



## Appendix 1 – Community Outreach Summary

As shown in Figure 9, more than half of respondents agreed that housing in Page does not currently meet the needs of young families, low-income families, service employees, and professional employees.

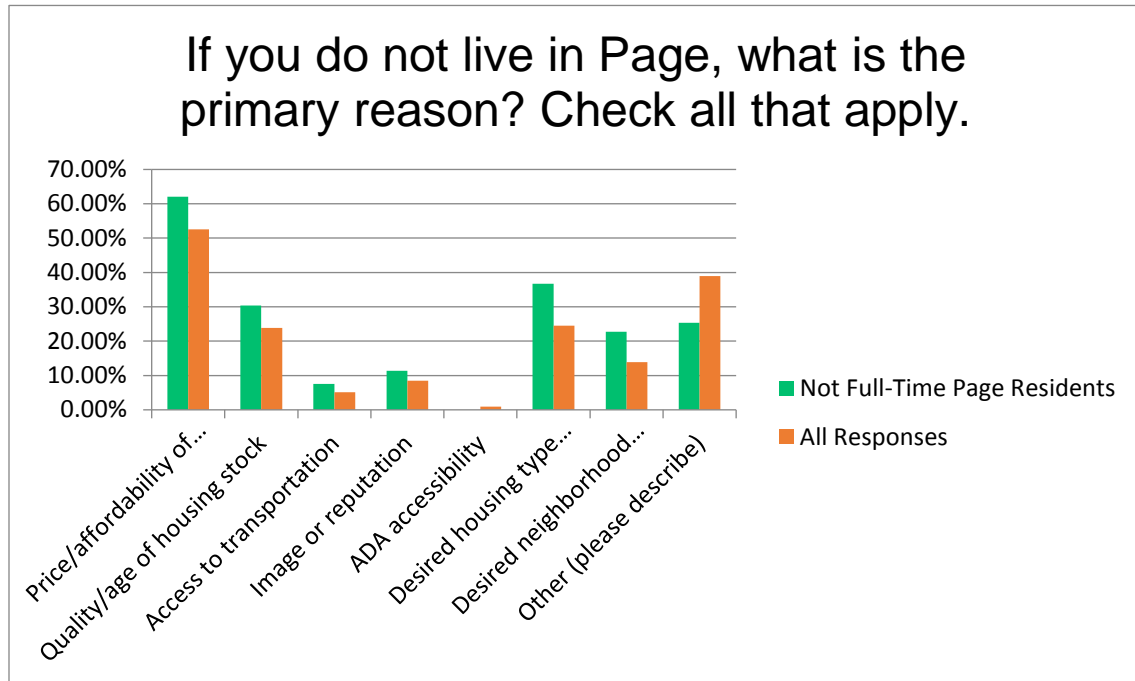
Figure 9: Are There Population That You Believe Are Underserved in Housing?



Housing costs were seen as the most important factor preventing people from moving to Page.

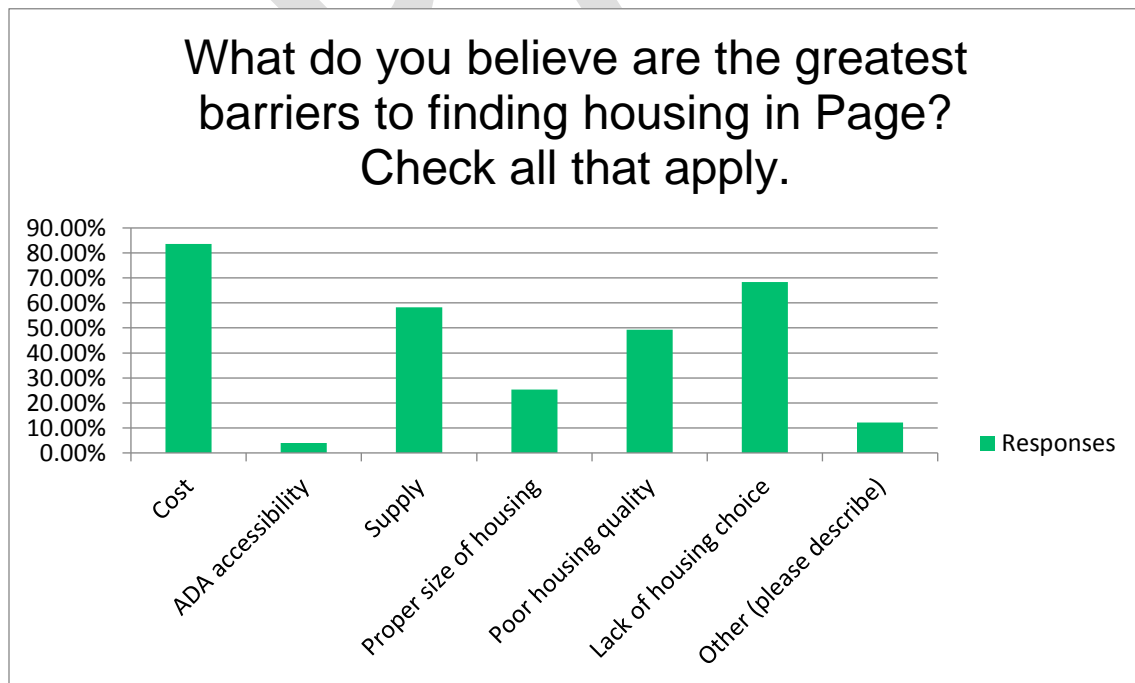
A total of 331 people responded to this question, but among them are 251 people who reported being full-time residents of Page. (Many of them selected the “other” option and wrote in that they live in the City.) Of the 90 survey respondents who do not live in Page full-time, 11 skipped this question. Of those that responded, 62 percent identified “price/affordability of housing” as a primary reason (see Figure 10). The next most common reason, “desired type of housing unavailable,” was selected by 37 percent.

Figure 10: If You Do Not Live in Page, what is the Primary Reason?



Responses to this question mirrored those of Question 13. Nearly 84 percent of respondents identified “cost” is the greatest barrier, with “lack of housing choice” and “supply” as the next most frequently selected choices (see Figure 11).

Figure 11: What Do You Believe Are the Greatest Barriers to Finding Housing in Page?

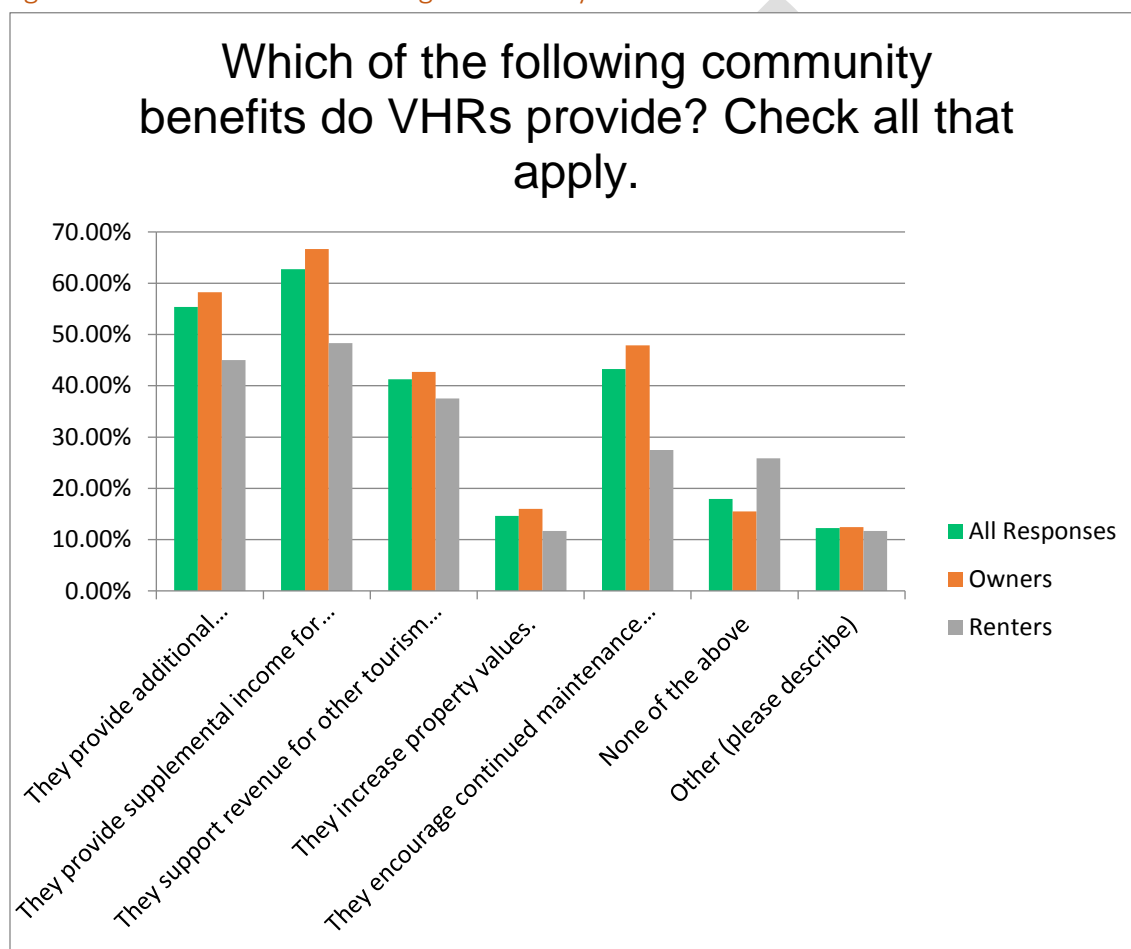


## Appendix 1 – Community Outreach Summary

The most commonly identified benefit of vacation home rentals was that “they provide supplemental income for property owners in an expensive housing market,” which was selected by 63 percent (see Figure 12). A majority also agreed that VHRs “provide additional accommodations, which is good for tourism.”

Renters were less likely to have a positive view of VHRs compared to people who own their residence. For example, 48 percent of property owners believed VHRs “encourage continued maintenance and upkeep of properties,” but only 28 percent of renters believed this. Renters were 1.7 times as likely to select “none of the above” when asked about benefits.

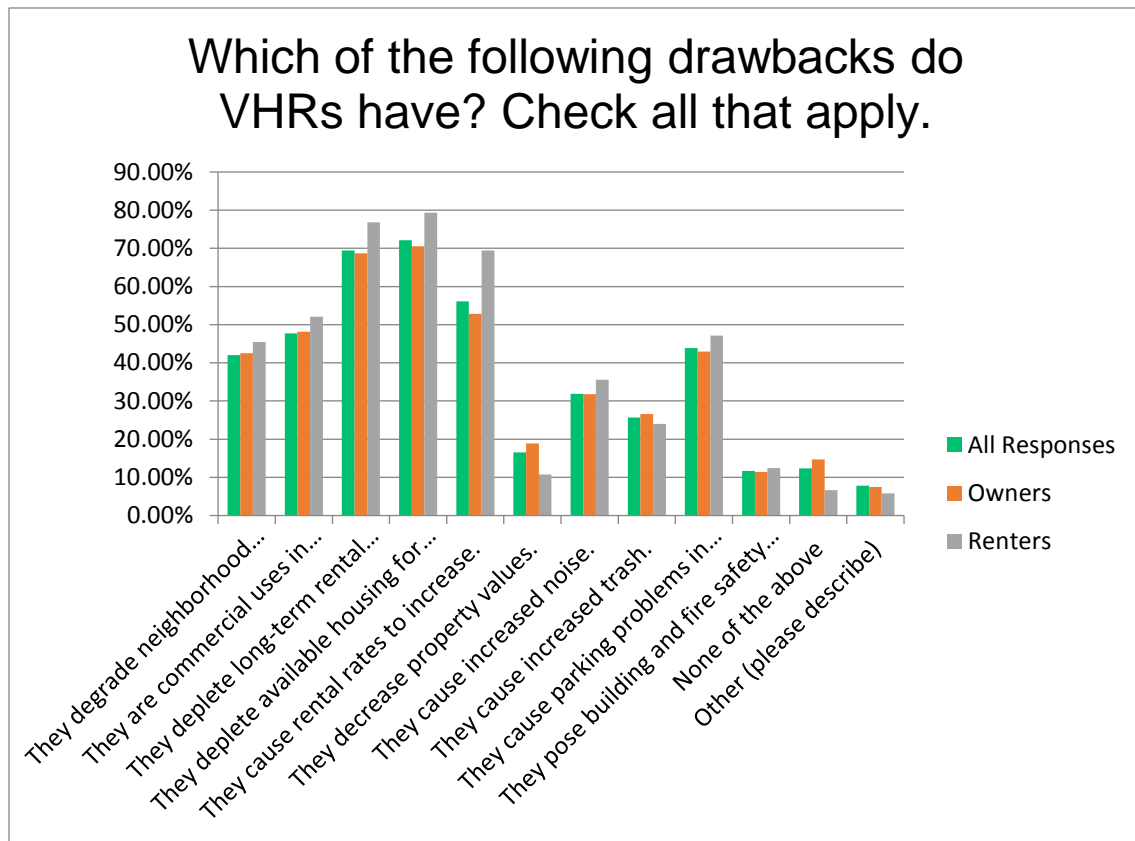
Figure 12: Which of the Following Community Benefits Do VHRs Provide?



The most commonly identified drawback of vacation home rentals was that “they deplete available housing for permanent residents to purchase to live in,” which was selected by 72 percent (see Figure 13). A majority also agreed that VHRs “deplete long-term rental housing opportunities” and “cause rental rates to increase.”

Differences between renters and owners were not as pronounced as on Question 15, with one exception: 69 percent of renters believed VHRs cause rental rates to increase, while only 53 percent of owners believed this.

Figure 13: Which of the Following Drawbacks do VHRs Have?



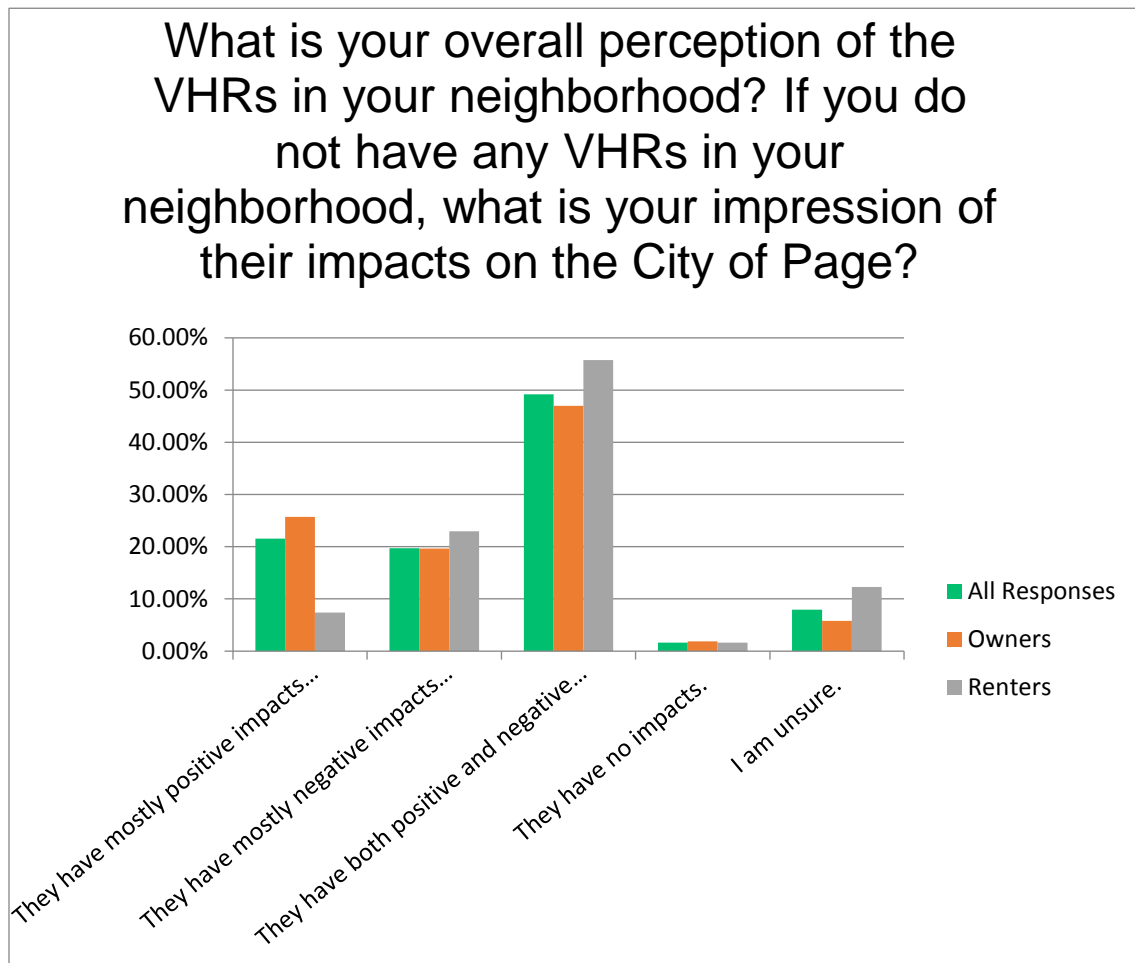
Question 17: What is Your Overall Perception of the VHRs in Your Neighborhood? If You Do Not Have Any VHRs in Your Neighborhood, What is Your Impression of Their Impacts on the City of Page?

Mirroring the results of the Community Workshop, VHRs were seen as having both positive and negative effects. As shown in Figure 14, 49 percent of survey respondents chose this option. Those who thought VHRs mostly have a positive impact only slightly outnumbered those who thought VHRs mostly have a negative impact, 22 percent to 20 percent. About 8 percent were unsure about the impact of VHRs.

Renters were far less likely to say that VHRs have mostly positive impacts. Only 7 percent of renters chose this option, compared to 26 percent of owners.



Figure 14: What is Your Overall Perception of the VHRs in Your Neighborhood?



### Major Themes

The survey results point toward many of the same themes identified in the Community Workshop:

- Survey participants see the cost of housing and the availability of different types of housing as key issues for the City to address.
- Participants want to own their own single-family homes, but also want to see more townhouses, rowhouses, duplexes, and apartment buildings constructed.
- Participants believe certain groups of residents— including young families, low-income families, professionals, and service employees—are underserved by the City's current housing mix.
- Participants see vacation home rentals as having both positive and negative impacts on the community, and worry in particular about them taking potential homes for permanent residents off the market.