



**KINGMAN AREA REGIONAL TRANSIT**

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**SHORT AND LONG  
RANGE TRANSIT PLAN**

**Working Paper 1: Existing Conditions  
September 2020**



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# 1. STUDY OVERVIEW

## INTRODUCTION

The City of Kingman initiated the Kingman Area Regional Transit (KART) *Short-Range and Long-Range Transit Plan* to identify what is working with KART system today, strategies to improve service, and to create a blueprint for addressing the region’s unmet transportation needs of today and tomorrow. This working paper documents the existing transit conditions, analyzes current transit performance, and provides context for the KART system.

## STUDY PURPOSE

The Short Range and Long Range Transit Plan will guide the development of the Kingman Area Regional Transit (KART) over the next five to ten years. Ultimately, the Plan will be a blueprint that will guide future transit planning, service operations, capital investment, and policy decisions. To create a blueprint for a sustainable, safe, innovative, and efficient transit service that improves the quality of life of residents, supports economic growth, and provides necessary local and regional transportation options, the Plan aims to:

- Review existing and historical system data to understand ridership and performance trends and to identify efficiencies, deficiencies, and operating effectiveness of current services.
- Evaluate the need for additional transit services to currently underserved areas.
- Understand the desires and expectations of the residents.
- Identify solutions and potential partnerships to support long-lasting, sustainable public transportation.
- Create an action plan for the operations, financial, marketing, and capital needs to guide implementation of recommendations.
- Develop a plan for short- and long-term public transportation improvements.

## STUDY AREA

As illustrated in **Figure 1.1**, the *Short-Range and Long-Range Transit Plan* is focused on the City of Kingman city limits and key unincorporated portions of Mohave County, such as New Kingman-Butler. Located along the BNSF Railway Company railroad line, the City spurred from mining and railroad operations. Known as the “heart of the historic route 66,” Kingman has the longest remaining preserved stretch of the historic Route 66. Today, Kingman is a thriving community that offers first-class medical facilities, regional shopping facilities, and numerous economic development sites. To provide regional access, this study will also analyze potential connection needs to neighboring communities, such as Valle Vista and Golden Valley, and transit agencies, such as Hualapai Transit and Bullhead Area Transit.

**Figure 1.1. Study Area**



# STUDY PROCESS

This Plan is a multi-phased process that includes an existing transportation review, service evaluation, short range plan, and long-term vision. The first phase of the study focuses on conducting a review of existing and future conditions, which will inform the short-range plan. Upcoming phases in the study include evaluating service options and developing a plan for implementing transit service improvements. **Figure 1.2** illustrates the process that will be utilized for this study. This document focuses on understanding the existing community, identifying the priority areas, evaluating existing services, projecting future conditions and needs, and evaluating peer cities.

**Figure 1.2. Study Process**



## RELATED STUDIES, REPORTS, & PLANS

Review of completed and current planning efforts provides an insight into previously identified transit issues and potential transit opportunities. **Table 1.1.** provides a synopsis of resources, plans, and programs relevant to this study.

**Table 1.1. Related Studies, Reports, & Plans**

Document	Description	Relevant Information
<b>Relevant Studies and Plans</b>		
KART 5 Year Transit Plan	KART’s comprehensive survey of community and service improvement plan, adopted in 2008	<ul style="list-style-type: none"> <li>• 5% annual growth in ridership 2003-2008</li> <li>• Additional service requested to airport and residential areas</li> <li>• Large swaths of undeveloped land in city limits noted as a challenge for efficient routing</li> <li>• 2007 Arizona Rural Transit Needs Study used to estimate transit demand</li> <li>• Actual demand 37.5% of estimate</li> </ul>
City of Kingman General Plan Update 2030	A general plan for the economic, physical, and managerial development of the city, adopted in 2014	<ul style="list-style-type: none"> <li>• Growth Area Objective 3.4: Provide for the development of a public transit system to link neighborhoods, shopping, employment, and public service areas and promote transit-friendly design and amenities.</li> <li>• KART described as “underfunded and infrequent”</li> <li>• Recommends:               <ul style="list-style-type: none"> <li>○ 30-minute headways, esp. during peak periods and on blue route</li> <li>○ New routes, including airport employment area</li> <li>○ Bus pull-outs, bus shelters, and a transit center</li> </ul> </li> </ul>
Kingman Area Transportation Study Update	Comprehensive, multi-modal transportation system plan, adopted in 2011	Recommends route options, transit infrastructure improvements, and active transportation infrastructure improvements
City of Kingman Economic Development Strategy	Strategic plan from the City of Kingman economic development department, compiled in 2019	<ul style="list-style-type: none"> <li>• Focus on manufacturing, logistics, and tourism (outdoor recreation)</li> <li>• 32% of population aged 51-74</li> <li>• Airport industrial park and downtown center could be better leveraged</li> <li>• City and county offer few constraints to sprawl</li> </ul>
WACOG Mohave & La Paz Counties Transit Assessment	A 2018 survey of stakeholders conducted across WACOG’s district to gauge transportation and transit needs and awareness	<ul style="list-style-type: none"> <li>• 33-40% of WACOG-area residents are 65+, disabled, or low-income</li> <li>• 84% of Kingman-area responses noted Walmart as a destination</li> <li>• Special partnership needed with hospital for late appointments</li> <li>• Comments show support for locally-applied taxes for transit</li> </ul>

Document	Description	Relevant Information
WACOG 2016-2021 Transportation Coordination Plan Annual Update	District-level plan to coordinate efforts for service to elderly, disabled, and/or low-income people, and development of priorities, adopted in 2018	<ul style="list-style-type: none"> <li>• Priorities stability (over time, of service), coordination between WACOG-area services, coordinated information and outreach, and increased connections between cities and to rural areas</li> <li>• Intercity connections to/from Kingman via: Tufesa, Amtrak, Greyhound, TriState Shuttle, Day and Night Shuttle, Commuter Services</li> </ul>
WACOG Strategic Transportation Safety Plan	A review of safety data and goals, adopted in 2018	Goal to 'Implement transit benefits for Shared Autonomous Vehicles'
Kingman Transit Feasibility Study	Report compiled in 2001, prior to KART (est. 2003)	<ul style="list-style-type: none"> <li>• "Checkpoint" service model recommended is similar to current deviated model</li> <li>• Recommended stops serviced except Airport/Industrial Park - listed second on transit destinations table</li> <li>• Recommended route similar to Yellow route; out-and-back to industrial park via Stockton Hill</li> </ul>

### Relevant Programs and Policies

KART 5311 Grant Application	Application for Federal Transit Administration Rural Transit & Intercity Bus (Section 5311) funding for FY2021-22, compiled in 2020	<ul style="list-style-type: none"> <li>• KART has received Section 5311 funding since 2003</li> <li>• Approx. 10% annual ridership growth rate</li> <li>• Curb-to-Curb program runs on a deviated route</li> <li>• Mohave County "refuses to assist in any way with the cost" of providing bus service to unincorporated areas</li> </ul>
KART ADA Transportation Policies	Description of services KART's offered in compliance with the Americans with Disabilities Act (1990)	<ul style="list-style-type: none"> <li>• Sufficient number of lift-equipped vehicles</li> <li>• Maintenance of ADA features on vehicles</li> <li>• No mention of ADA features in bus stop facilities</li> <li>• All drivers trained in wheelchair equipment use and passenger sensitivity</li> </ul>
Economic Impacts of the Kingman Municipal Airport and Industrial Park	Assessment and quantification of Airport and Industrial Park economic impacts in the greater Kingman community for FY18, compiled in 2019	<ul style="list-style-type: none"> <li>• 12 on-airport businesses with 125 employees</li> <li>• Industrial park houses 69 businesses and 2,600 employees <ul style="list-style-type: none"> <li>◦ 20% of city's employment base</li> <li>◦ Mostly manufacturing, warehousing</li> </ul> </li> <li>• Combined \$574.3M of economic impact in FY18</li> <li>• Supports 1,100 jobs and \$134.3M of economic impact in county outside of industrial park</li> <li>• Short-line railroad from industrial park to BNSF line through Kingman (100+ trains/day)</li> </ul>
Human Infrastructure in the Kingman Region	Report of demographic and employment statistics and growth opportunities, compiled for the City of Kingman in 2019	<ul style="list-style-type: none"> <li>• Older population with higher proportion of veterans than AZ average</li> <li>• Since 2014, job growth (10.4%) has outpaced population growth (3.5%)</li> <li>• Retail, health care, and service industries are primary employers</li> </ul>
Kingman Area Regional Transit Guide	City of Kingman user guide and system map for KART (2017)	<ul style="list-style-type: none"> <li>• All buses equipped with bike racks and are wheelchair accessible</li> <li>• Curb-to-Curb deviations available within ¼ mi of KART route</li> </ul>

## 2. CITY OF KINGMAN TODAY

Key to identifying the public transportation needs of a community is a clear understanding of the area’s current demographics and travel conditions. The following section presents an analysis of specific community characteristics, demographics, and employment characteristics as they relate to public transportation service.

### CURRENT POPULATION

Socioeconomic data is utilized to understand current and future transit demand within the Study Area. This information was used to identify areas with the greatest transit needs. The Arizona Office of Economic Opportunity estimates that the Greater Kingman Area has a population of 44,439. **Table 2.1** provides an overview of population and housing statistics for the Kingman area and the census designated places (CDP) of New Kingman-Butler, Golden Valley, and Valle Vista. As illustrated in the Table, Kingman and the New Kingman-Butler area have the highest number of residents and occupied housing units in the region.

**Table 2.1. Community Overview**

Demographic	Kingman	New Kingman-Butler CDP	Golden Valley CDP	Valle Vista CDP
Total Population	31,346	13,093	10,111	2,159
<b>Housing Characteristics</b>				
Total Housing Units	12,709	6,343	4,546	1,127
Occupied Housing Units	11,303	5,289	3,933	984
Vacant Housing Units	1,406	1,054	593	143
<i>% of Vacant Housing Units for Seasonal, Recreational, or Occasional Use</i>	8.5%	15.6%	49.4%	29.3%

Source: Arizona Office of Economic Opportunity, American Community Survey 5-Year Estimate (2014-2018)

### POPULATION DENSITY

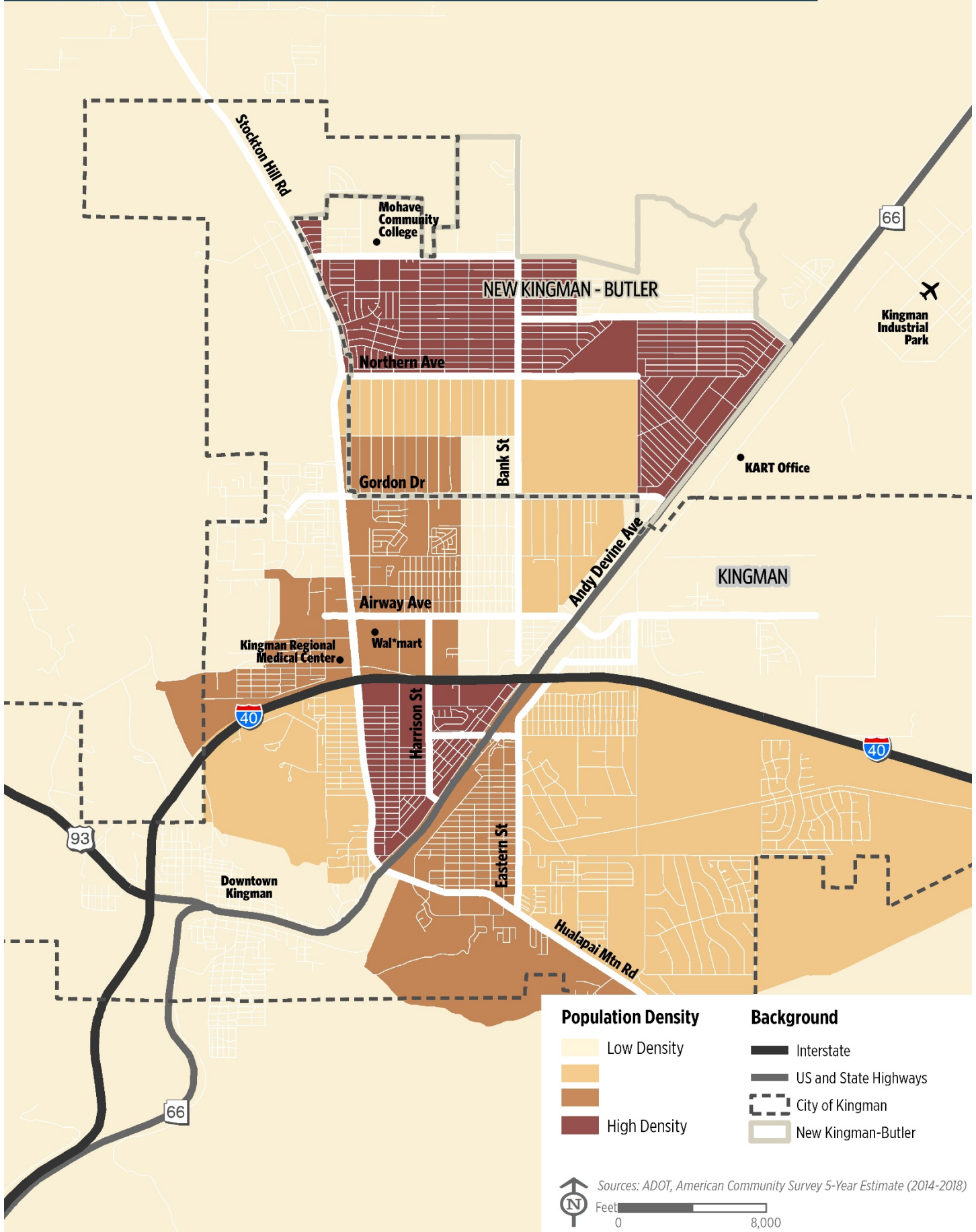
Population density is one of the most important factors when determining the success of a public transportation system, as the majority of trips (both transit or non-transit trips) originate or end at the home. **Figure 2.1** illustrates the distribution and density of population in study area. Kingman’s population is most densely concentrated in two areas: west of Andy Devine Avenue near Mohave Community College and northeast of downtown Kingman near the Kingman Regional Medical Center and the Walmart. These aforementioned areas are surrounded by comparatively less dense areas that nonetheless have significant populations.

### HOUSING UNIT DENSITY

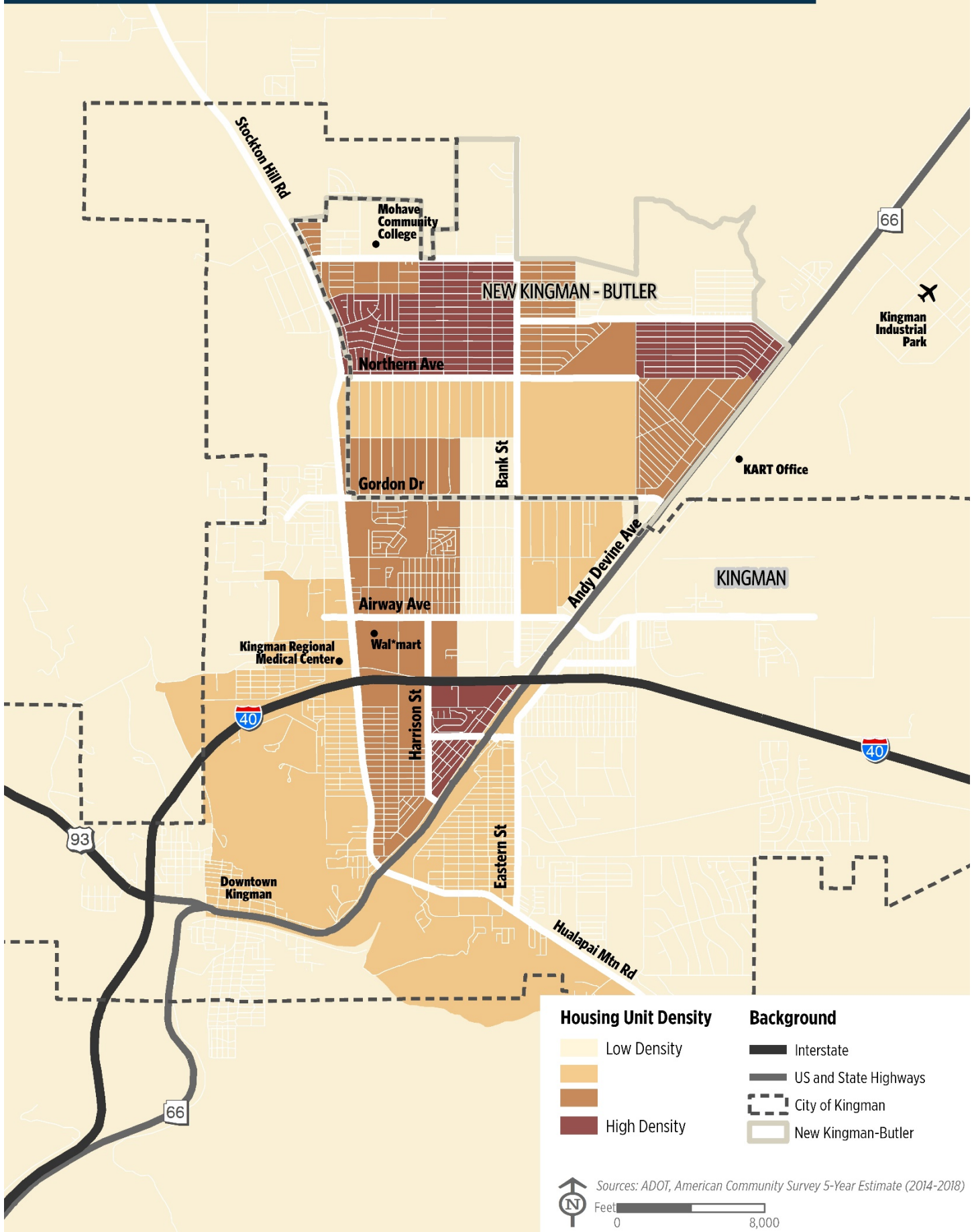
**Figure 2.2** illustrates the distribution of housing unit densities in Kingman. Housing unit densities generally track population densities, with the areas west of Andy Devine Avenue near Mohave Community College and northeast of downtown Kingman featuring comparatively high housing densities. 91 percent of Kingman’s vacant units are used for seasonal or recreational purposes, a uniquely high percentage. Areas of particularly high densities of these types of housing units pose challenge to transit services.



**Figure 2.1. Population Density**



**Figure 2.2. Housing Unit Density**



## TRANSIT DEPENDENT POPULATIONS

In addition to considering the overall population characteristics of an area, understanding specific demographic distributions and needs is vital to evaluating the feasibility of a transit system.

Transit riders are typically generalized into two categories:

- **Choice riders** have adequate resources and abilities to own, operate, and maintain a vehicle but chose to use transit. Choice riders are more likely to use public transportation for commuting or when transit offers an advantage over driving (i.e., roads are congested, high parking fees, passenger amenities, etc.)
- **Captive riders**, referred to as transit dependent riders, use public transportation because they lack access or resources to own or operate a vehicle. These riders use public transportation for most of their trips, including to get to work, medical appointments, shops, and social activities.

Choice riders can be located anywhere in a community, with the strongest market areas typically being areas with high population or employment density. Market areas for captive riders, however, is more complex as an understanding of population distributions and considerations for special concerns is needed. For example, older adults tend to travel during the daytime and require shorter walks to/from a bus stop. The following outlines six demographic groups typically associated with higher use of transit:

- **Youth** – individuals under 18 years old may have limited access to a vehicle or are unable to drive.
- **Older adults** – individuals aged 65 and older may become less comfortable driving as they age or are no longer physically able to drive.
- **Low-income individuals** – individuals who live within a set of income thresholds established by the US Census Bureau, which vary by family size and composition. Low-income households traditionally rely on public transportation as it is less expensive than owning and operating a vehicle.
- **Female led households** – female headed households are households led by a female-identifying person with no spouse present, with children under 18 years old present. Traditionally, this population group has a fixed income and generally have limited personal vehicle availability.
- **Zero car households** – persons residing in households without access to a vehicle traditionally rely on walking, biking, public transportation, or carpooling to meet their mobility needs.
- **Mobility limited** – persons with a disability often have difficulty operating a vehicle and require access to public transportation.

Table 2.2 provides a graphical comparison of transit dependent riders within the study area.

**Table 2.2. Overview of Transit Dependent Populations**

Demographic	Kingman	New Kingman-Butler CDP	Golden Valley CDP	Valle Vista CDP
Total Population	31,346	13,093	10,111	2,159
18 Years and Younger	22.3%	19.9%	11.1%	12.9%
Age 65 and Older	24.0%	22.6%	35.6%	42.1%
Low-Income Individuals	17.5%	28.0%	24.1%	10.5%
Female Led Household	4.7%	3.7%	1.5%	3.4%
Zero Car Households	6.5%	6.6%	4.3%	0%
Mobility Limited Persons	22.3%	22.9%	36.9%	23.3%

Source: Arizona Office of Economic Opportunity, American Community Survey 5-Year Estimate (2014-2018)

## Youth and Older Adults

Analyzing an area's age composition helps decision-makers understand the potential need for increased transit options. As people age, a person typically begins to drive less and requires alternative modes of transportation for medical appointments, shopping, and visiting family and friends. Children are unable to operate a vehicle and must rely on family, friends, walking, biking, or public transportation to travel. **Figure 2.3** and **Figure 2.4** illustrate areas with concentrations of youth and older adults, respectively. As illustrated in the figures, both populations generally follow the pattern outlined earlier. For the area northeast of downtown Kingman, they differ slightly in that youths are more concentrated around the Walmart and Kingman Regional Medical Center whereas older adults are clustered east of Harrison Street.

## Low-Income Individuals

Low-income populations are individuals that live within a set of income thresholds established by the US Census Bureau, which vary by family size and composition. Historically, persons with low incomes may rely on active and public transportation more than the general population; therefore, recognition of this group's concentration centers is needed to determine transportation needs. **Figure 2.5** illustrates areas with high percentages of people living below the poverty level. Densities of individuals residing below the poverty level exist along Stockton Hill Road near Mohave Community College and west of Andy Devine Avenue.

## Female Led Households

Female led households are identified as females with no spouse present, with children younger than 18 years of age present in the household. Households led by females are especially sensitive in the framework of planning for public transit services. Historically, this population group is particularly vulnerable to poverty. Households that have low incomes generally have limited vehicle availability, spend a higher proportion of income on transportation expenses, and have a higher usage of public transportation or carpooling. **Figure 2.6** illustrates areas with high percentages of households with female heads of houses. Female led households are primarily concentrated south of the Walmart and along Stockton Hill Road near Mohave Community College.

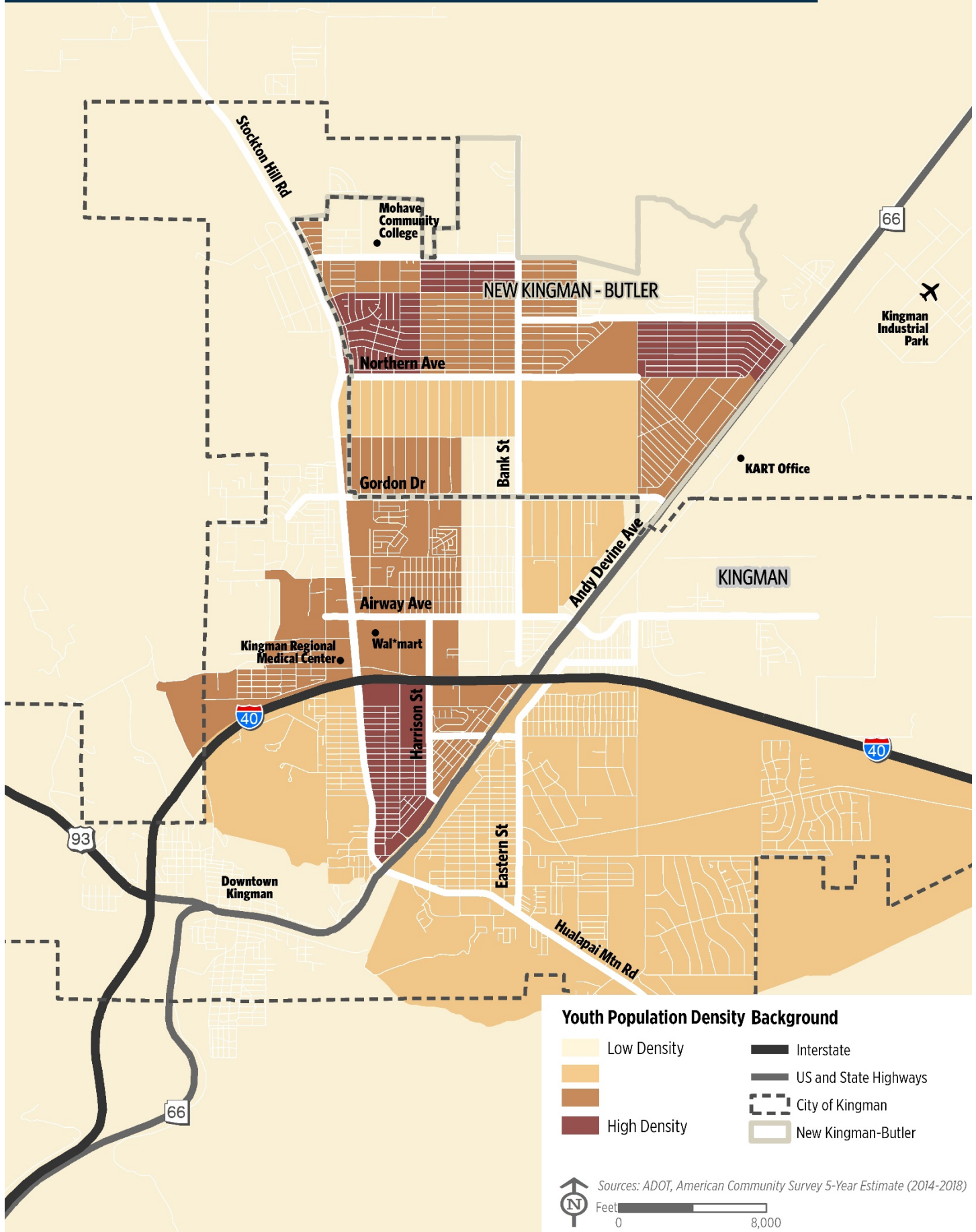
## Zero Car Households

Vehicle availability may limit a person's ability to commute to work or get to an activity center. Depending on the number of people living in each household, a certain number of vehicles may not be able to provide everyone with a means of transportation. According to the 2014-2018 ACS, 6.5 and 6.6 percent of households in Kingman and the New Kingman-Butler CDP, respectively, do not have any vehicles available, necessitating the use of alternate means of transportation. **Figure 2.7** illustrates areas with concentrations of households with no vehicles available. The highest densities of zero car households occur west of Andy Devine Avenue and south of Thompson Avenue. Moderate concentrations also exist around downtown Kingman and east of Harrison Street.

## Mobility Limited Persons

Mobility limited populations are civilian, noninstitutionalized persons who have disabilities (such as sensory, physical, self-care, and/or employment disabilities). This population group often has difficulty operating automobiles and may require access to public transportation. **Figure 2.8** illustrates areas with concentrations of persons with mobility limitations. Areas west of Andy Devine Avenue near Mohave Community College and around Harrison Street have the highest concentrations of mobility limited persons. These areas are also where older adults concentrated, which may explain this concentration.

**Figure 2.3. Density of Youth Population (Under 18 Years of Age)**

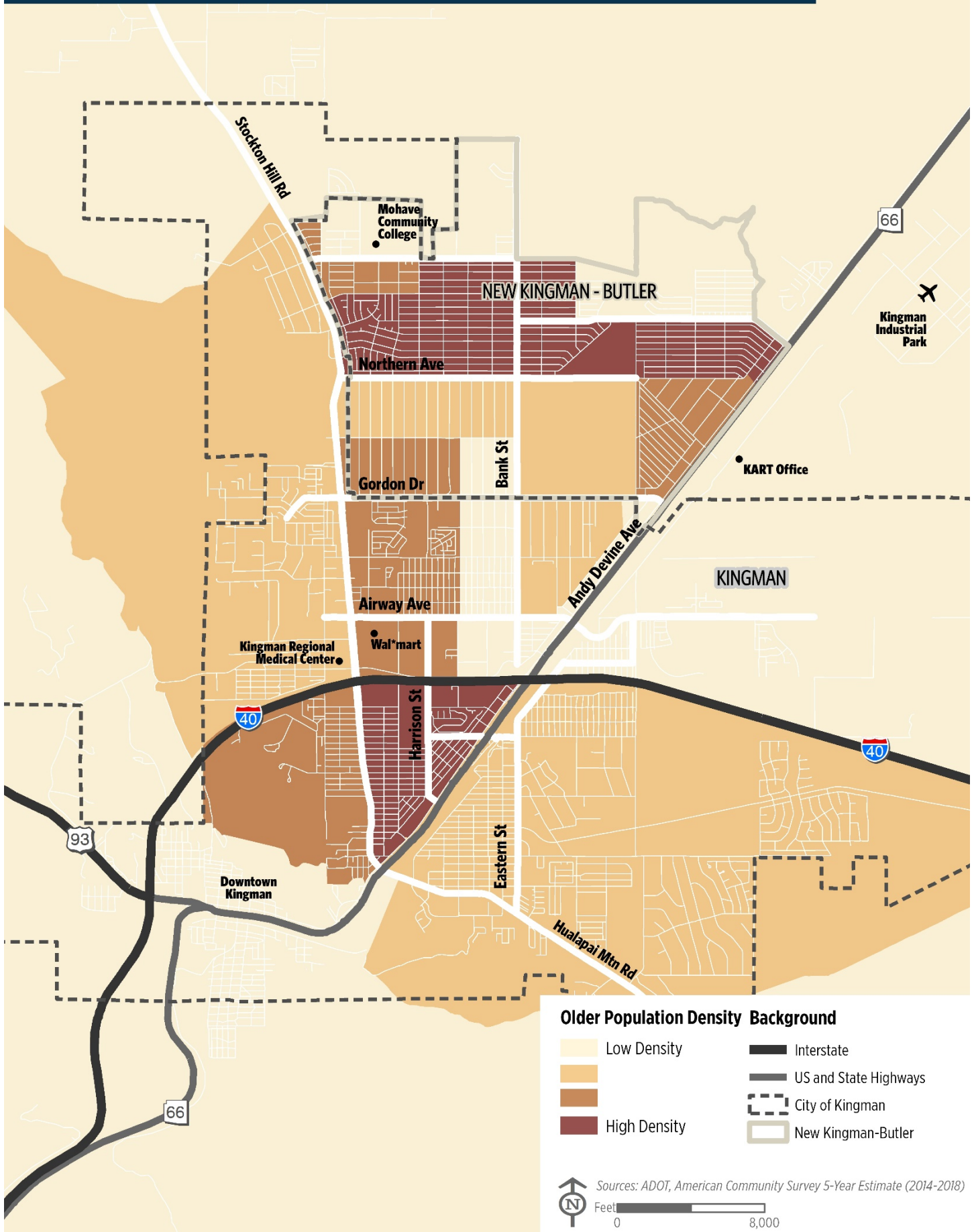


**Youth Population Density Background**

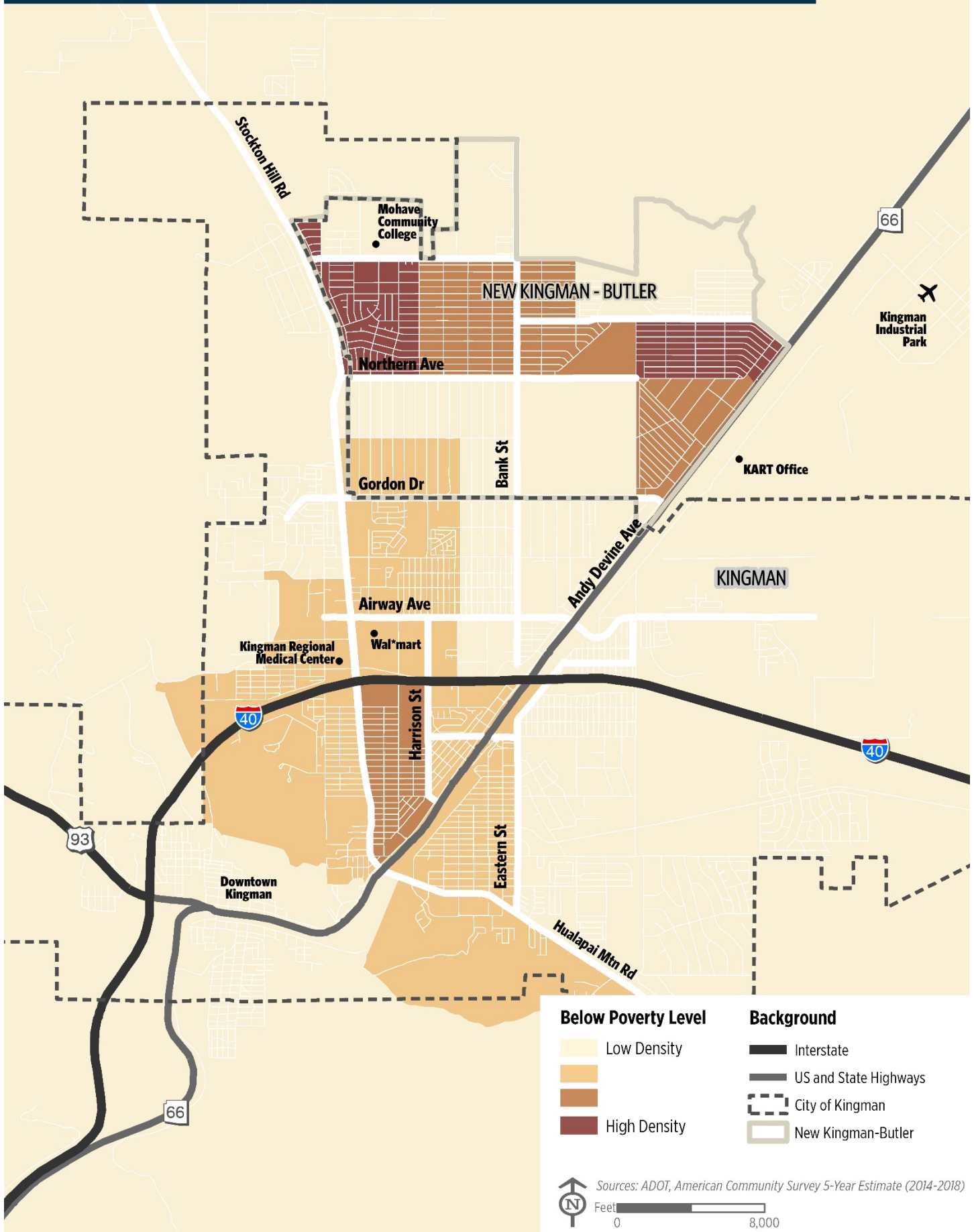
- Low Density
- Medium-Low Density
- Medium-High Density
- High Density
- Interstate
- US and State Highways
- City of Kingman
- New Kingman-Butler

Sources: ADOT, American Community Survey 5-Year Estimate (2014-2018)  
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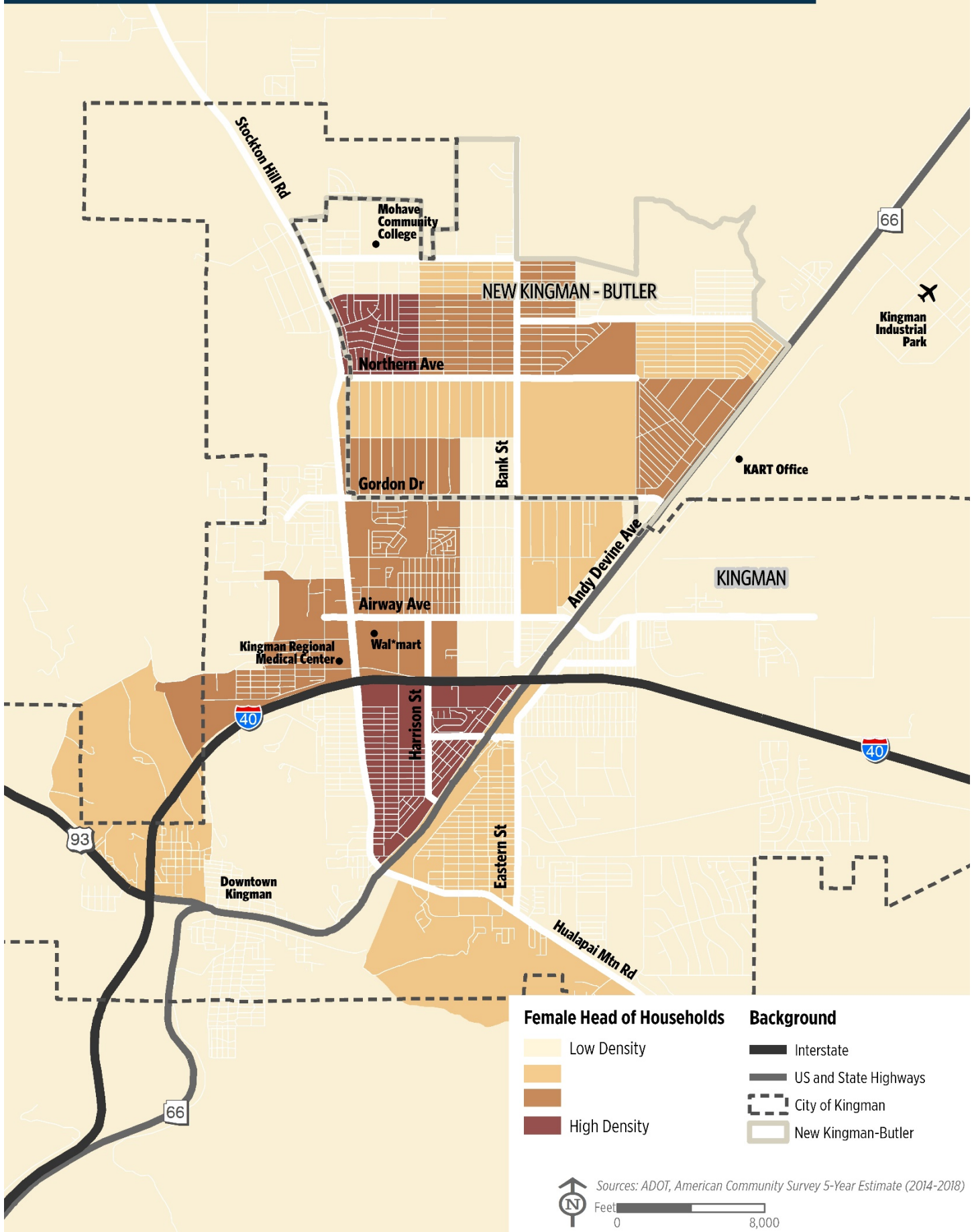
**Figure 2.4. Density of Older Adults (Age 65 and Older)**



**Figure 2.5. Density of Persons Residing Below Poverty Level**

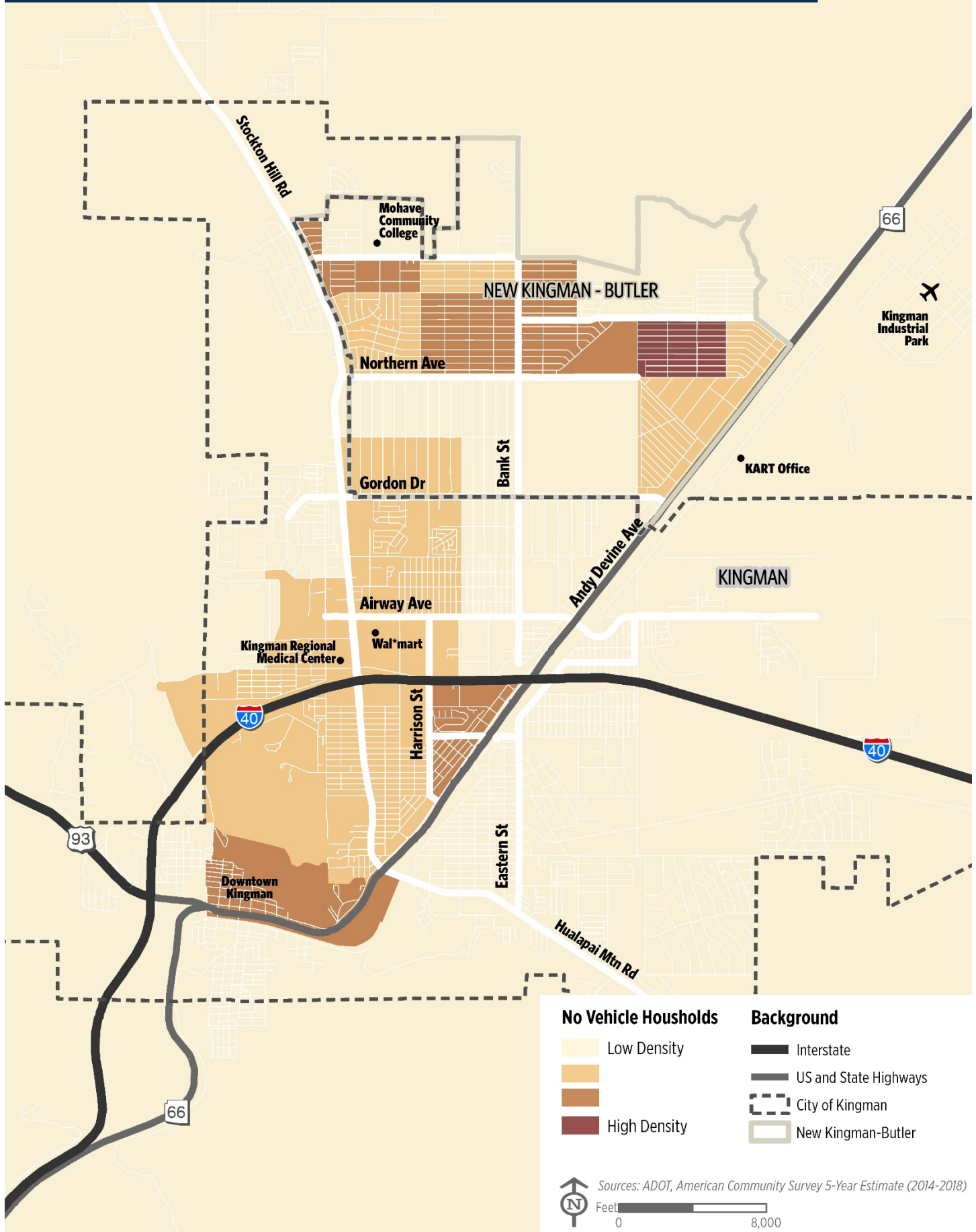


**Figure 2.6. Density of Female Head of Households**

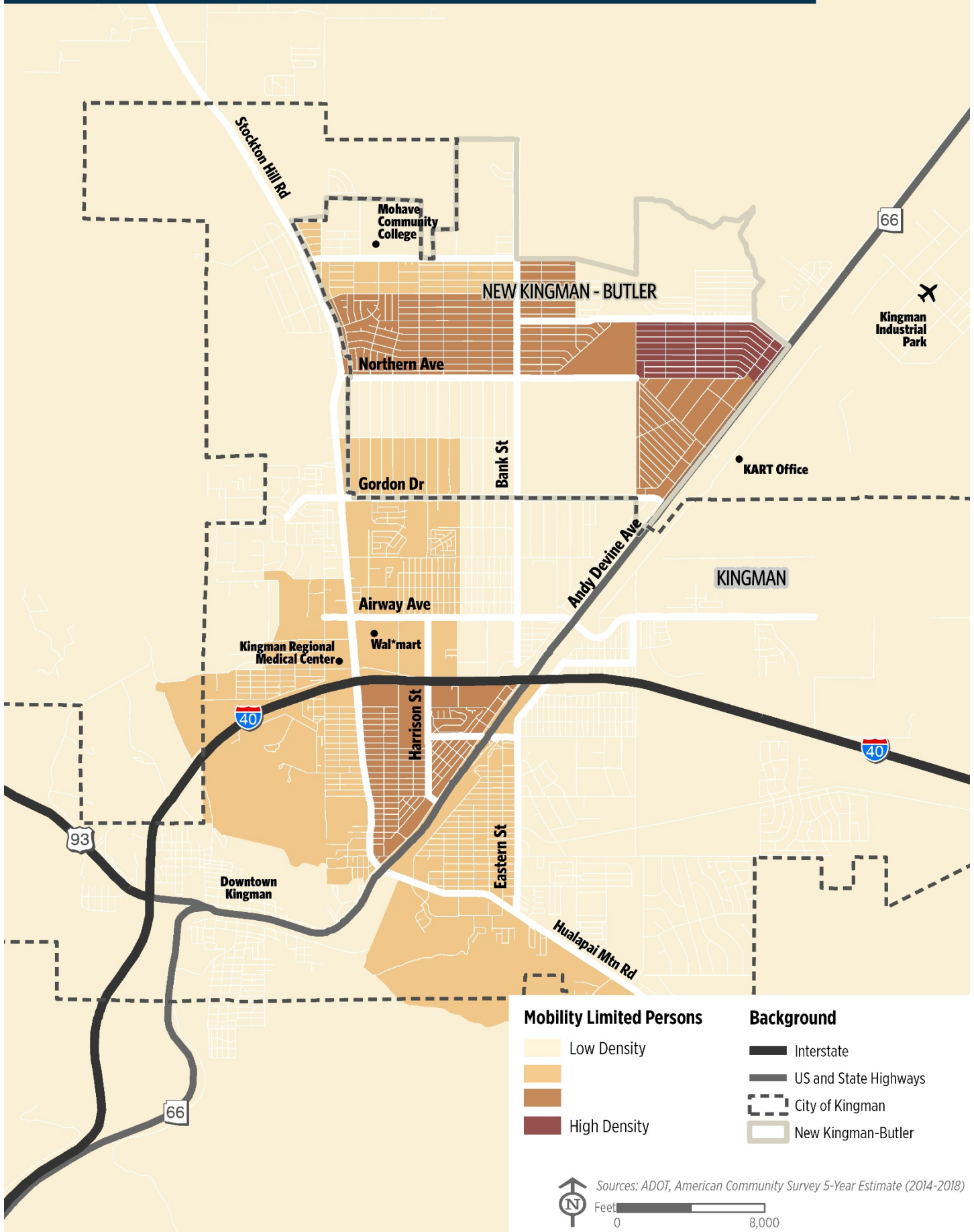




**Figure 2.7. Density of Households with No Vehicles Available**



**Figure 2.8. Density of Mobility Limited Persons**



## COMPOSITE TRANSIT RELIANCE INDEX

Transit reliance combines key socioeconomic characteristics of transit dependent population groups into a single measure to estimate areas that might have a greater tendency to use public transportation as their primary method of transport. To understand areas within the Kingman area that may have the highest need for public transportation services, a transit reliance index was developed and mapped.

To create the index score, each Census block group was assigned a score between 1 to 5 based on the level of density of each transit dependent population group. For example, a block group with a high density of older adults will receive a score of 5, whereas, if the block group has a low density of youth it would receive a score of 1. After assigning each block group a score, the score for each characteristic is summed, resulting in a number from 6 to 30, called the “Transit Reliance Index.”

Table 2.3 outlines the index scoring system and each group’s breakpoint.

**Table 2.3. Transit Reliance Scoring System**

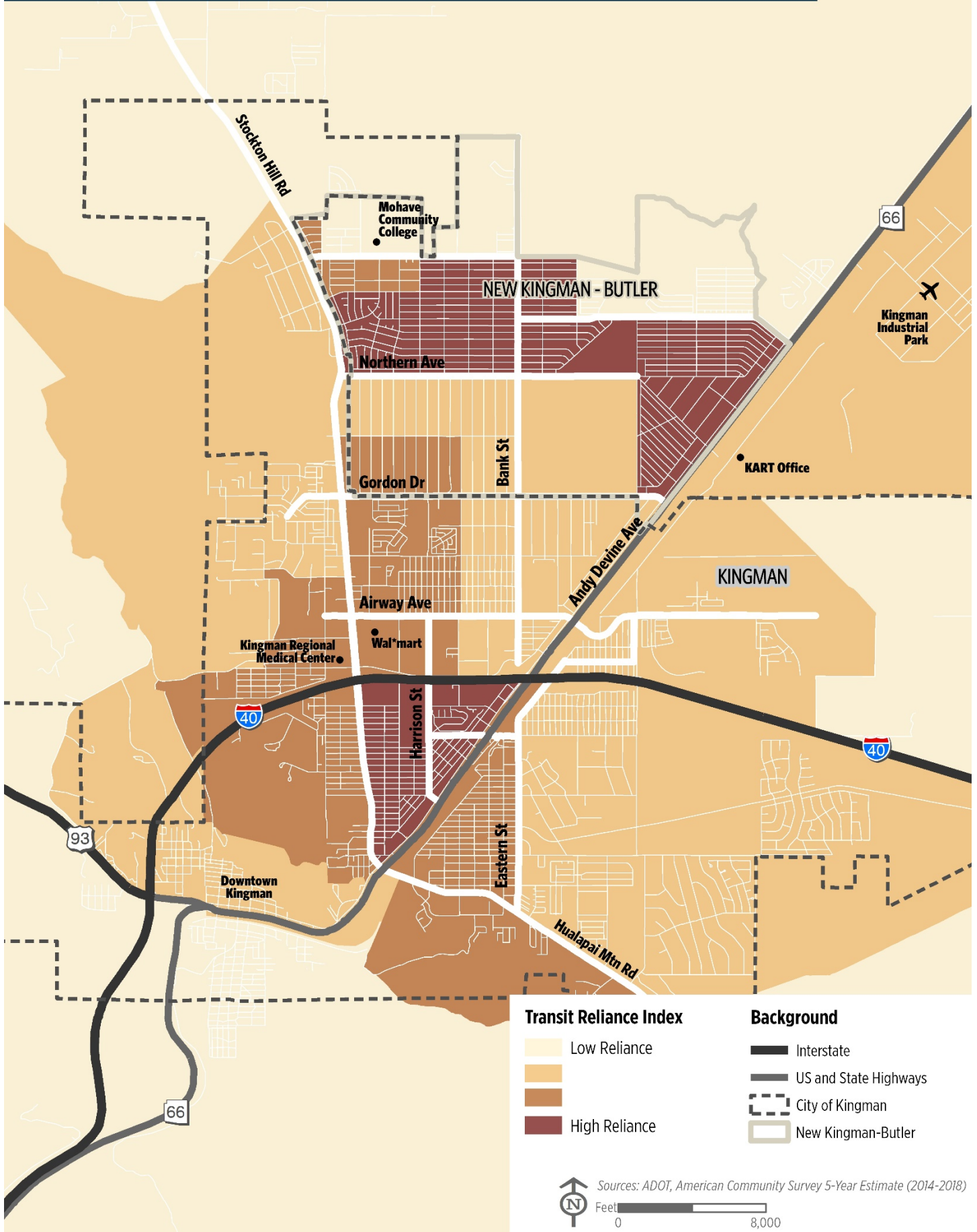
Score	Youth	Older Adults	Low-Income Individuals	Female Led Households	Zero Car Households	Mobility Limited Persons
1	< 22.74	< 21.66	< 18.46	< 13	< 1.99	< 25.32
2	22.75 – 91.44	21.67 – 95.96	18.47 – 62.96	.14 – 8.65	2 – 6.80	25.33 – 102.58
3	91.45 – 257.48	95.97 – 297.41	62.97 – 206.19	8.66 – 19.46	6.81 – 43.72	102.59 – 249.99
4	257.49 – 444.31	297.42 – 471.57	206.20 – 628.98	19.47 – 75.73	43.73 – 68.84	250 – 501.50
5	> 444.32	> 471.58	> 628.99	> 75.74	> 68.85	> 501.51

Scores for each factor are computed by sorting the values into quintiles. For example, Census block groups receiving a Youth score of 5 represent the top 20% of Youth densities in the study area.

Figure 2.9 illustrates the composite Transit Reliance Index for Kingman. Several trends illustrated in the figure include:

- Transit reliance tends to decrease moving outward from central Kingman.
- The areas near the Kingman Regional Medical Center and the Walmart have a high transit reliance, as these areas generally have high concentrations of all the transit reliance populations.
- The area west of Andy Devine Avenue near Mohave Community College has a heavy concentration of high transit reliance. This area has high concentrations of mobility limited persons, older adults, and persons residing below the poverty level.

**Figure 2.9. Transit Reliance Index**



## TRANSPORTATION GENERATORS

Transportation generators are locations within a community that act as generators of transportation trips and are frequent destinations within a community. Understanding these destinations is critical in the evaluation of existing services and determining future transit needs.

## MAJOR EMPLOYERS

The location and number of jobs is a strong indicator of transit demand, as traveling to and from work is a frequent trip type served by transit. Healthcare, manufacturing, consumer services, retail, tourism, and government are the primary drivers of the region's economy. Based on readily available data from the Arizona Council of Governments/Metropolitan Planning Organization Employer Database, there are approximately 17,086 employees within the City of Kingman. The top employers in the region include:

- Kingman Regional Medical Center - 1,250 employees
- Mohave County - 200 employees
- Walmart - 200 employees
- City of Kingman - 125 employees

In the same manner as population densities, employment densities provide a strong indication of underlying employment-based transit demand. **Figure 2.10** illustrates employment densities within the study region. Low density areas do not illustrate a lack of potential transit demand, but rather additional analysis and insight into trip attractions and generators are needed.

## MAJOR ACTIVITY CENTERS

Major activity centers are catalysts in creating trips within communities. Areas of dense activity centers tend to have more people attempting to commute to them; therefore, it is important to provide transportation options to and from these areas. Within the study area, there are numerous key activity centers, including:

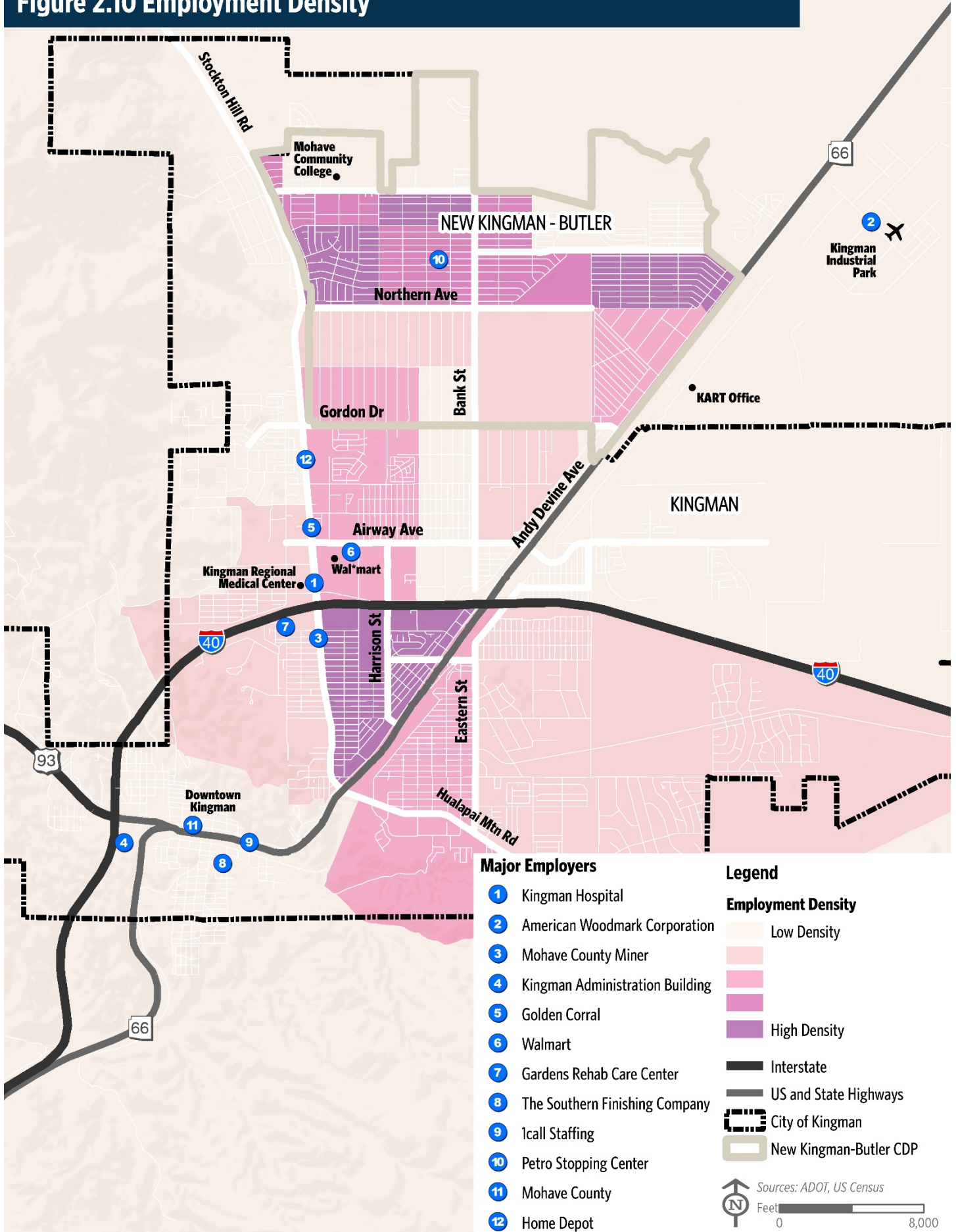
- Downtown Kingman District
- Centennial Park
- Government Buildings
- Senior Center
- Shopping Centers
- Libraries

## SCHOOLS

While this study does not focus on providing services for elementary, middle, and high school students, providing services for residents to access educational opportunities at colleges is a critical element. Existing schools include:

- Mohave County Community College (MCCC)
- Kingman High School
- Lee Williams High School
- Kingman Middle School
- White Cliffs Middle School
- Cerbat Elementary School
- Desert Willow Elementary School
- Manzanita Elementary School
- Hualapai Elementary School
- Private Educational Opportunities
- Daycare Facilities

**Figure 2.10 Employment Density**



**Major Employers**

- 1 Kingman Hospital
- 2 American Woodmark Corporation
- 3 Mohave County Miner
- 4 Kingman Administration Building
- 5 Golden Corral
- 6 Walmart
- 7 Gardens Rehab Care Center
- 8 The Southern Finishing Company
- 9 Icall Staffing
- 10 Petro Stopping Center
- 11 Mohave County
- 12 Home Depot

**Legend**

**Employment Density**

- Low Density
- High Density

- Interstate
- US and State Highways
- City of Kingman
- New Kingman-Butler CDP

Sources: ADOT, US Census  
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## CURRENT COMMUTE AND TRAVEL BEHAVIOR

Understanding how people are moving through Kingman and the region is an important step in developing effective transit improvements to better serve residents and visitors. Using 2014 – 2018 American Community Survey (ACS) data, commuting patterns and vehicle availability were identified. Although Kingman is primarily an automobile-oriented community, many people do not have access to a vehicle, choose not to drive, or are unable to operate a vehicle.

### MEANS OF TRANSPORTATION

**Table 2.4** summarizes the mode of transportation for workers age 16 and older to commute to work for the areas of Kingman, New Kingman-Butler, Golden Valley, and Valle Vista. As presented in the table, New Kingman-Butler has the highest percentage of persons who carpool to work. Golden Valley is home to a higher percentage of persons biking or walking to work, and Valle Vista has a relatively high percentage of persons working from home. Generally, persons living in the area primarily drive to work alone.

**Table 2.4. Means of Transportation to Work**

	Kingman	New Kingman-Butler	Golden Valley	Valle Vista CDP
Workers 16 Years and Over	10,000	4,452	2,368	578
Drove alone	81.3%	82.9%	85.6%	81.5%
Carpooled	10.5%	14.4%	8.7%	13.0%
Public Transportation	2.2%	0.2%	0.0%	0.0%
Biked or Walked	1.8%	0.7%	3.0%	1.4%
Worked at Home	3.3%	0.9%	2.2%	4.2%
Other	1.0%	0.9%	0.6%	0.0%

Source: American Community Survey 5-Year Estimate (2014 – 2018).

### TRAVEL TIME TO WORK

According to the 2014 – 2018 ACS estimates, the mean one-way travel time for workers in Kingman is about 16 minutes. In comparison, Mohave County averages a 21-minute one-way commute. **Table 2.5** outlines commute times for Kingman and nearby communities. As outlined in the table, 31 percent of employees in Kingman have a commute time of 10 minutes or less. The majority of employees in Kingman and New Kingman-Butler have a commute time under 20 minutes, whereas Golden Valley and Valle Vista average higher commute times over 20 minutes. Typically, the shorter a commute is, the less attractive public transportation is for choice riders.

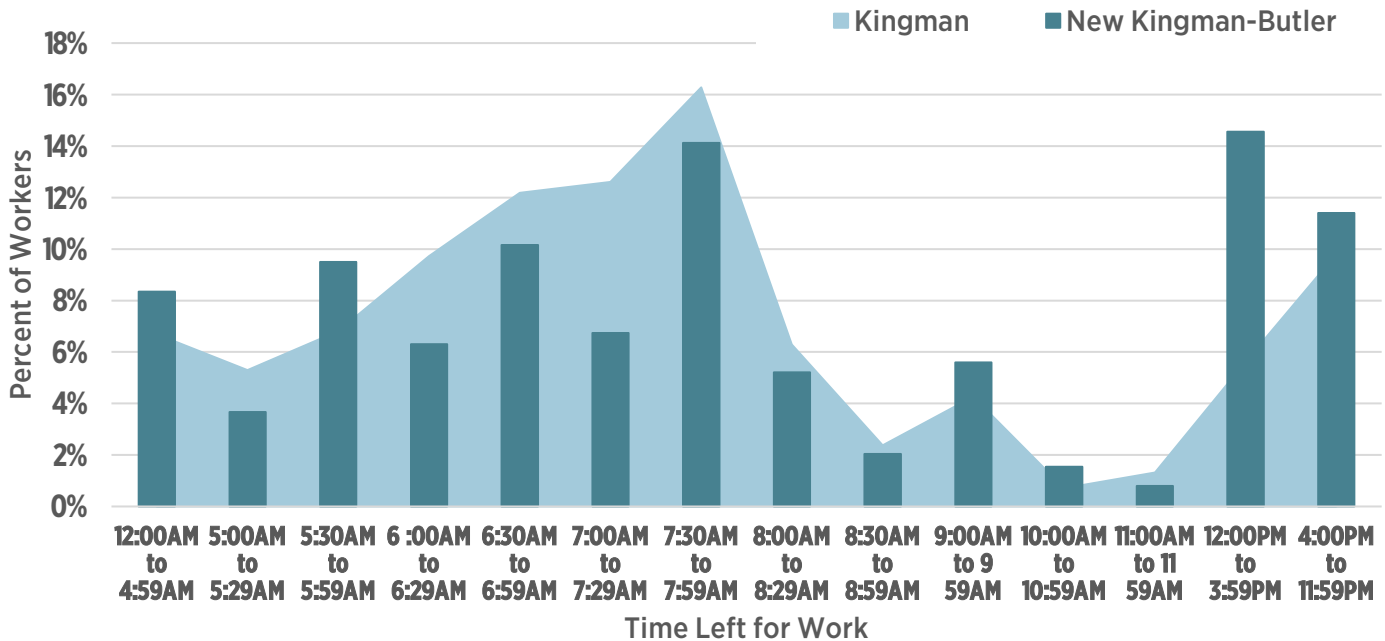
**Table 2.5. Travel Time to Work**

	Kingman	New Kingman-Butler	Golden Valley	Valle Vista CDP
Average Travel Time	15.9 min.	17.5 min	28.1 min	35.6 min
Less than 10 Minutes	31%	19%	11%	21%
10 to 19 Minutes	48%	54%	33%	8%
20 to 29 Minutes	7%	15%	15%	19%
30 to 59 Minutes	8%	7%	35%	35%
50 to 89 Minutes	4%	2%	0%	11%
90 or More Minutes	1%	3%	5%	6%

Source: American Community Survey 5-Year Estimate (2014 – 2018).

Figure 2.11 illustrates the typical time employees leave for their commute to work in the study area. As shown in the figure, the major of employees leave their house between 6:00 am and 8:00 am. There is also a spike in afternoon and in the evening after 4:00 pm.

Figure 2.11. Time Leaving Home from Work



## VEHICLE AVAILABILITY

Lack of access to a vehicle may limit a person or household’s travel options; even households with access to 1 or 2 vehicles may have household members who have transportation concerns as a vehicle may not be available when in use by another household member. **Table 2.6** outlines the total number of vehicles available per households in Kingman and surrounding communities. According to 2014 – 2018 ACS estimates, 6.5 percent of households in Kingman do not have access to a vehicle, which necessitates that residents utilize alternate modes of transportation.

Table 2.6. Access to Vehicles

	Kingman	New Kingman-Butler	Golden Valley	Valle Vista CDP
Occupied Housing Units	11,303	5,289	3,933	984
No Vehicle Available	6.5%	6.6%	4.3%	0.0%
1 Vehicle Available	41.1%	40.5%	34.6%	27.3%
2 Vehicles Available	35.4%	34.7%	40.0%	53.0%
3 or More Vehicles Available	17.0%	18.2%	21.0%	19.6%

Source: American Community Survey 5-Year Estimate (2014 – 2018).



## COMMUTING PATTERNS

Utilizing the US Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) OnTheMap application, regional commuting patterns can be identified. The portal is a nationwide database that reports where workers are employed and where they live. Understanding commuting patterns within Kingman and between cities helps us determine local and regional travel needs needs.

According to the LEHD, 40.3% of Kingman workers live within the City. Over 11% of those that work in Kingman live in the New Kingman-Butler area. Over 7% of Kingman residents; however, work out of the Phoenix metropolitan area, either remote or in-person. Another 2.3% commute to Lake Havasu City for work.

Figure 2.12 and Figure 2.13 and Tables 2.7 and 2.8 provide additional detail on where Kingman residents are working.

**Table 2.7. Top 10 Places Where Kingman Residents Work (2017)**

Place	Total Jobs	Percent Share
City of Kingman	5,088	43.5%
Phoenix, AZ	897	7.7%
Lake Havasu City, AZ	276	2.4%
New-Kingman Butler CDP	214	1.8%
Bullhead City, AZ	208	1.8%
Peach Springs, AZ	175	1.5%
Scottsdale, AZ	154	1.3%
Flagstaff, AZ	143	1.2%
Las Vegas, NV	127	1.1%
Golden Valley CDP	116	1.0%

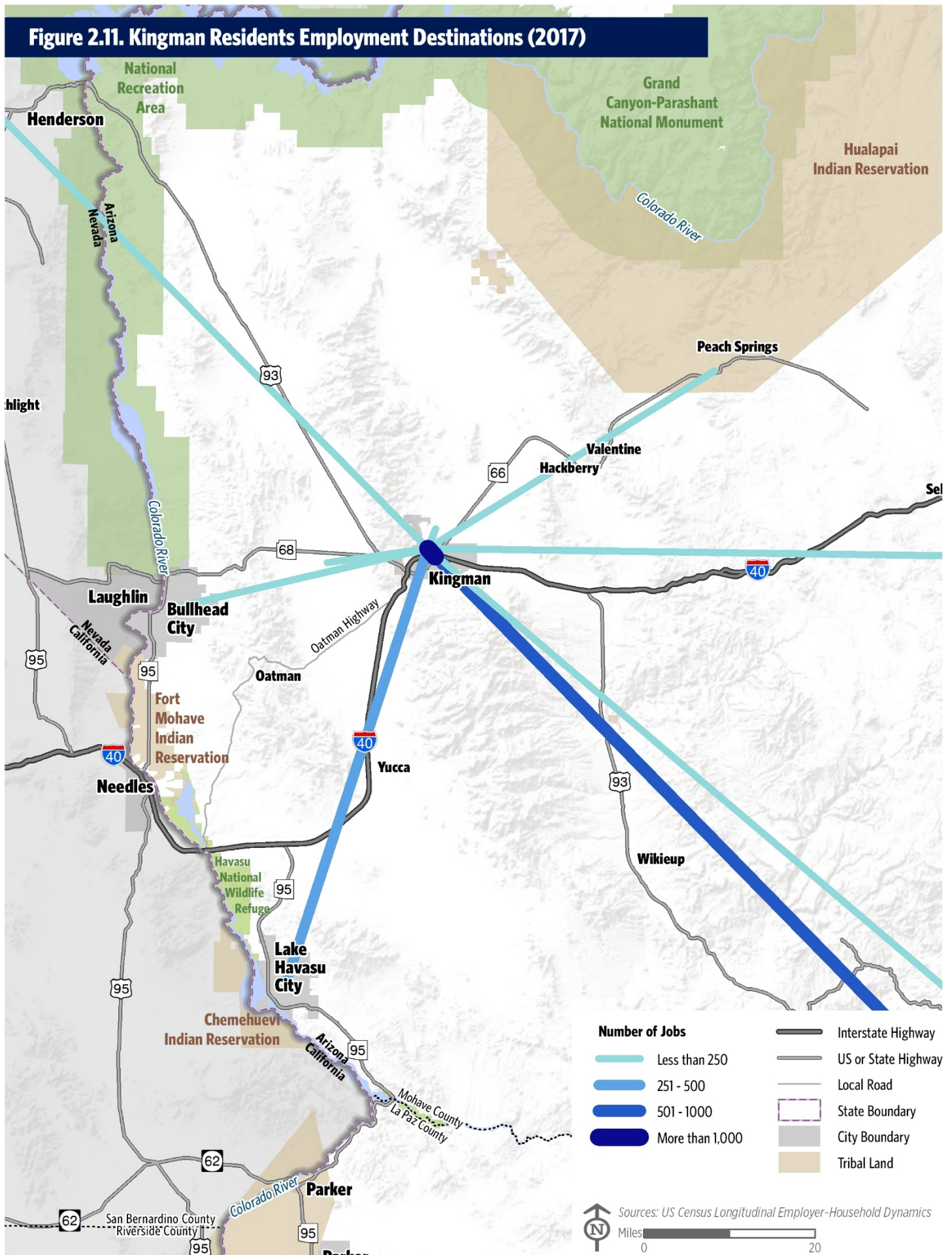
Source: US Census Bureau, Longitudinal Household-Employer Dynamics Program, 2017

**Table 2.8. Top 10 Where People Employed in Kingman Live (2017)**

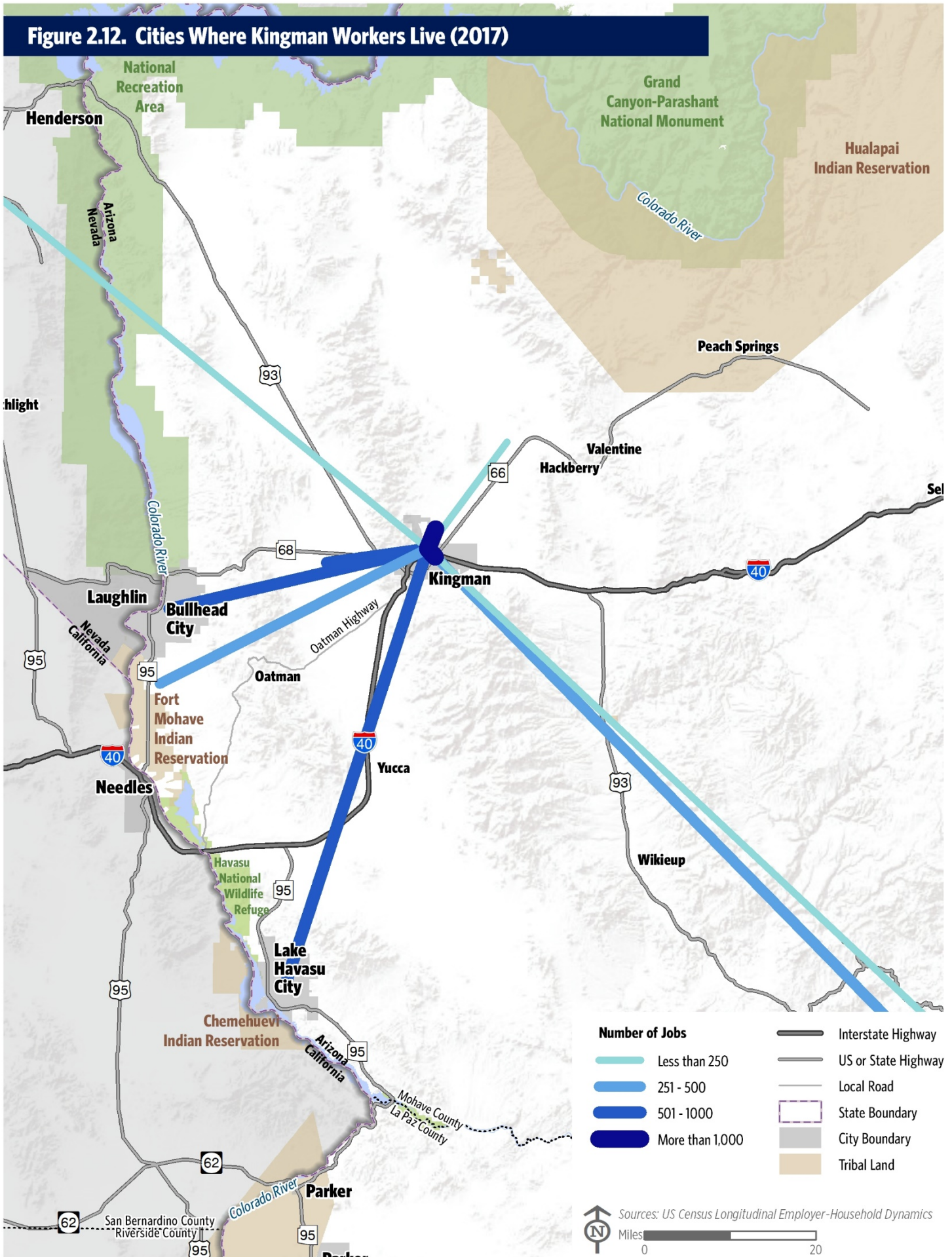
Place	Total Jobs	Percent Share
City of Kingman	5,088	40.3%
New-Kingman Butler CDP	1,443	11.4%
Lake Havasu City, AZ	772	6.1%
Golden Valley CDP	603	4.8%
Bullhead City, AZ	577	4.6%
Phoenix, AZ	275	2.2%
Fort Mohave CDP	251	2.0%
Valle Vista CDP	84	0.7%
Mesa, AZ	74	0.6%
Enterprise CDP, NV	73	0.6%

Source: US Census Bureau, Longitudinal Household-Employer Dynamics Program, 2017

**Figure 2.11. Kingman Residents Employment Destinations (2017)**



**Figure 2.12. Cities Where Kingman Workers Live (2017)**



# 3. CURRENT SYSTEM ASSESSMENT

The following sections reviews historical and current public transportation conditions within the study area in order to understand current transportation opportunities, challenges, and issues.

## KINGMAN AREA REGIONAL TRANSIT (KART)

Since 2003, the KART has provided rural public transit service in Kingman and the Greater Kingman-Butler area. KART services are funded through the federal Section 5311 grant program, fare revenue, advertising revenue and the City of Kingman general fund. Today, KART offers four deviated fixed routes that connect residents to major activity centers such as the Kingman Regional Medical Center, Mohave Community College, shopping centers, parks and recreation centers, and social service agencies.



### SYSTEM ROUTES

The KART system includes four routes: Blue, Red, Green, and Yellow. All routes are managed and operated by the City of Kingman. A system map can be found in **Figure 3.1**.

### SYSTEM SPAN

All routes run six days a week, Monday through Saturday, with the exception of City-observed holidays. Weekday routes run hourly, running from 6:00 am to 6:00 pm or 8:00 pm, depending on the route, and all routes operate between 9:00 am to 4:00 pm on Saturdays. Each route meets hourly at the transfer center located at Walmart, which acts as a transfer center for KART.



If scheduled in advance, buses will deviate up to 3/4<sup>th</sup> of a mile for boardings and alightings, as displayed in **Figure 3.1**. Fifteen minutes of leeway per hour is built into each route to allow time for deviations, traffic congestion and transit operator breaks. A summary table of service characteristics can be found in **Table 3.1**.

**Table 3.1. System Characteristics by Route**

Route	Service Hours	Headways	Route Mileage	Daily Runs
Red	Weekday: 6 AM – 6 PM Saturday: 9 AM – 4 PM	1 hour	13.8	12
Blue	Weekday: 6 AM – 6 PM Saturday: 9 AM – 4 PM	1 hour	12.0	12
Green	Weekday: 6 AM – 8 PM Saturday: 9 AM – 4 PM	1 hour	12.9	14
Yellow	Weekday: 6 AM – 8 PM Saturday: 9 AM – 4 PM	1 hour	14.2	14

**Figure 3.1. Existing KART System Map**



\* Per KART policy: some locations within 3/4 miles of the fixed route may still be considered outside the service area. This may be due to limited access or other geographical condition that would require an excessive amount of time for the transit vehicle to deviate from and then return to its fixed route.

## DEMAND-RESPONSE SERVICES

KART operates a program, called Curb-to-Curb, that is integrated with its fixed route services. This arrangement, known as a deviated fixed route, or a flex route, allows for deviations up to 3/4<sup>th</sup> of a mile from the designated route. Registered Curb-to-Curb clients call the dispatch office to schedule trips no later than 3:00 PM the day prior to service. Additionally, while aboard, passengers can request deviations directly with the driver; however, these deviations can only occur if time allows, which is why KART strongly encourages passengers to schedule in advance. As route deviations are generally scheduled in advance, deviation instructions are provided to each transit operator at the beginning of their shift. The bus leaves the route at the appropriate time to pick-up or drop-off passengers at their pre-scheduled destination and then returns to the route where it left off. Each route meets hourly at the transfer center located at Walmart. It is there that passengers, whether Curb-to-Curb or using the fixed route stops, will transfer to a different route when needed. The service coverage of the deviations for KART’s flex routes are displayed in **Figure 3.1**.

## FARE STRUCTURE

**Table 3.2** details the fare structure currently offered by KART. There are multiple options for payment when riding KART, including purchasing tickets in advance or when boarding. Fares, a coupon, or a pass must be provided each time a passenger boards the bus, and for cash fares exact change is required, as drivers cannot make change.

**Table 3.2. KART Fare Structure**

Item	General Public	Seniors (60+) <sup>4</sup>	Veterans <sup>4</sup>	People with Disabilities <sup>4</sup>	Children (under 10 years old) <sup>5</sup>
One Way Fare	\$1.50	\$1.50	\$1.50	\$1.50	
Book of 30 coupons <sup>1</sup>	\$45.00	\$45.00	\$45.00	\$45.00	
Day Pass <sup>2</sup>	\$5.00	\$5.00	\$5.00	\$5.00	Free
Monthly Pass <sup>2, 3</sup>	\$55.00	\$45.00	\$45.00	\$55.00	
Curb-to-Curb	\$6.00	\$3.00	\$6.00	\$3.00	

<sup>1</sup> Each coupon valid for one (1) one-way fare; <sup>2</sup> Valid for unlimited rides on fixed-route services; <sup>3</sup> Valid within a given calendar month; <sup>4</sup> Must provide valid identification; <sup>5</sup> Must be accompanied by an adult

## ROUTE PROFILES

The following section contains a summary of each route based on historic data and field observations. Ridership is measured in terms of average daily boardings, which refers to the number of times a passenger enters a vehicle. Route productivity is measured by dividing average daily boardings by the number of scheduled daily revenue hours, or the time in which all vehicles assigned to a route are in service for a particular level of service (i.e. weekday or Saturday).

## CORONAVIRUS PANDEMIC RESPONSE

In response to social distancing measures related to the COVID-19 global pandemic, KART temporarily altered routes and schedules to limit the number of riders aboard buses. The Yellow and Green routes were changed to two buses running 30-minute schedules. These “shadow” buses were spare buses returned from retirement. KART is currently limiting occupancy to 10 people per vehicle (9 passengers with 1 driver). KART also modified its service hours to 9 AM – 4 PM, Monday through Saturday. Lastly, KART is currently operating all four routes fare-free to provide service for essential workers and essential trips. The following route profiles does not

reflect standard operating procedures until December 2019 to illustrate common practices and ridership.

# Blue Route

The Blue Route travels in a one-way counterclockwise loop through central Kingman along Roosevelt Street, Morrow Avenue, Western Avenue, and Stockton Hill Road. The route begins and ends at the Walmart Transfer Center. Key destinations include the KOA Campground, Safeway, Kingman Regional Medical Center, Mohave Mental Health, and the U.S. Post Office.

## ROUTE OVERVIEW

**14.0**  
ROUTE LENGTH  
(Miles)

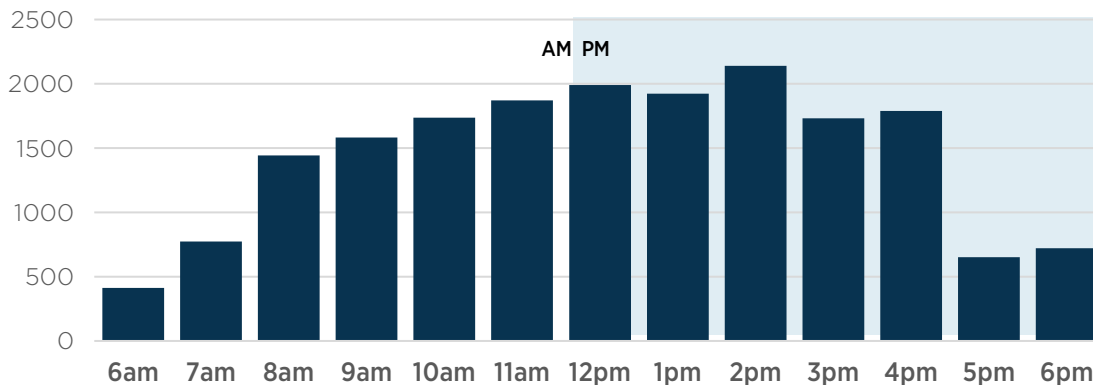
**8**  
NUMBER OF  
LEFT TURNS

**25**  
NUMBER OF  
STOPS

**12**  
NUMBER OF  
ROUTE TRIPS  
PER DAY

## ROUTE RIDERSHIP

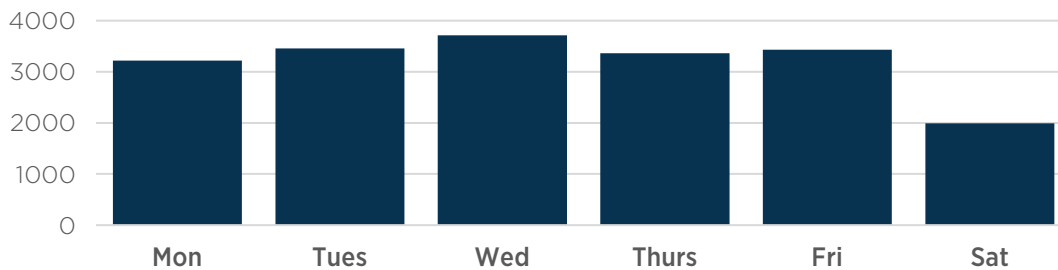
Total Boardings by Hour (2019)



**16,650**  
ANNUAL  
RIDERSHIP (2019)

**75**  
AVERAGE  
WEEKDAY  
BOARDINGS (2019)

Total Boardings by Day (2019)



**41**  
AVERAGE  
SATURDAY  
BOARDINGS (2019)

## ROUTE ANALYSIS

Strengths

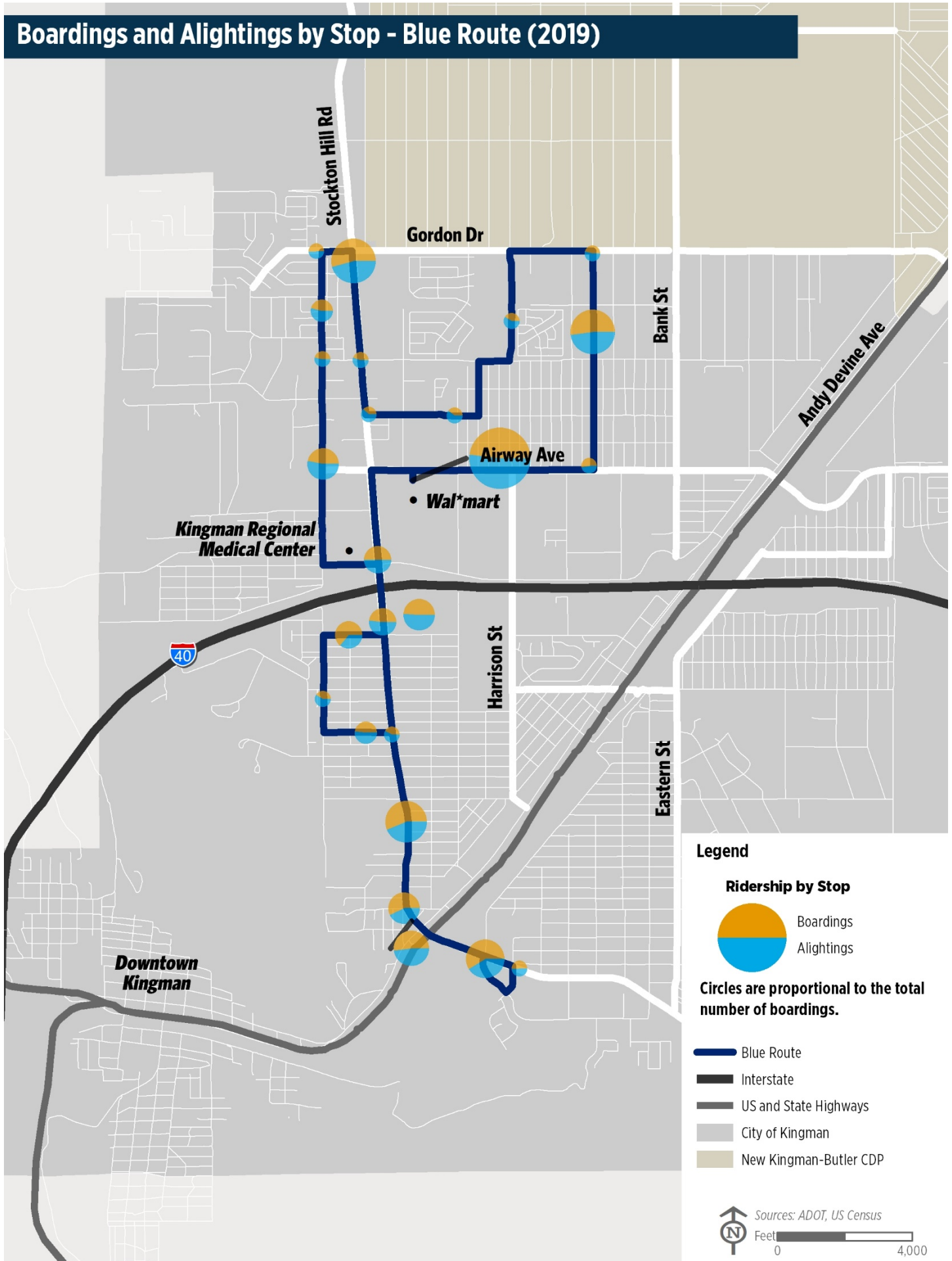
- Schedule coordinates with green and red routes
- Provides direct access to services and business along Stockton Hill Road

Challenges

- High cost to operate per mile
- Significant number of left turns, that may create safety issues.
- Stockton Hill Road and Hospital area can be congested.
- Low ridership on Western Avenue



# Boardings and Alightings by Stop - Blue Route (2019)



# Red Route

The Red Route travels in a one-way clockwise loop through Kingman along Airway Avenue, Eastern Avenue, Hualapai Mountain Avenue, Fairbrouns Boulevard, Harrison Street, and Beverly Avenue. The route begins and ends at the Walmart Transfer Center. Key destinations include the Bashas' shopping complex, Mohave County Library, the US Post Office, and the Mohave County Fairgrounds.

## ROUTE OVERVIEW

**13.0**  
ROUTE LENGTH  
(Miles)

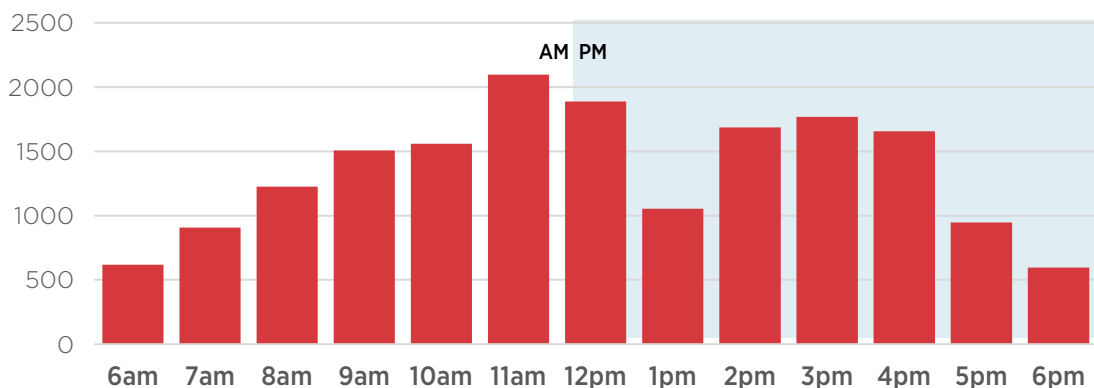
**2**  
NUMBER OF  
LEFT TURNS

**30**  
NUMBER OF  
STOPS

**12**  
NUMBER OF  
ROUTE TRIPS  
PER DAY

## ROUTE RIDERSHIP

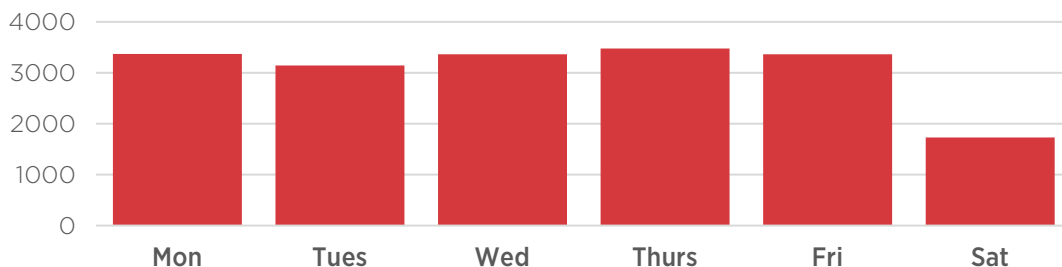
Total Boardings by Hour (2019)



**18,275**  
ANNUAL  
RIDERSHIP (2019)

**73**  
AVERAGE  
WEEKDAY  
BOARDINGS (2019)

Total Boardings by Day (2019)

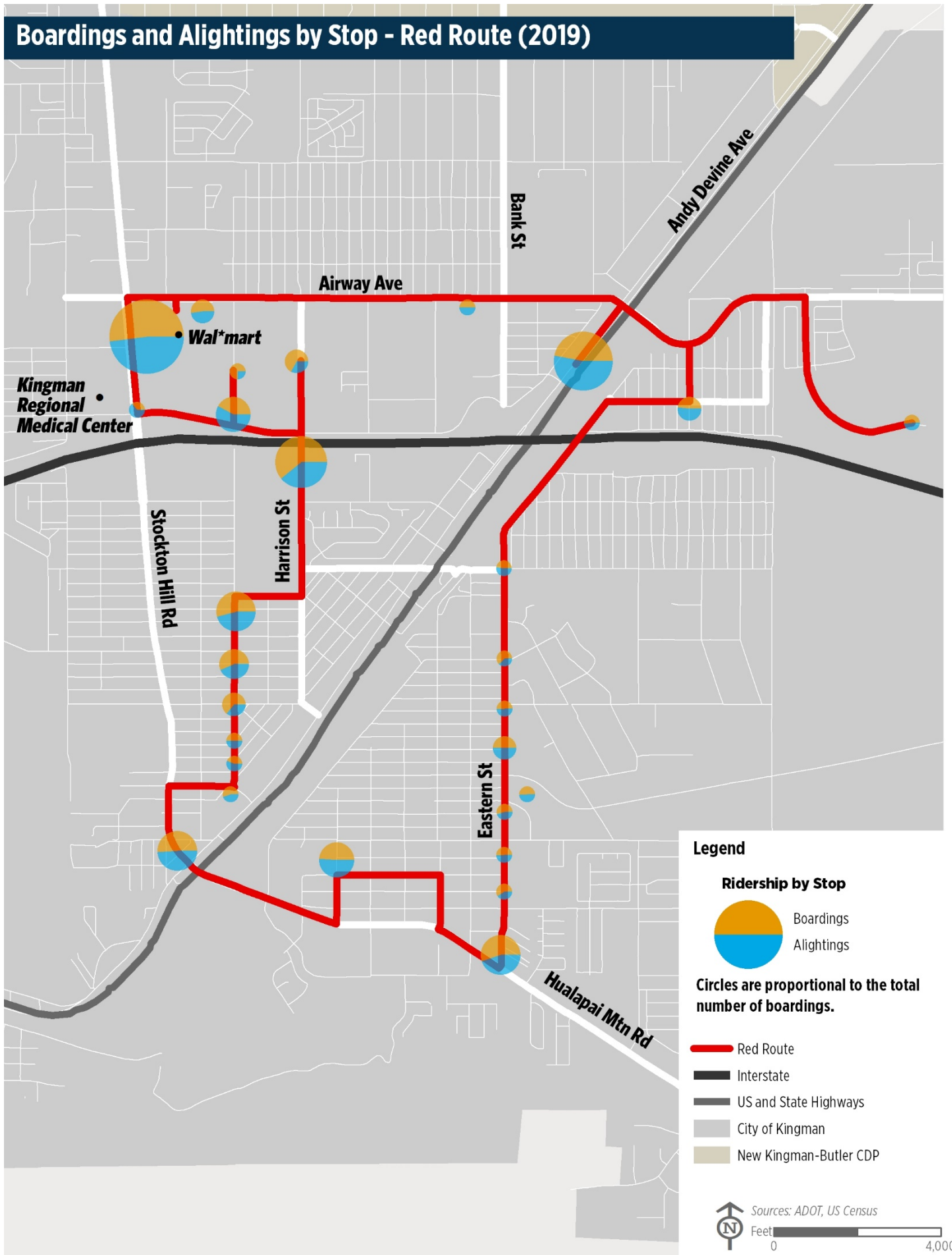


**36**  
AVERAGE  
SATURDAY  
BOARDINGS (2019)

## ROUTE ANALYSIS

- |                  |   |                   |   |
|------------------|---|-------------------|---|
| <b>Strengths</b> | <ul style="list-style-type: none"> <li>• Schedule coordinates with green and blue routes at Walgreens/Post Office</li> <li>• Connects residents in central Kingman to Walgreens and other routes</li> </ul> | <b>Challenges</b> | <ul style="list-style-type: none"> <li>• Highest cost to operate per rider</li> <li>• Overlaps with Blue Route on Hualapai Mtn Rd</li> <li>• High number of stops, with 2 stops per mile</li> </ul> |
|------------------|---|-------------------|---|

# Boardings and Alightings by Stop - Red Route (2019)



# Green Route

The Green Route travels in a one-way clockwise loop that travels along Airway Avenue, Andy Devine Avenue, and through Downtown Kingman. Weekday service runs from 6:00 am to 8:00 pm. The route begins and ends at the Walmart Transfer Center. Key destinations includes downtown Kingman, Bashas' shopping complex, Walgreens, the US Post Office, and the Mohave County Administration Building.

## ROUTE OVERVIEW

**15.0**  
ROUTE LENGTH  
(Miles)

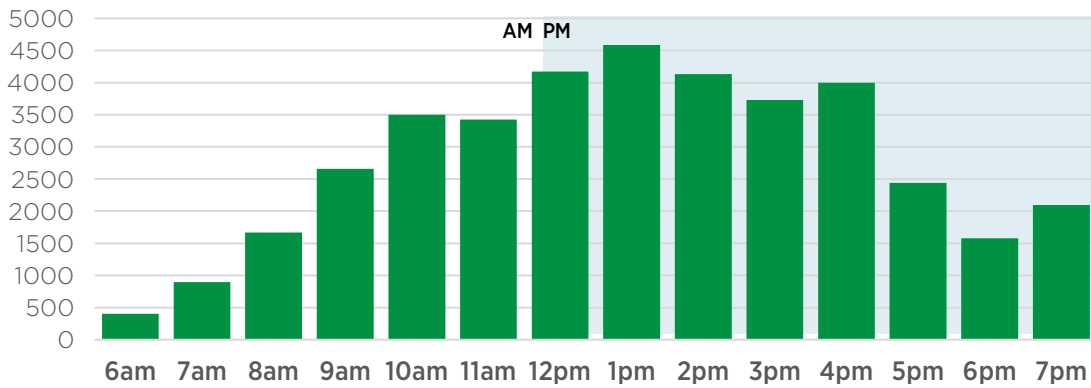
**2**  
NUMBER OF  
LEFT TURNS

**23**  
NUMBER OF  
STOPS

**14**  
NUMBER OF  
ROUTE TRIPS  
PER DAY

## ROUTE RIDERSHIP

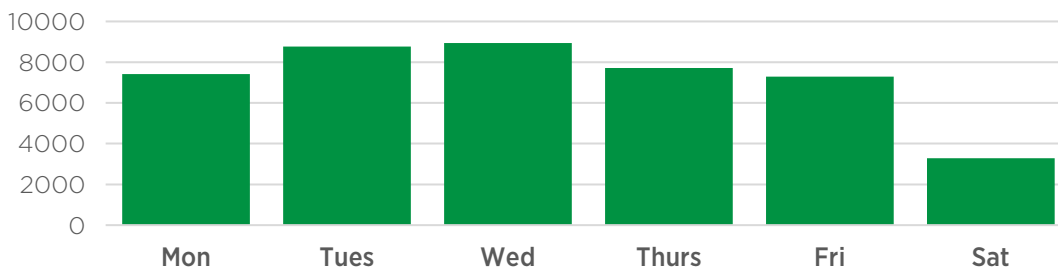
Total Boardings by Hour (2019)



**41,560**  
ANNUAL  
RIDERSHIP (2019)

**175**  
AVERAGE  
WEEKDAY  
BOARDINGS (2019)

Total Boardings by Day (2019)



**68**  
AVERAGE  
SATURDAY  
BOARDINGS (2019)

## ROUTE ANALYSIS

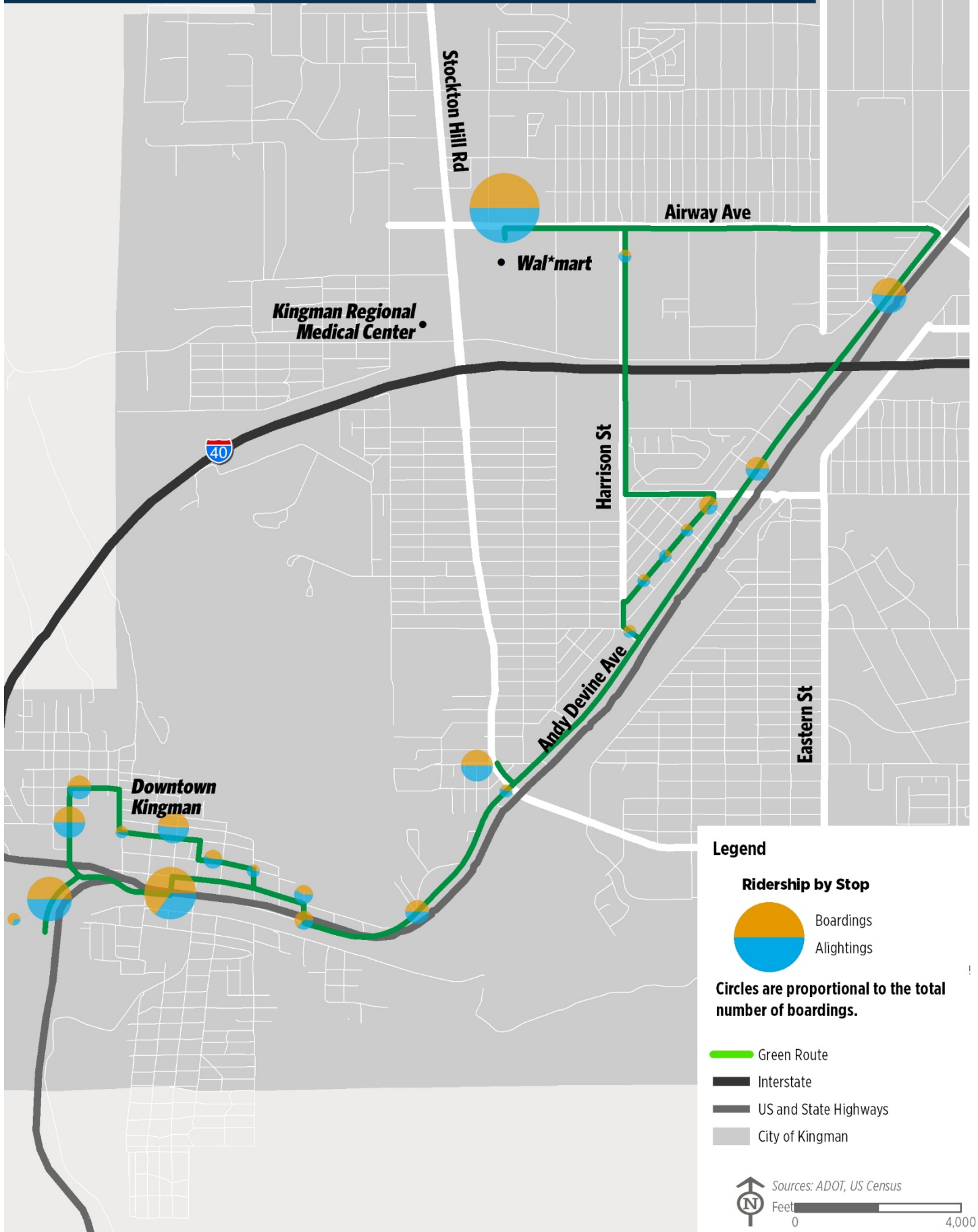
Strengths

- High ridership route that connects the transfer hub to downtown Kingman
- Schedule coordinates with red and blue routes at Walgreens/Post Office

Challenges

- Low ridership on Harrison Street and Ashfork Avenue
- Very high level of demand from High School students
- Service calls to the Mohave County jail can delay the system

# Boardings and Alightings by Stop - Green Route (2019)



# Yellow Route

The Yellow Route travels in a one-way counterclockwise loop through the New Kingman-Butler areas and Kingman along Airway Avenue, Thompson Avenue, Roosevelt Street, Stockton Hill Road, and Western Avenue. Weekday service runs from 6:00 am to 8:00 pm. The route begins and ends at the Walmart Transfer Center. Key destinations includes the Eagles Lodge, Mohave Mental Health, Food Bank, and Mohave Community College.

## ROUTE OVERVIEW

**15.0**  
ROUTE LENGTH  
(Miles)

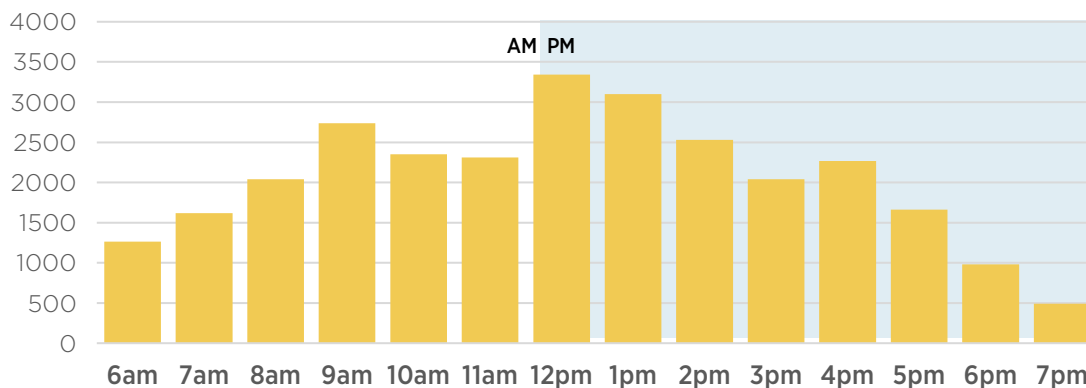
**6**  
NUMBER OF  
LEFT TURNS

**32**  
NUMBER OF  
STOPS

**14**  
NUMBER OF  
ROUTE TRIPS  
PER DAY

## ROUTE RIDERSHIP

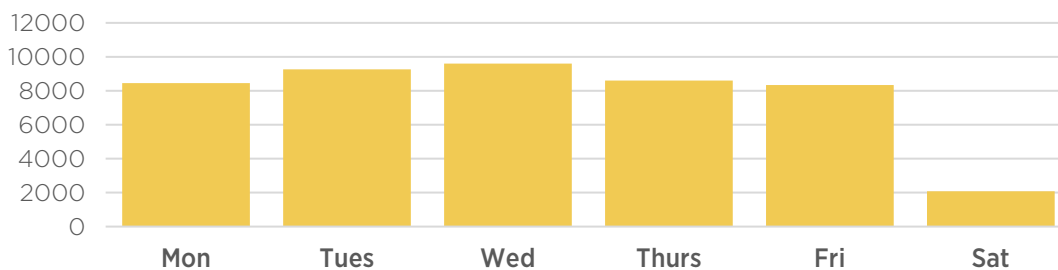
Total Boardings by Hour (2019)



**42,997**  
ANNUAL  
RIDERSHIP (2019)

**192**  
AVERAGE  
WEEKDAY  
BOARDINGS (2019)

Total Boardings by Day (2019)



**43**  
AVERAGE  
SATURDAY  
BOARDINGS (2019)

## ROUTE ANALYSIS

### Strengths

- High ridership route that connects area of high socioeconomic need to Walmart and other routes
- Only route to service Mohave Community College

### Challenges

- Significant number of deviations along route, often 2 per hour
- High number of stops, with 2.1 stops per mile
- Limited sidewalk connections to stops

# Boardings and Alightings by Stop - Yellow Route (2019)



# TRANSIT FLEET, EQUIPMENT, AND TECHNOLOGY

This section will outline the capital evaluation of KART’s current system, including the existing fleet, equipment, and technologies.

## CURRENT FLEET

KART currently maintains a fleet of 11 buses, with an 18% spare reserve. In their FY20-21 5311 Funding Application, KART requested funds for the replacement of two vehicles (which will be retained as spares) and the expansion of one vehicle addition to the fleet. The fleet expansion is intended to add a second bus to at least two routes (Yellow and Green) to reduce headway and ease congestion, with the goal of implementing these increased headways following the completion of this plan. Typically, there is one bus that services each route, however, as part of KART’s COVID-19 Pandemic Response, both the Yellow and Green Routes have one additional “shadow bus” operating to encourage social distancing aboard the transit system. It is the stated intention of KART to retain the Arboc buses in the fleet as spares or to increase offered services.

The fleet is stored at the City of Kingman’s Public Works Maintenance Facility, where the City of Kingman performs all regularly scheduled preventative maintenance services, as outlined in the Vehicle Maintenance Plan. Daily inspections report all deficiencies, which are corrected in-house when possible, including the repair and maintenance of engine components, the electrical system, ramps and wheelchair lifts, video equipment, and bike racks, as well as any cosmetic repairs. The KART Fleet is described further in **Table 3.3**.

**Table 3.3. Current KART Fleet**

Make	Model	Year	Fuel Type	Mileage	Seats	Wheelchair Positions	Lift	Condition	Retirement Year
Chevy	Cutaway	2008	Diesel	221,000	15	2	Lift	Poor	2020
Arboc	Spirit of Mobility	2010	Diesel	245,000	23	3	Ramp	Fair	2021
Arboc	Spirit of Mobility	2010	Gas	290,000	23	3	Ramp	Fair	2022
Arboc	Spirit of Mobility	2010	Gas	300,000	23	3	Ramp	Fair	2022
Arboc	Spirit of Mobility	2013	Gas	169,000	23	3	Ramp	Fair	2023
Arboc	Spirit of Freedom	2015	Gas	156,000	19	2	Ramp	Good	2025
Arboc	Spirit of Freedom	2016	Gas	107,000	18	2	Ramp	Good	2026
Arboc	Spirit of Freedom	2016	Gas	105,000	18	2	Ramp	Good	2026
Arboc	Spirit of Freedom	2016	Gas	94,000	18	2	Ramp	Good	2026
Arboc	Spirit of Freedom	2017	Gas	63,000	22	3	Ramp	Excellent	2027
Arboc	Spirit of Freedom	2018	Gas	58,000	22	3	Ramp	Excellent	2028



## CURRENT TRANSIT CENTER LOCATION

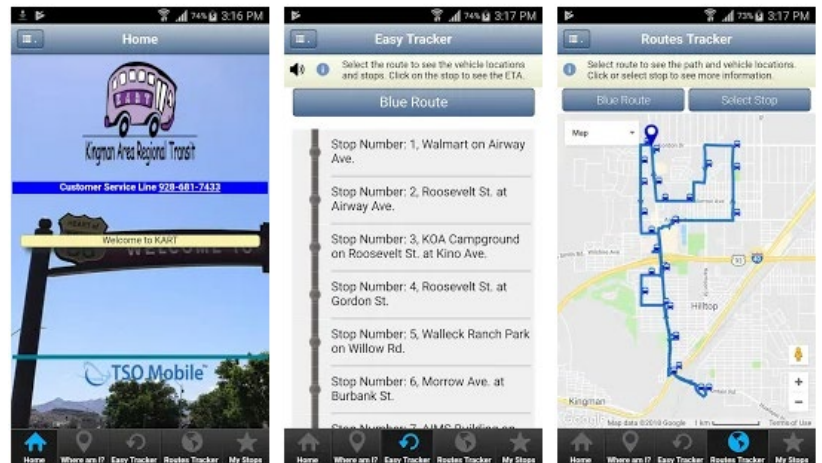
Located at 3396 Stockton Hill Road, the Walmart Supercenter currently serves as KART's transfer center. All four routes stop at this location, and there exists a bay for KART vehicles to park and board passengers. Currently, the KART system does not include any park and ride facilities. Future phases of this project will include a transit center site selection, which will potentially include a park and ride facility.



## CURRENT TRANSIT TECHNOLOGIES

Transit technologies encompass a wide range of functions and are constantly evolving to improve service. In its current system, KART operates:

- Automatic Passenger Counters (APCs), which provide crucial data that informs decision-making and resource allocation. With some computing, APC data can be used to provide crowding data, an information service that many transit providers are beginning to offer in response to the COVID-19 pandemic. In their funding request for FY21 - 22, KART included provisions for the monthly service fees associated with the APCs, as well as their camera system, mobile app, and GPS services. These technologies improve safety, rider convenience, and transit operations.
- Automatic Vehicle Locators (AVL), which provide KART with real-time coordinates of all active vehicles. KART currently displays this information via a smartphone application that allows riders to track real-time vehicle arrival information. TSO Mobile is the service providers for the KART application.
- TSO Mobile also provides KART with an interactive dispatching dashboard application that allows staff to track vehicles, monitor routes, manage work order, monitor passenger counters, and develop reports and analytics.



As the world has become increasingly interconnected, digital payment systems have emerged, improving the ease and speed of transactions in a variety of places. Electronic fare systems, whether integrated onto a card or using smart phone technology, can hasten the boarding and alighting process, which helps buses stay on schedule. Increasingly, digital payment systems are evolving to be 'contactless', meaning that the payment registration device can come within a few inches of the payment (whether card or phone) to complete the transaction. These contactless systems are an additional measure in successfully preventing the spread of germs but can also pose a challenge for people who may be under- or un-banked. Designing an electronic fare system that can accommodate cash, paper tickets, and digital payment forms is crucial in providing equitable service for all transit riders.

## SYSTEM PERFORMANCE

To understand the performance of KART’s current system, service data was reviewed and summarized for the most recent data year, 2019. Historical data accessed through the Federal Transit Administration’s National Transit Database (FTA NTD) was also analyzed, however, the data submitted to the NTD is typically aggregated for reporting, and therefore does not contain a per route breakdown. For this reason, 2019 data was used as a “typical” year to reverse calculate each metric by route for the years 2014 – 2018. As such, data trends can appear relatively uniform. **Table 3.4** describes total system operations, and **Table 3.5** delineates key operational metrics, such as annual service miles, hours, ridership, and revenue for 2019.

**Table 3.4. System Trips, Span, and Headways**

Route	Number of Trips	Headways	Span
Weekday	52	1 Hour	6 AM – 8 PM
Saturday	28	1 Hour	9 AM – 4 PM

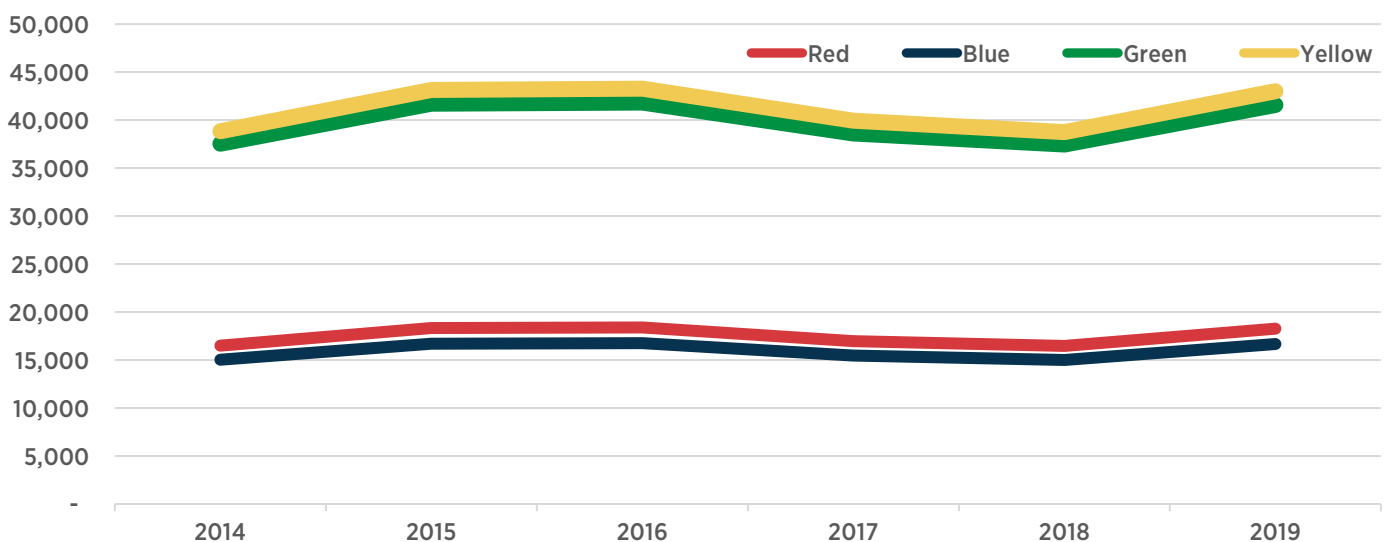
**Table 3.5. Annual Service Miles, Service Hours, Ridership, and Revenue by Route (2019)**

Route	Service Miles	Service Hours	Ridership	Revenue
Red	49,680	3,350	18,275	\$29,307
Blue	43,200	3,350	16,650	\$26,701
Green	54,180	4,850	41,560	\$66,647
Yellow	59,640	4,850	42,997	\$68,952

## HISTORICAL ANNUAL RIDERSHIP

**Figure 3.3** shows total annual ridership between 2014 – 2019, by route. The Yellow Route is consistently KART’s most populated route, with similar ridership levels on the Green Route. The Red and Blue Routes mirror one another in their annual ridership and are consistently lower than that of the Yellow and Green Routes.

**Figure 3.3. Total Annual Boardings by Route (FY 2014 – FY 2019)**



## RIDERSHIP BY ROUTE

Figure 3.4 displays the percentages of total boardings by route on weekdays, while Figure 3.5 shows the percent of total boardings by route for Saturday service.

Figure 3.4. Percent of Total Boardings by Route (Weekday 2019)

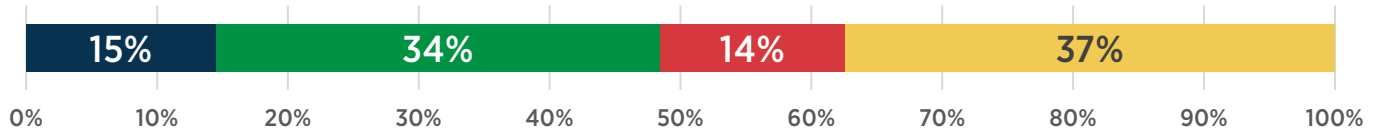


Figure 3.5. Percent of Total Boardings by Route (Saturday 2019)

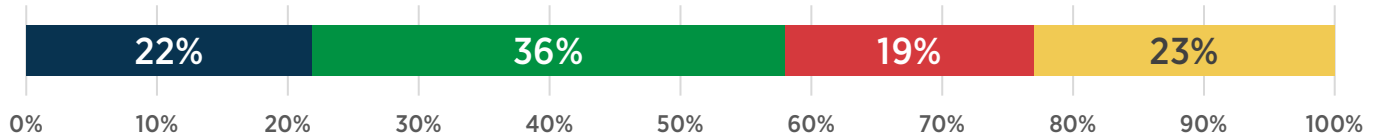


Figure 3.6 depicts the riders per service mile, by route between 2014 – 2019. With higher ridership in 2015, a clear increase, which then levels off, is present. KART has maintained relatively stable ridership between 2016 – 2019. Figure 3.7 shows the riders per service hour, which compares annual ridership with the annual hours each route was in service, by year.

Figure 3.6. Riders per Mile

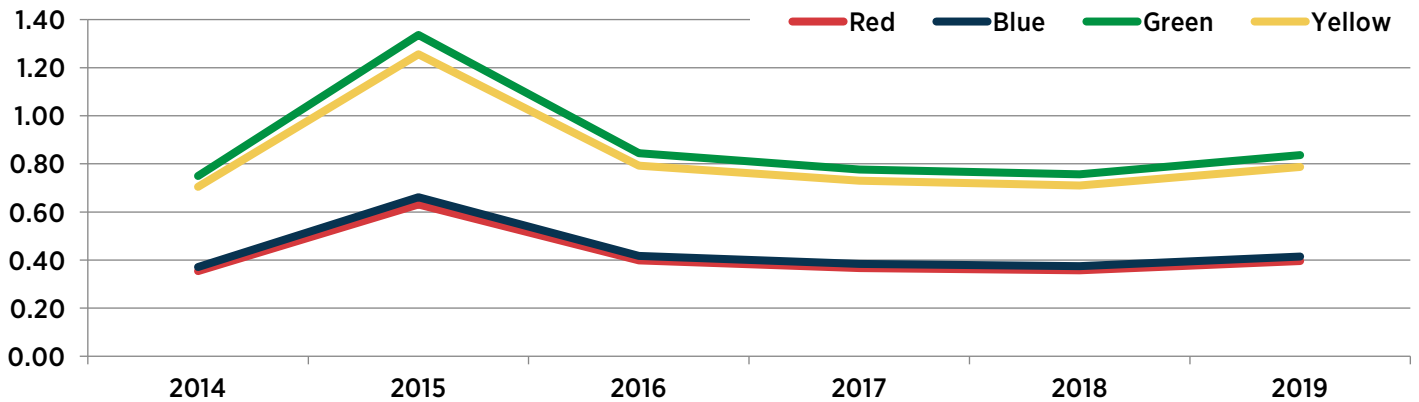
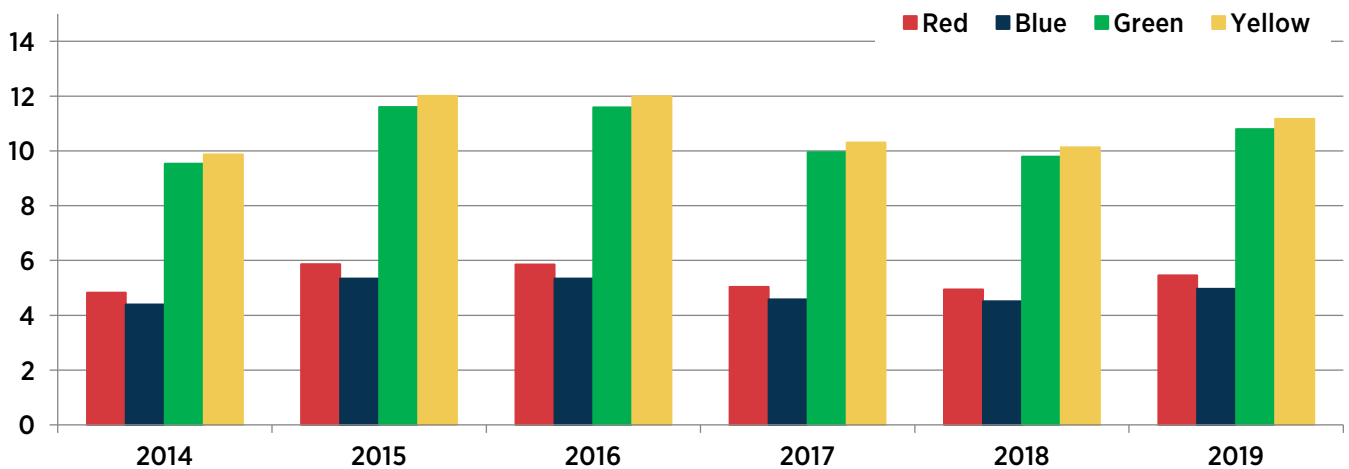


Figure 3.7. Total Riders per Hour



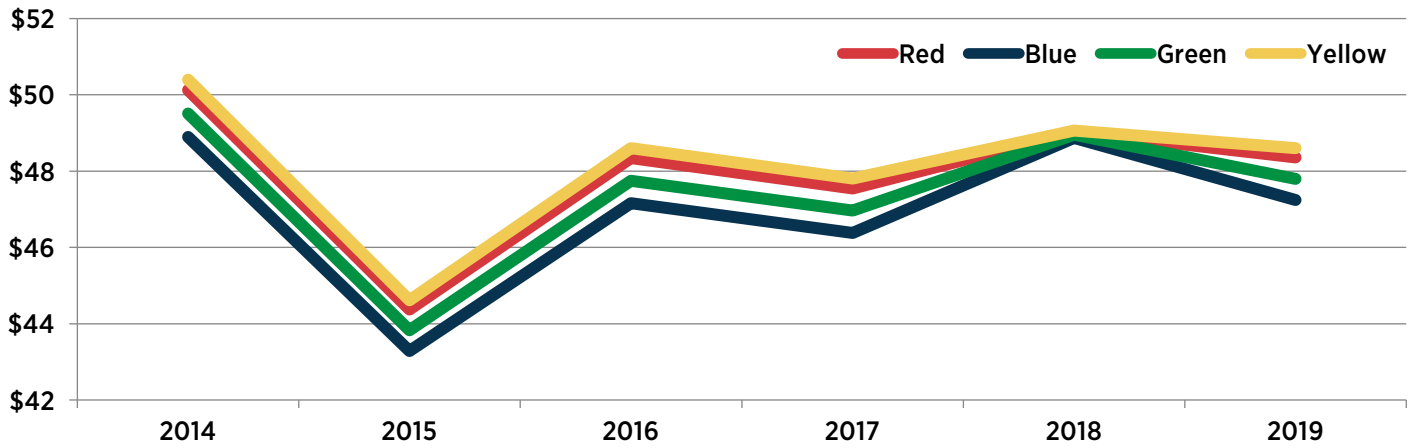
# FINANCIAL OVERVIEW

Kingman Area Regional Transit is housed in the City of Kingman’s Public Works Department, and annually included in the City’s budgeting process by means of the General Fund Account. The City of Kingman funds serve as the local match for the Federal Section 5311 Rural Transit Grant Program funds that KART has received since its inception in 2003. KART’s Yellow Route is the busiest of its current services and operates primarily in the unincorporated area of Mohave County known as New Kingman-Butler. Despite its popularity among residents, Mohave County does not provide any funding for KART’s service offerings. **Table 3.6** delineates KART’s costs by route for 2019, while **Figures 3.8 – 3.10** display these statistics graphically.

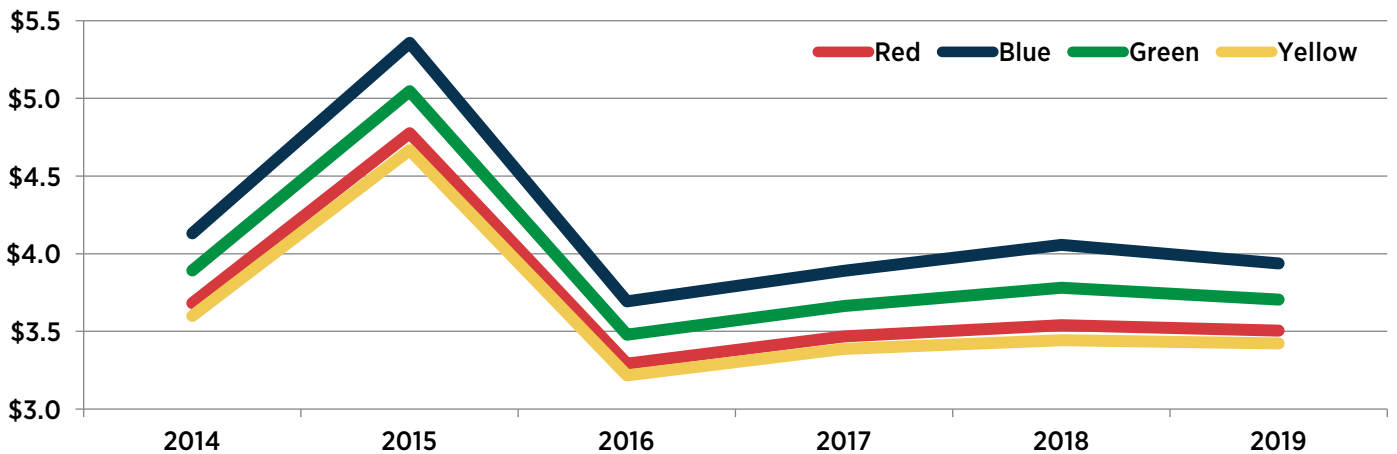
**Table 3.6. Costs Summary by Route (2019)**

Route	Cost per Service Hour	Cost per Service Mile	Cost per Ride
Red	\$48.36	\$3.50	\$8.86
Blue	\$47.24	\$3.94	\$9.51
Green	\$47.80	\$3.71	\$4.43
Yellow	\$48.60	\$3.42	\$4.35
<b>System Total</b>	<b>\$48.67</b>	<b>\$3.40</b>	<b>\$6.35</b>

**Figure 3.8. Cost per Service Hour**

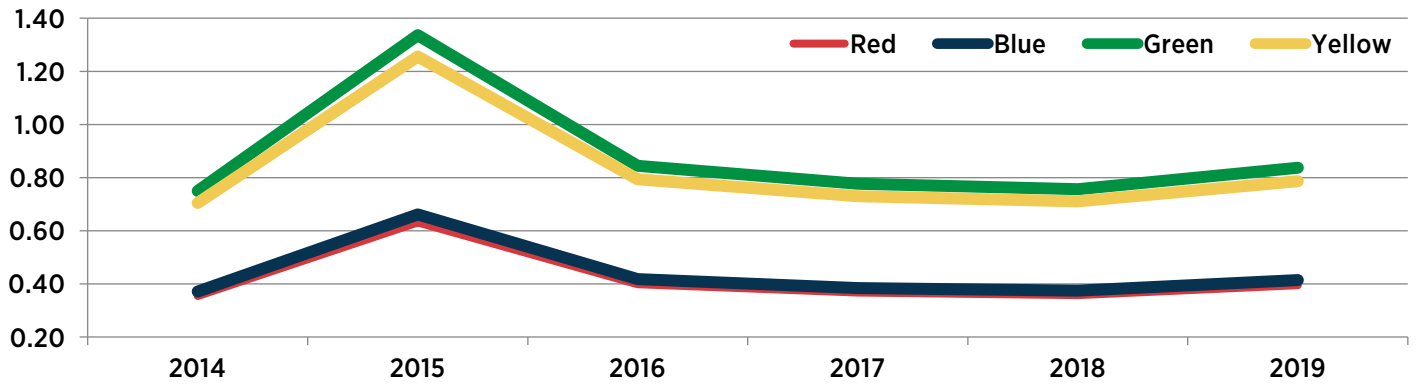


**Figure 3.9. Cost per Service Mile**





**Figure 3.10. Cost per Ride**



## COST ALLOCATIONS

**Table 3.7** shows the annual cost allocations for KART by expense type. As shown for 2019, administration costs were highest, which includes budget items such as computer equipment, office supplies, software, and some salaries. Operations, the second highest category, includes budget items such as fuel, driver salaries, and some maintenance costs. In 2019, vehicle equipment purchases comprised most of the capital costs.

**Table 3.7. Cost Allocations by Expense Type**

Cost Category	2019 Actual Cost
Administration	\$370,790
Operations	\$317,820
Capital	\$123,596
Planning/Maintenance	\$70,626
<b>System Total</b>	<b>\$882,835</b>

These costs can be further analyzed by route to understand the effect of each route on the overall system. As the Yellow Route is the most heavily utilized service, it requires the most administration effort, and therefore returns the highest administration costs. This principle also holds true for mileage costs, as the Yellow Route is KART’s longest service. **Table 3.8** summarizes these costs by route.

**Table 3.8. Costs by Route**

Route	Total Cost	Mileage Costs	Administration Cost
Red	\$161,990	\$14,628	\$79,111
Blue	\$158,260	\$12,720	\$77,290
Green	\$184,024	\$15,715	\$89,872
Yellow	\$187,120	\$17,299	\$91,384
<b>System Total</b>	<b>\$759,238</b>	<b>\$70,627</b>	<b>\$370,791</b>

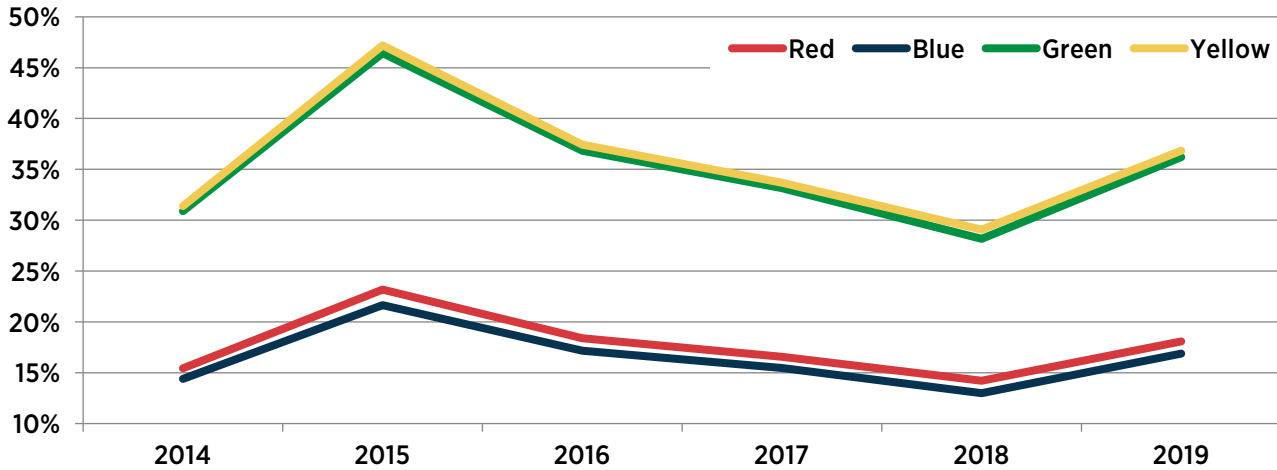
## REVENUE

In addition to the local and federal funds that KART receives to operate its system, fare revenues contribute an average of 23% towards KART’s annual budget. **Table 3.10** delineates fare revenues and farebox recovery by route for 2019. The farebox recovery ratio is calculated by dividing fare revenue by total costs per route. **Figure 3.9** displays the historic farebox recovery ratio by route between 2014 - 2019.

**Table 3.10. Fare Revenue and Farebox Recovery Ratio by Route (2019)**

Route	Fare Revenue	Farebox Recovery Ratio
Red	\$29,307	18%
Blue	\$26,701	17%
Green	\$66,647	36%
Yellow	\$68,952	37%
<b>System Total</b>	<b>\$191,606</b>	<b>25%</b>

**Figure 3.9. Farebox Recovery Ratio**



# PREVIOUS RIDER SURVEY RESULTS

This section summarizes the most recent surveys conducted by KART.

## KART PASSENGER SURVEY (2017)

In 2017, KART conducted a passenger survey to understand the needs of riders. In total, 200 riders completed the survey. Key findings from this survey include:

- 29.5% of respondents were on the yellow bus; 29.5% of respondents were on the red bus; and 27.5% of respondents were on the blue bus.
- 42% of respondents are people with a disability, and 12% of these riders use a mobility device, such as a walker, cane, wheelchair, or scooter.
- 11% requested Sunday service and 4% requested service to the airport
- 38% of riders are ages 50 - 64, 20% of riders are ages 35 - 49, and 12% of riders are aged 80+

Additionally, **Figure 3.10** displays the marked origin and destination types that KART riders frequent. These locations are aggregated to include both origin and destination. **Figure 3.10** depicts the mode choice that KART riders would use if KART services were not available. Approximately 15% of riders would not make their trip if KART services were not provided.

Figure 3.10. Origin & Destination

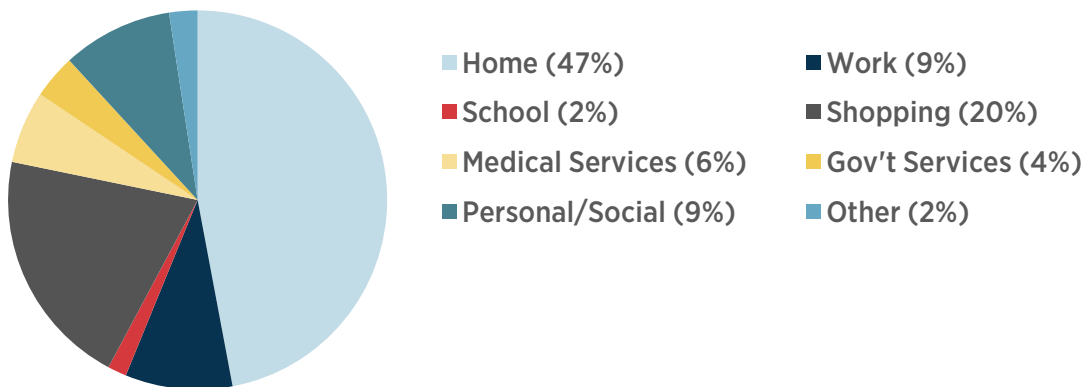
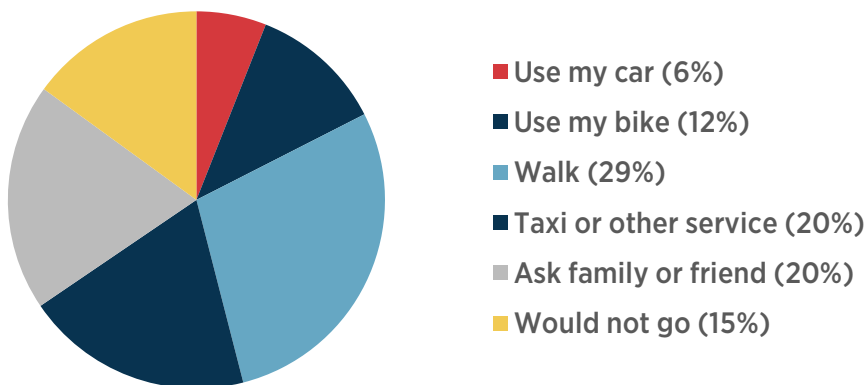


Figure 3.11. Alternate Mode for Trip without KART





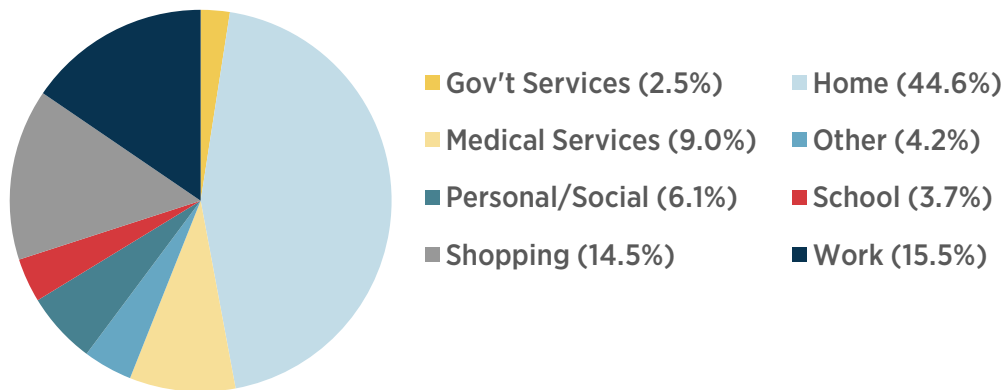
## KART PASSENGER SURVEY (2016)

In 2016, KART conducted a passenger survey to understand the needs of riders. In total, 469 riders completed the survey. Key findings from this survey include:

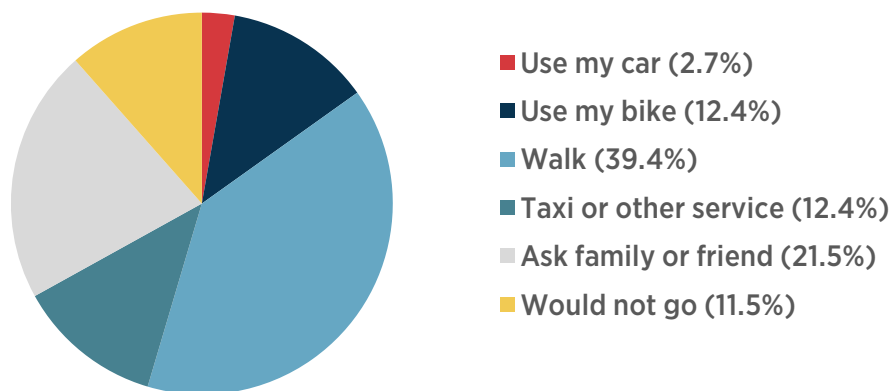
- 47.2% of respondents were on the yellow bus; 20.9 of respondents were on the green bus; and 17.7% of respondents were on the red bus.
- 37% of respondents are people with a disability, and 42% of these riders use a mobility device, such as a walker, cane, wheelchair, or scooter.
- 11% requested Sunday service and 4% requested service to the airport
- 27% of riders are ages 50 – 64, 25% of riders are ages 35 – 49, 22% of riders are ages 25 – 34, and 12% of riders are aged 80+

Additionally, **Figure 3.12** displays the marked origin and destination types that KART riders frequent. These locations are aggregated to include both origin and destination. **Figure 3.13** depicts the mode choice that KART riders would use if KART services were not available. Approximately 15% of riders would not make their trip if KART services were not provided.

**Figure 3.12. Origin & Destination**



**Figure 3.13. Alternate Mode for Trip without KART**



## AIRPORT / INDUSTRIAL AREA SURVEY (2018)

In 2018, KART, the Kingman Airport Authority, and the Kingman and Mohave Manufacturing Association (KAMMA) conducted a joint survey of airport/industrial workers regarding the possibility of providing transportation to employees at the industrial park. The survey was available online via the platform Survey Monkey, in addition to printed surveys. There are approximately 70 businesses and 2,000 employees at the park, but only 135 responses were received. Of these 135 respondents, 55% (74 respondents) stated that they would use public transportation if available. **Figure 3.14** depicts employees' willingness to ride transit, which was consistently split between those who would ride the bus if KART provided a route connecting to the airport (55%) and those who would not (45%).

**Figure 3.14. Willingness to Ride Transit**

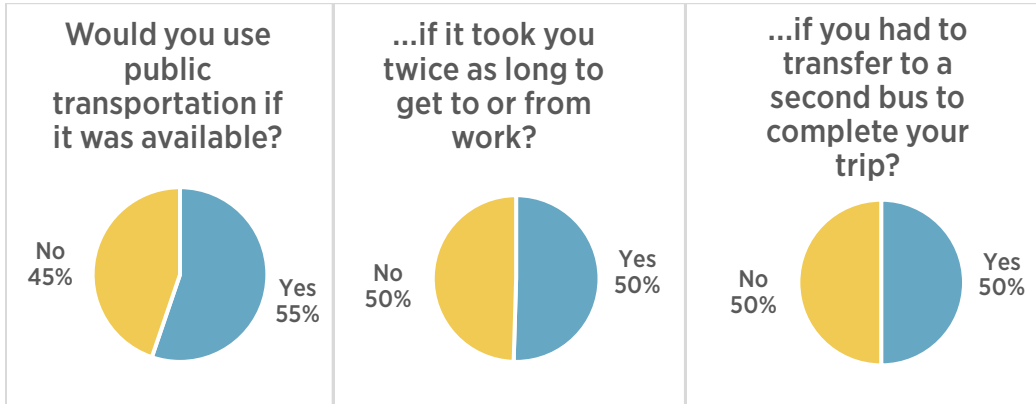
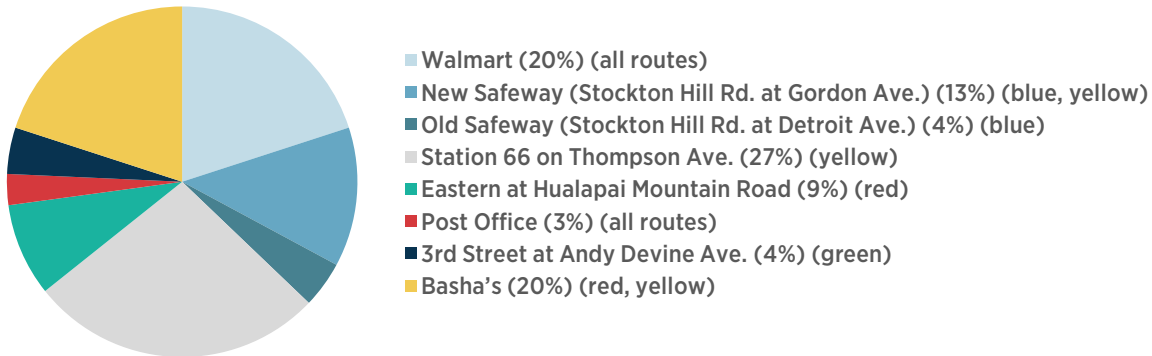
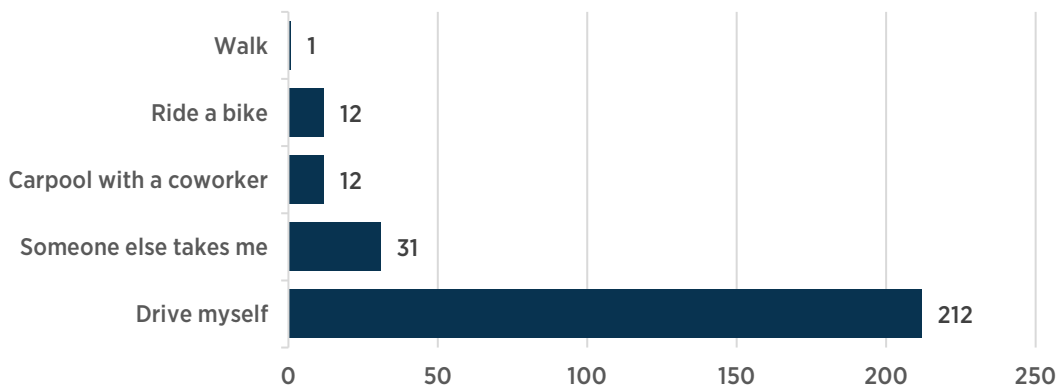


Figure 3.15 displays the locations that Airport/Industrial employees would prefer stops for KART service to connect with, while **Figure 3.16** displays their current commute modes. 96% of airport/industrial workers rely on a car to commute to work.

**Figure 3.15. Most Likely Pickup/Drop-off Locations**



**Figure 3.12. Current Transportation To/From Work**



## OTHER SERVICE PROVIDERS

In addition to the services offered by KART, in the region that Kingman is a part of there are numerous transportation options. The following sections will detail these providers, their services, and their interactions with KART.

### HUALAPAI TRANSIT

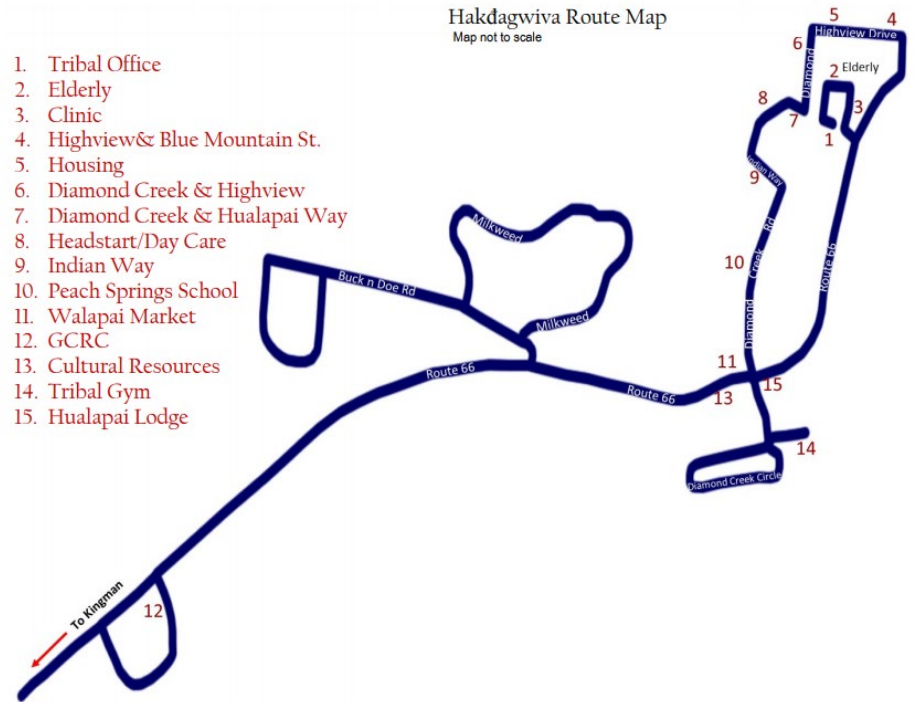
KART services connect with Hualapai Transit at the Walmart Transfer Center in Kingman. Since its inception in 2016, Hualapai Transit has provided public transportation services to rural communities along route 66 Northeast of Kingman to Peach Springs. Communities include Valley Vista, Hackberry, Valentine, Truxton and Peach Springs. Hualapai Transit offers the following:

- **Kingman Ya:m Jo'h:** fixed route services that connects Peach Springs to Kingman.
- **Kingman Tripper Route:** fixed route services that operates during the school year Monday to Thursday
- **Caverns Tripper Route:** fixed route services that operates during the school year to connect Peach Springs with the Grand Canyon Caverns
- **Hakdagwiva:** free circulator within Peach Springs that connects.
- **Saturday Shopping Service to Kingman:** Bus will start circulating from the Tribal Office to pick up shoppers at 9 a.m. The bus will return to Peach Springs from Walmart at 2 p.m.

These services operate Monday through Friday, with one daily AM and PM run. On “special occasions” KART and Hualapai Transit coordinate to offer fare reciprocity between the Kingman Route and all KART Routes.

### BULLHEAD AREA TRANSIT

Bullhead City, Kingman’s neighbor to the east via Route 68, operates the Bullhead Area Transit System (BATS), with four fixed route services. Currently, there is no connectivity via transfers available between KART and BATS.



## OTHER 5310 AND PRIVATE SERVICE PROVIDERS

In addition to the adjacent providers located near Kingman, a range of private and public-private providers also operate in the greater Kingman area. **Table 3.11** provides an overview of these service providers.

**Table 3.11. Other Service Providers**

Service Name	Description	Service Area
Hualapai Tribe Health Department	On-Demand Shuttle for Elderly People	Arizona, Albuquerque, or Las Vegas from Peach Springs
New Horizons Disability Empowerment Center	ADA-Accessible Shuttle	Mohave County
Commuter Services	Airport Shuttle	Lake Havasu City, Laughlin, Kingman, Las Vegas McCarran Airport
TriState Shuttle	Airport Shuttle	To and from the Las Vegas McCarran Airport
Day and Night Shuttle	On-Demand Shuttle	Mohave and La Paz Counties
Yellow Cab	Taxi Service	To/from Kingman and neighboring cities and attractions
Kingman Cab	Taxi Service	Las Vegas McCarran Airport, Flagstaff, and Phoenix
Tufesa	Regional Bus Travel	Arizona, Utah, and California
Greyhound	National Bus Travel	Direct Line from Kingman to Los Angeles, Las Vegas, and Flagstaff
Amtrak	National Train Travel	Direct Line from Kingman to Los Angeles, Las Vegas, and Flagstaff

# 4. PEER AGENCY REVIEW

The following section outlines communities from around Arizona and the southwestern US that demonstrate similarities to Kingman, in terms of their populations, land use, and transit service, as indicated by the Rural Integrated National Transit Database. These cities were selected for review to understand the success of their current or planned transit service, and how these best practices can be applied to KART.

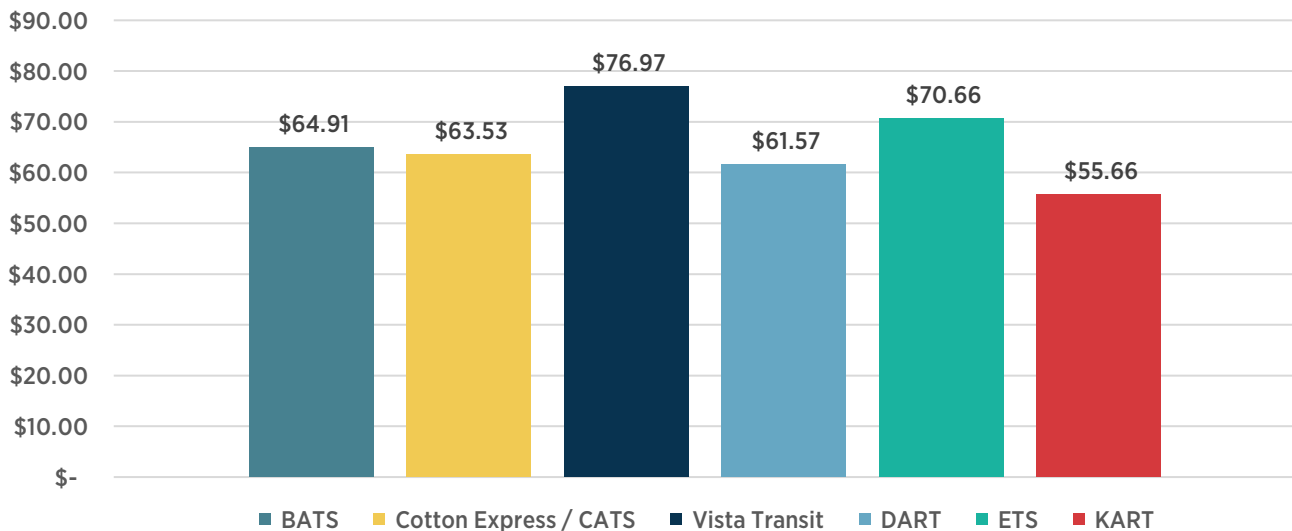
## PEER COMPARISON

Table 4.1 summarizes the key system performance indicators of each peer city/transit service in 2018, while Figure 4.1 illustrates the Total Cost per Hour that each transit system operated under in 2018. This metric demonstrates that KART is operating efficiently when compared to its peers.

**Table 4.1. NTD Profile Comparison (2018)**

Provider	Annual Service Miles	Annual Service Hours	Annual Ridership	Annual Operating Expense	Annual Revenue
Bullhead Area Transit System (AZ)	291,983	18,596	171,034	\$1,201,015	\$161,448
Cotton Express / Central Arizona Regional Transit (AZ)	203,487	14,886	36,407	\$936,143	\$39,054
Vista Transit (AZ)	171,030	12,485	140,960	\$1,065,063	\$105,543
Dinuba Area Regional Transit (CA)	199,587	14,955	36,165	\$920,738	\$75,454
Eureka Transit Service (CA)	158,118	14,353	204,562	\$1,014,218	\$226,632
KART	190,323	14,312	107,676	\$796,620	\$151,681

**Figure 4.1. Peer Comparison Cost per Hour (2018)**



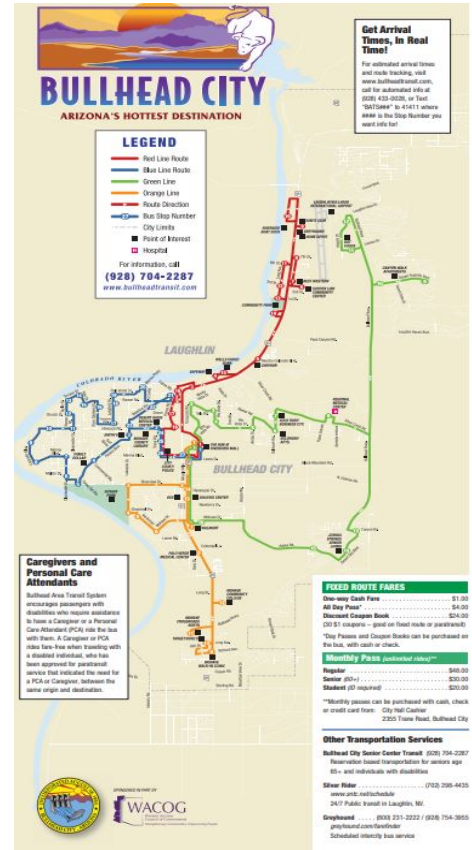
## BULLHEAD CITY, AZ

The Bullhead Area Transit System (BATS) provides four fixed route bus service within the municipal boundaries of Bullhead City, AZ. With hourly headways servicing 72 bus stops between Monday and Friday, with limited Saturday service, BATS provides necessary connections for Bullhead residents.

- Regular One-Way Fare: \$1.00
- Monthly Pass: \$48
- Service: Four local fixed route services, dial-a-ride serve
- Fleet: Ten fixed route buses, three demand responsive buses

Key takeaways from BATS include:

- Wait-free transfers at The Hub @ Riverview Mall between all four services
- Connects with parks, library, medical centers, shopping centers, apartment complexes, Mohave Community College, and the Laughlin/Bullhead International Airport
- No routes are bi-directional for their entirety
- Some route redundancy achieved in core downtown area



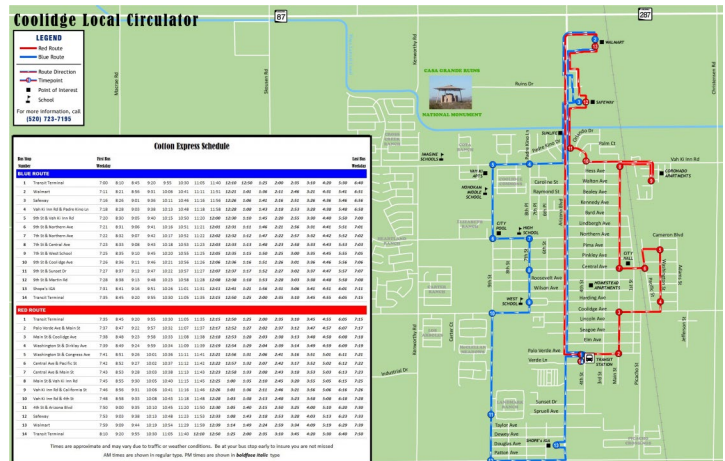
## COOLIDGE, AZ

The City of Coolidge Transit Department operates the Cotton Express (local Coolidge bus service) and CART (Central Arizona Regional Transit - regional bus service). The Cotton Express bus system provides Deviated Fixed Route bus service and On Demand service throughout Coolidge Monday through Friday. The CART bus system provides regional route services to neighboring communities for employment, medical, and personal trips.

- Regular One-Way Fare: Cotton Express: \$1.00 (\$0.50 more for deviated route); CART: \$2.00
- Monthly Pass: Cotton Express: \$45.00; CART: \$60.00
- Service: Cotton Express: two deviated flex routes; CART: two fixed routes and AM/PM commuter routes
- Fleet: Ten fixed route buses, one demand responsive bus

Key takeaways from CART include:

- Route operates bi-directionally (eastbound and westbound)
- Route services commuter hours (6:30 AM to 8:30 PM)



- Full trip length is 2.5 hours
- Connect many important health, education, and employment destinations
- Key takeaways from the Cottonwood Express include:
- Route redundancy achieved along Arizona Boulevard, bi-directionally
- Connects schools, apartment complexes, grocery stores, and public parks
- Serves with approximately ~40 headways

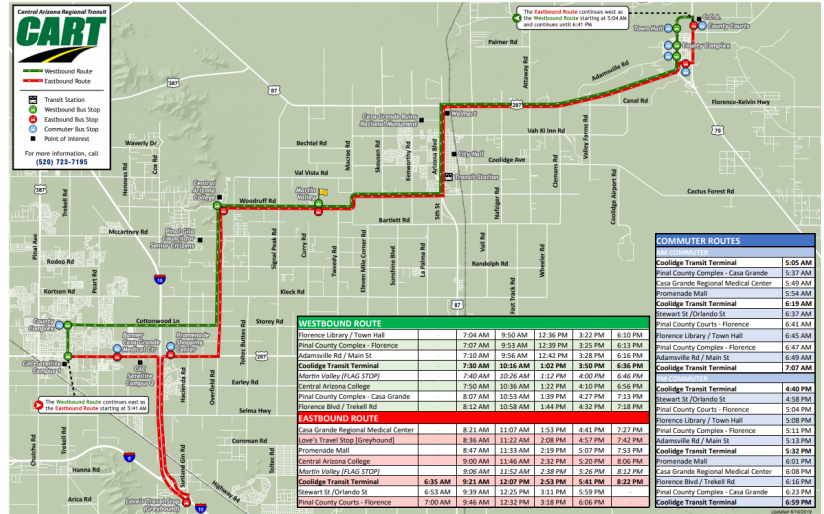
## SIERRA VISTA, AZ

With a population of 45,000, Sierra Vista is the commercial, education, and medical hub of southeast Arizona. Originally established in 1994, Vista Transit was initially operated by Catholic Community Services on a passenger service request basis. Today, Vista Transit operates throughout Sierra Vista and Fort Huachuca with five local bus routes.

- Service Area: 152 mi<sup>2</sup>
- Service Area Population: 45,166
- Regular One-Way Fare: \$1.25
- Monthly Pass: \$40.00
- Service: Five fixed routes; demand responsive
- Fleet: Five fixed route buses, two demand responsive buses

Key takeaways from the Vista Transit include:

- Route redundancy achieved along Martin Luther King Jr Parkway, uni-directionally
- Red route achieves redundancy and provides connectivity between the Orange and Blue Routes, while the Green Route achieves some redundancy with the Orange Route
- Hourly headways for four routes that all terminate at the Transit center



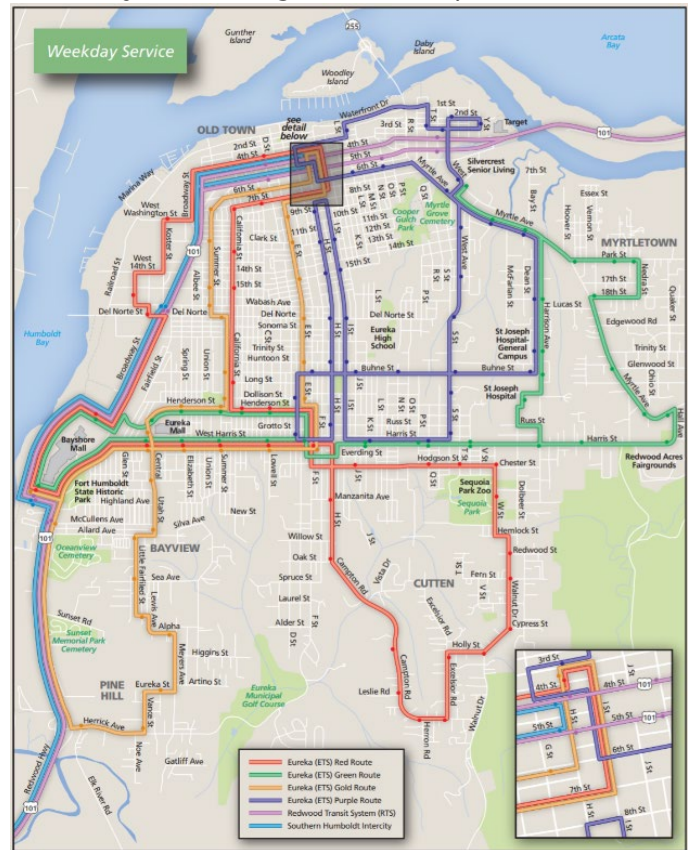
## DINUBA, CA

Dinuba Area Regional Transit (DART) provides four fixed route bus service routes within the municipal boundaries of Dinuba, CA. With half-hour headways servicing 39 bus stops between Monday and Friday, with one-hour headways for Saturday service, DART provides necessary connections for Dinuba residents.

- Regular One-Way Fare: \$1.00
  - Dinuba Connection: \$1.50
  - Jolly Trolley Circulator: Free
- Service: Four local fixed route services, dial-a-ride service
- Fleet: Four fixed route buses, two demand responsive buses

Key takeaways from DART include:

- Wait-free transfers at Dinuba Transit Center between all four services
  - Connections to regional transit service, Tulare County Area Transit (TCaT)
- Connects with parks, library, medical centers, shopping centers, apartment complexes, Reedley College, local schools, and the DMV
- No routes are bi-directional for their entirety
- Some route redundancy achieved in core downtown area





## EUREKA, CA

The Eureka Transit Service (ETS) provides five fixed route bus service routes within the municipal boundaries of Eureka, CA. With one-hour headways servicing 128 bus stops between Monday and Friday and limited Saturday service, ETS provides necessary north connections for Dinuba residents.

- Regular One-Way Fare: \$1.70
- Monthly Pass: \$48.00
- Service: Five local fixed route services, dial-a-ride service (for people with disabilities only)
  - Rainbow Route Saturdays only
- Fleet: Four fixed route buses

Key takeaways from ETS include:

- Wait-free transfers at H & 3rd between four of the five lines
  - Connections to regional transit service, Redwood Transit Service (RTS) and Southern Humboldt Intercity
- Connects with parks, library, medical centers, shopping centers, apartment complexes, senior centers, and local schools
- No routes are bi-directional for their entirety
- Some route redundancy achieved in core downtown area

