CAMPO

CARSON AREA METROPOLITAN PLANNING ORGANIZATION

Using the latest data, this report summarizes the who, what, where, and how in transportation within the CAMPO region.

2025

Transportation Network Monitoring Report

Contents

Chapter 1 Introduction

The Carson Area Metropolitan Planning Organization (CAMPO) is a federally recognized metropolitan planning organization (MPO), formed on February 26, 2003. CAMPO is responsible for carrying out the metropolitan transportation planning process for the Carson City Metropolitan Planning Area (MPA). The Carson Area MPA encompasses nearly all of Carson City (except the area within the Lake Tahoe Basin) and portions of northern Douglas County and western Lyon County. The geographic scope of this report is depicted in Figure 1.1. Additional information about CAMPO is available at: www.CarsonAreaMPO.com.

Figure 1.1: CAMPO Metropolitan Planning Area (MPA) Boundary
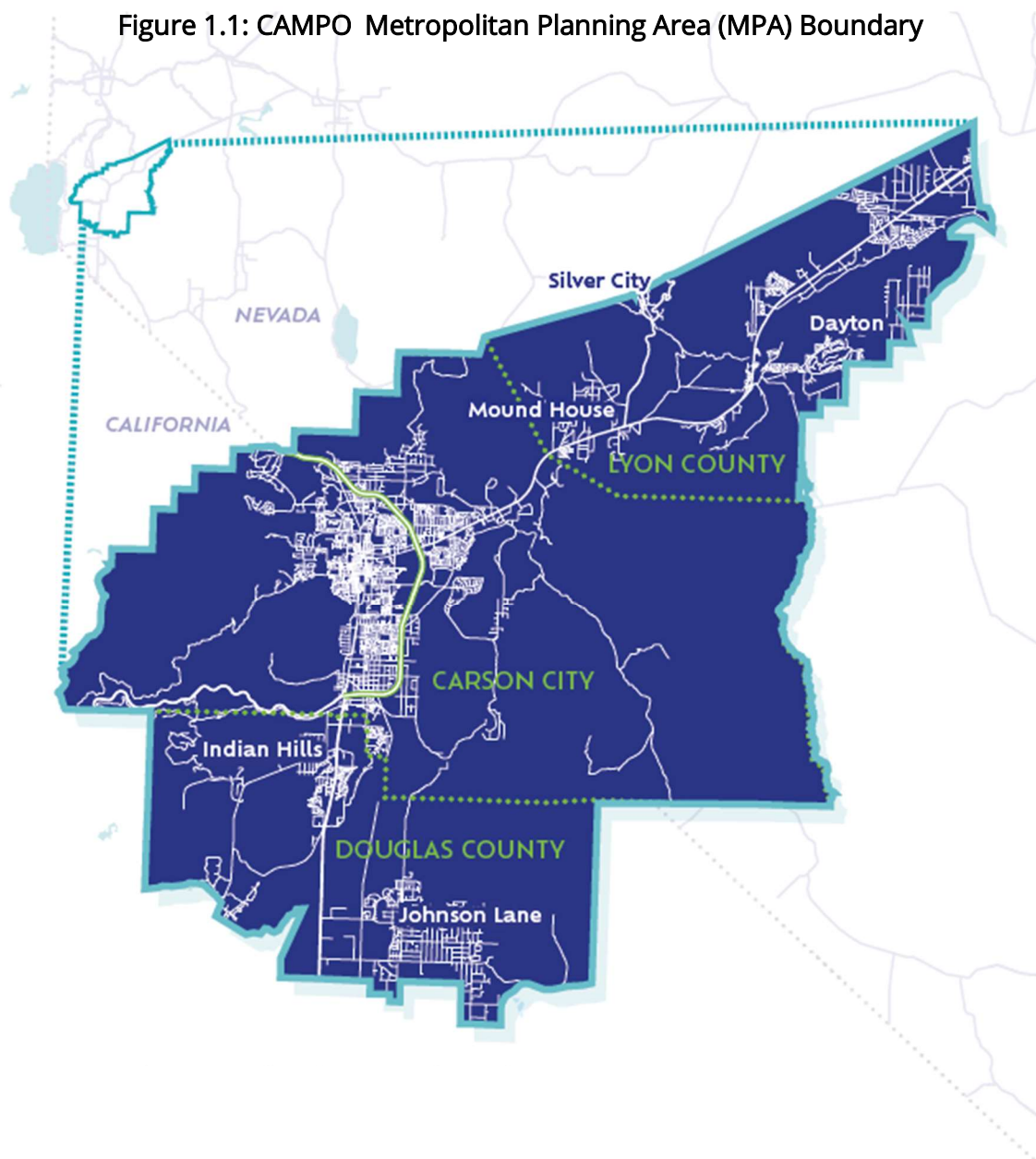
1.1 Performance-Based Planning

Performance-based planning and programming apply performance management principles and performance measures to transportation system policy and investment decisions. Performance-based planning and programming is a system-level, data-driven process to identify strategies and investment areas. Performance-based planning helps define key goals and objectives and analyze and evaluate strategies for meeting these goals.

In November 2021, the federal Infrastructure Investment and Jobs Act (IIJA) was signed into law. This legislation carries forward and expands the policies, programs, performance measures, and initiatives established by preceding legislation (including ISTEA, TEA-21, SAFETEA-LU, MAP-21 and the FAST Act). This legislation requires MPOs to track and use certain performance measures and establish performance targets to inform decision-making for investment into the multi-modal transportation system.

SAFETY
Increase the safety of the transportation system for all users.

PRESERVATION
Maintain our region's existing transportation infrastructure.

MOBILITY
Ensure efficient and reliable movement of people and goods across modes by providing access to essential destinations and services.

QUALITY OF LIFE
Invest in a transportation system that supports the health, livability, and character of the region.

PROSPERITY
Support economic vitality and growth through strategic transportation investments.

ADAPTABILITY
Invest strategically in transportation trends and technologies that support the needs of the region.

This 2025 Transportation Network Monitoring Report is federally funded through CAMPO's Unified Planning Work Program and presents transportation network information derived from transportation data collected within CAMPO. The information is presented to show regional trends and changes that influence the transportation system. This document presents information on who uses the transportation system (socio-demographic data), what residents travel on (Roadway Condition, Local Roadway Pavement Condition), where they travel (trip origins, destinations), and how they travel (transit, walking, biking, driving). CAMPO staff continue to monitor socioeconomic factors, mobility, and safety needs of the region and strive to increase consistency and coverage of bicycle and pedestrian monitoring to better inform investment decisions. The data collected for this report is organized and analyzed to present information about the overall performance of the transportation system. This information informs project prioritization and

tracks the progress of those projects toward achieving the goals and objectives established in CAMPO's Regional Transportation Plan, shown on the previous page.

Together, the established goals, objectives, and performance measures form the basis of CAMPO's performance-based planning framework that informs policymaking, assists with investment decisions, and serves as the basis for project prioritization (capital improvements and maintenance) for projects contained within CAMPO's Transportation Improvement Program (TIP)[1]. The relationship between CAMPO's planning documents and performance-based planning framework is displayed graphically in Figure 1.2.

Figure 1.2: CAMPO's Primary Responsibilities
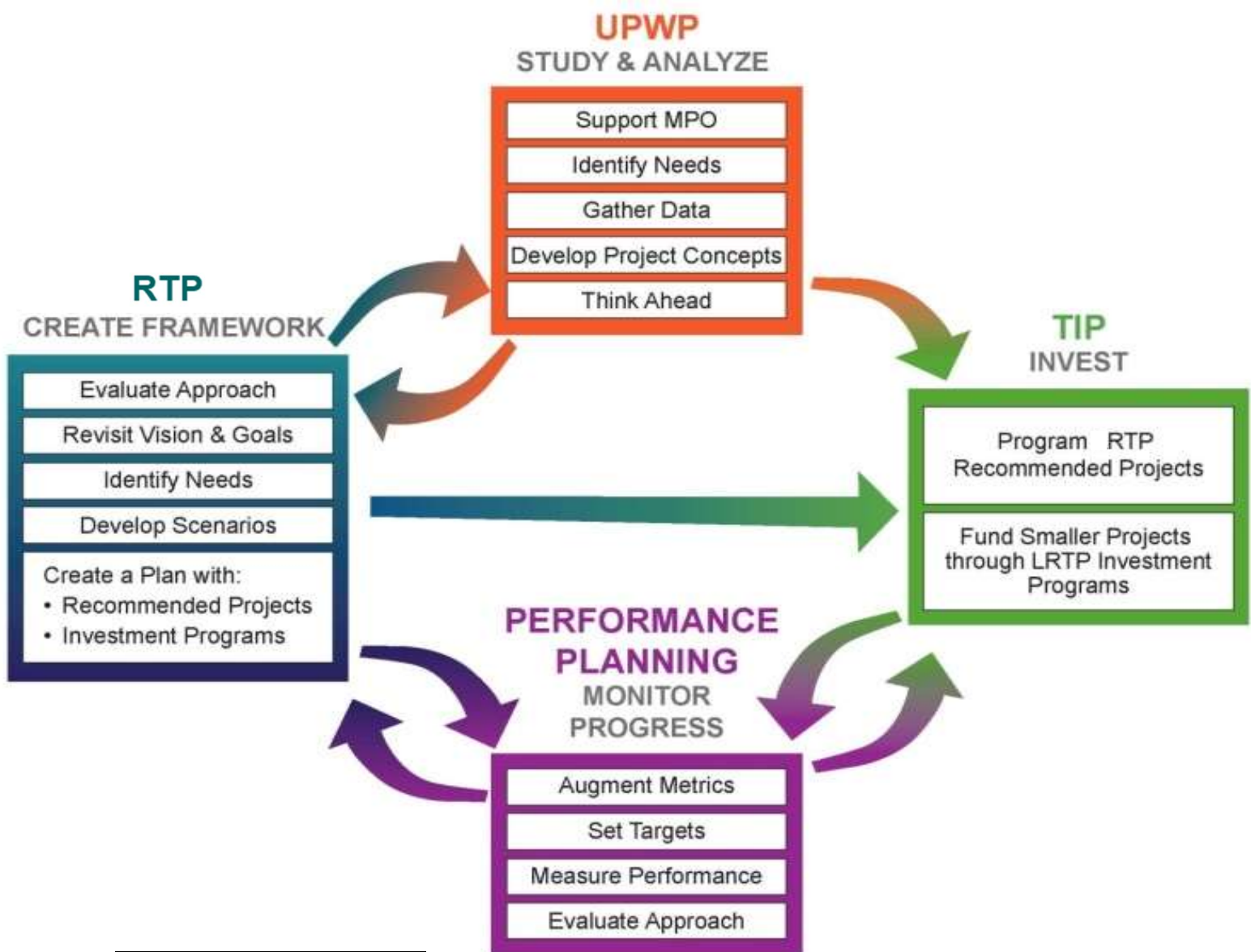
Chapter 2 WHO | Socio-Demographics

Transportation is innately personal – each of us experiences the transportation network through the unique lens of our daily activities. The 'Who' (socio-demographic composition of neighborhoods and regions) influences travel behavior, i.e., the where, when, why, what we travel on, and how each of us travels. By monitoring regional socio-demographic data[2], CAMPO is better informed and equipped to plan for and manage the region's use of regional transportation infrastructure for those who rely upon it. Figure 2.1 displays the 21 census tracts within the CAMPO Metropolitan Planning Area. The following socio-demographic data was compiled using all or portions of all 21 tracts. Tracts within the CAMPO region were updated in the 2020 Decennial Census to include Tracts 6.01 and 6.02 in Carson City and all or portions of all tracts 9603.01, 9603.03, 9603.04, and 9603.05 in Lyon County. Douglas County tracts within the CAMPO region remain unchanged from previous years.

Figure 2.1: Census Tracts within the
CAMPO Boundary

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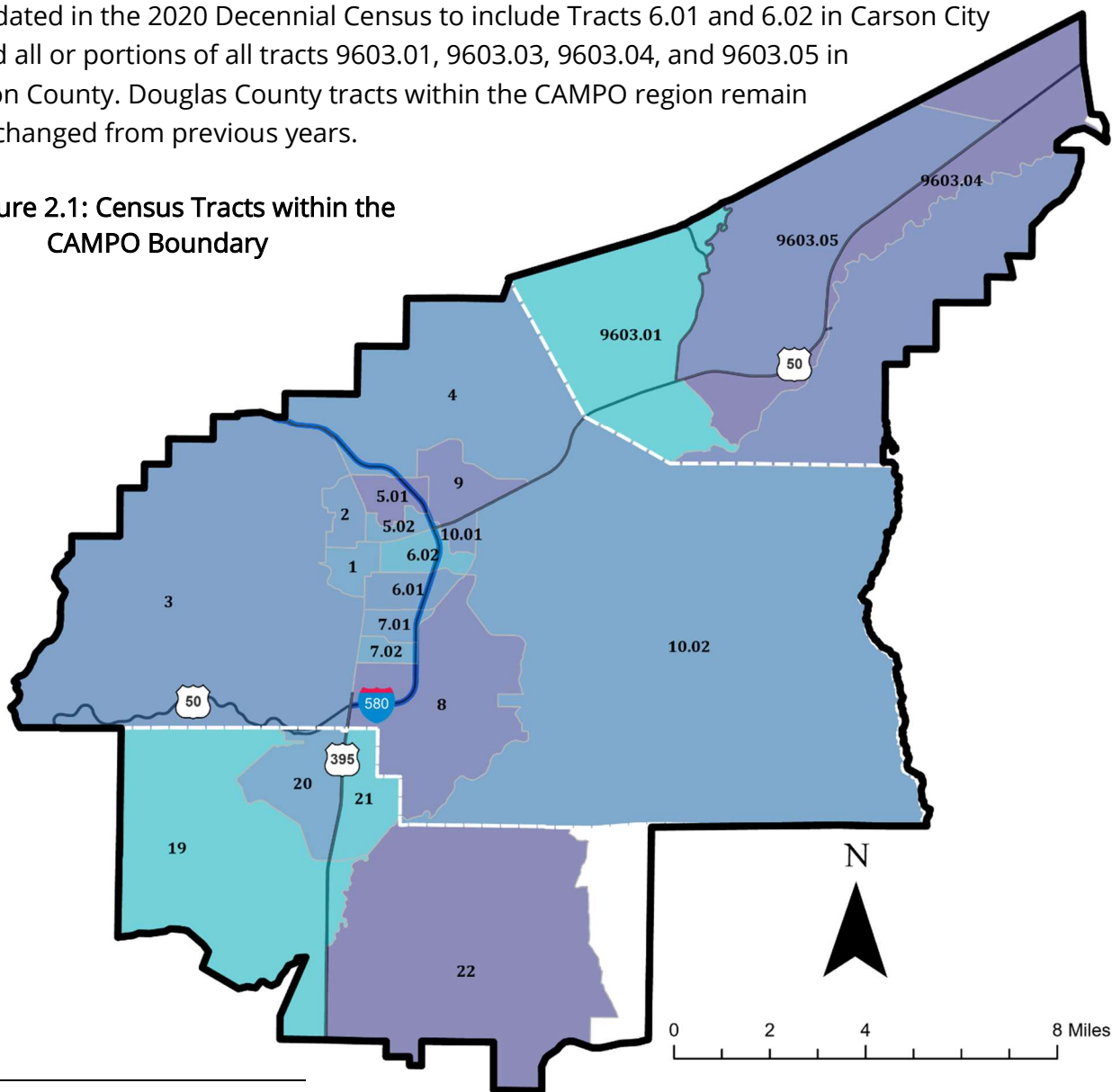
[2] American Community Survey (ACS), US Census Bureau - https://www.census.gov/programs-surveys/acs

2.1 Population

The CAMPO population increased by 0.3% in the last year, as shown in Figure 2.2. From 2022 to 2023, western and north central Carson City, Dayton in Lyon County, and the Indian Hills area of Douglas County had the highest increases in population over the last year.

Figure 2.2: CAMPO Total Population (2013-2023)
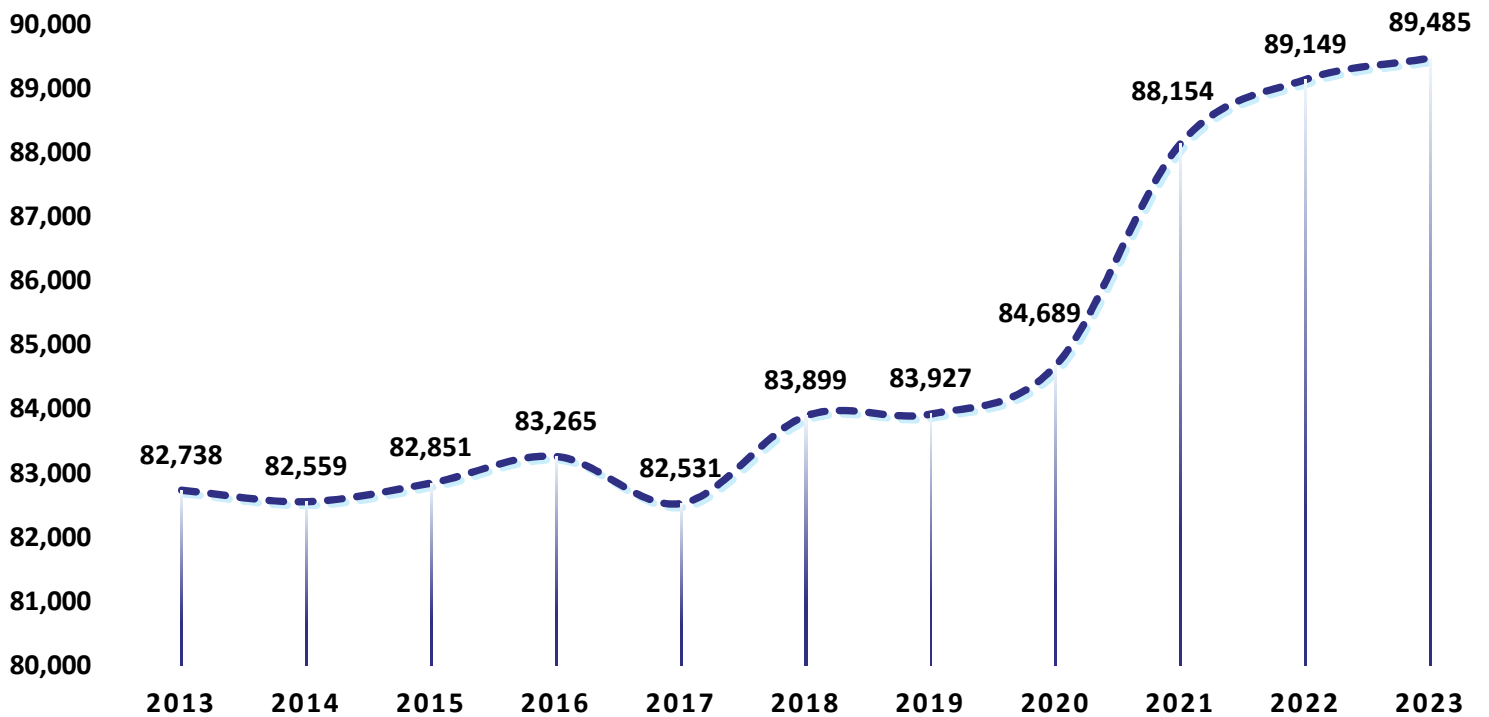
Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 2.3: CAMPO Population Pyramid
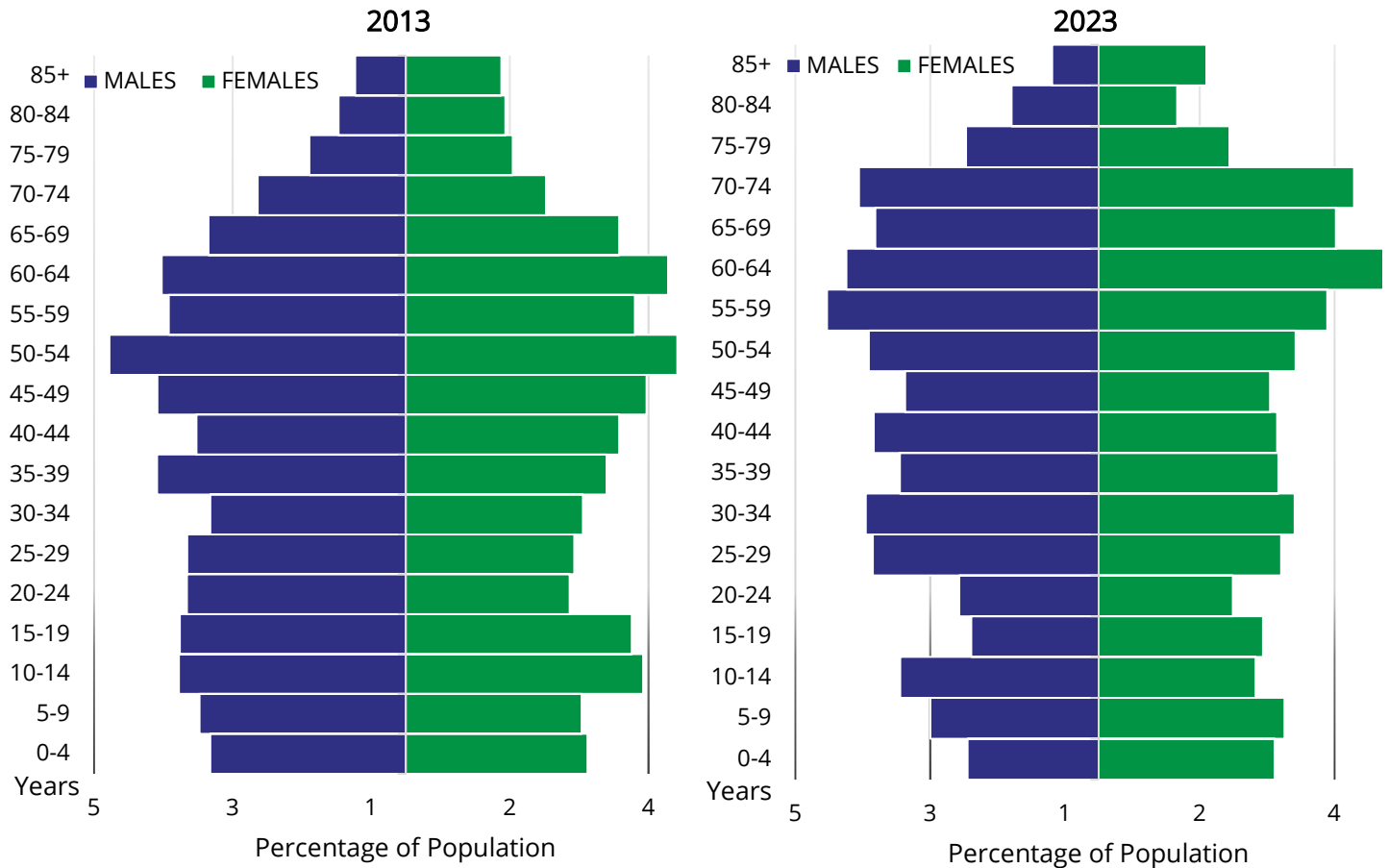
Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 2.3 is a population pyramid of CAMPO with a comparison of years between 2013 and 2023. There are three trends regularly seen in population pyramids: expansive, constrictive, and stationary. Expansive populations have high fertility and mortality rates and are represented as a typical pyramid shape. Constrictive population trends have a lower mortality rate with a constant fertility rate and are wider in the middle. Stationary population trends have low mortality and fertility rates and usually have a more square or pillar shape.

In 2013, the CAMPO population pyramid trend is representative of a constrictive population, where fertility rates are still high, but mortality rates remain low. The 2023 CAMPO population pyramid is trending more towards a stationary population where mortality and fertility rates are low; however, the population is still growing, but at a slower pace.

Figure 2.4: Percentage of Population by Race/Ethnicity (2023)

Figure 2.4 shows the racial/ethnic breakdown in CAMPO in 2023. The percentage of the Hispanic population within the region is at its highest point in the last ten years, reaching almost one-quarter percent of the CAMPO population, as shown in Figure 2.5. This percentage share is forecasted to continue growing over the coming decades according to the Nevada Department of Taxation (Table 2.1).

1.3% 2.8% 4.1% 0.1%
1.4%
23%
67%

White; Not of Hispanic Origin

Hispanic Origin of Any Race

Black; Not of Hispanic Origin

American Indian, Eskimo, or Aleut; Not of Hispanic Origin

Asian or Pacific Islander; Not of Hispanic Origin

Not Hispanic or Latino - Two or More Races

Not Hispanic or Latino - Some Other Race alone

Source: ACS Demographic and Housing Estimates, Table DP05. Annual Estimates from American Community Survey (ACS) 5-year Estimates
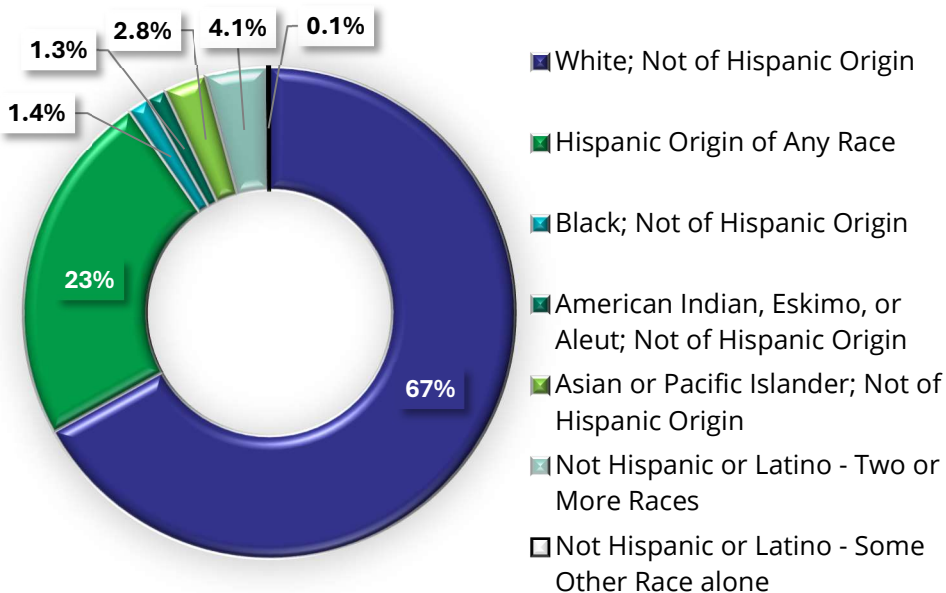
To facilitate effective community outreach, it is vital to ensure that engagement strategies include translated materials, partnerships with local Hispanic community groups, and an understanding of how to best collaborate with stakeholders from this community.

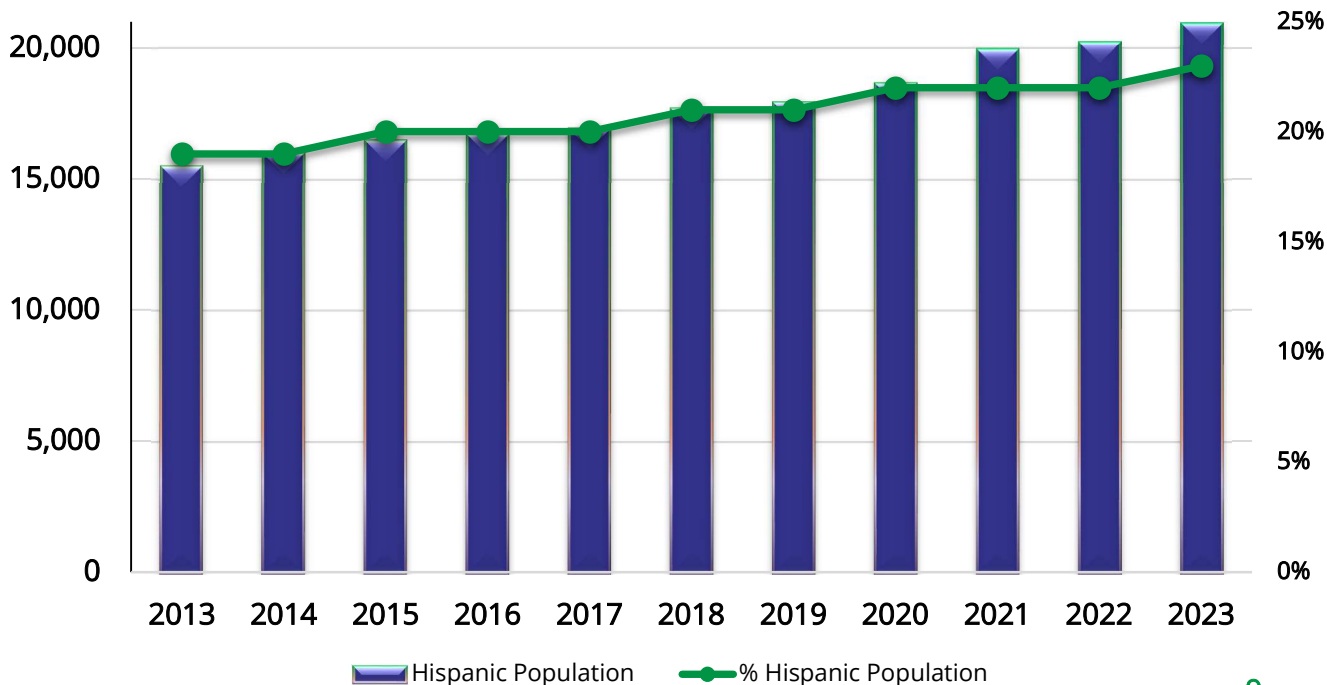**Figure 2.5: Hispanic Population and Percentage of Total Population (2023)**

Hispanic Population   % Hispanic Population

9

Table 2.1: 2024-2043 Nevada State Demographer Population Projections

Five-Year Cohorts	Carson City			Douglas County			Lyon County		
	Year	Year	Percent Change	Year	Year	Percent Change	Year	Year	Percent Change
	2024	2043	2024-2043	2024	2043	2024-2043	2024	2043	2024-2043
Ages 0-4	2,652	3,396	28%	1,893	1,769	-7%	3,554	3,851	8%
Ages 5-9	2,425	4,015	66%	2,735	2,334	-15%	3,987	4,204	5%
Ages 10-14	2,726	3,753	38%	2,810	2,630	-6%	3,841	4,284	12%
Ages 15-19	4,307	3,112	-28%	2,169	2,408	11%	3,570	4,253	19%
Ages 20-24	3,567	2,159	-39%	1,254	1,731	38%	2,937	4,303	47%
Ages 25-29	2,390	3,663	53%	3,265	2,328	-29%	4,248	4,339	2%
Ages 30-34	3,956	2,925	-26%	3,150	2,486	-21%	5,736	4,065	-29%
Ages 35-39	4,796	5,343	11%	3,310	2,452	-26%	3,048	3,688	21%
Ages 40-44	2,284	3,757	64%	2,630	2,929	11%	3,005	4,538	51%
Ages 45-49	2,581	2,311	-10%	2,977	4,225	42%	4,158	5,292	27%
Ages 50-54	5,520	4,116	-25%	3,274	3,852	18%	4,284	6,485	51%
Ages 55-59	4,621	3,862	-16%	4,124	3,991	-3%	4,475	3,268	-27%
Ages 60-64	3,510	2,401	-32%	4,948	3,472	-30%	4,227	3,800	-10%
Ages 65-69	4,139	3,389	-18%	5,260	4,239	-19%	4,232	4,506	6%
Ages 70-74	4,244	5,165	22%	3,794	3,869	2%	3,518	4,155	18%
Ages 75-79	2,772	4,590	66%	3,021	3,829	27%	2,499	3,470	39%
Ages 80-84	1,572	1,926	23%	2,021	2,991	48%	1,627	2,389	47%
Ages 85 over	1,499	3,006	101%	1,966	3,032	54%	1,339	2,391	79%
Total	59,562	62,887	6%	54,600	54,567	0%	64,287	73,280	14%
Sex									
Female	30,849	32,712	6%	27,956	28,687	3%	32,246	37,265	16%
Male	28,713	30,175	5%	26,644	25,880	-3%	32,041	36,015	12%
Race & Ethnicity									
White Not of Hispanic Origin	41,420	31,993	-23%	43,057	39,010	-9%	49,235	52,637	7%
Black Not of Hispanic Origin	801	788	-2%	384	692	80%	804	1,174	46%
American Indian, Eskimo, or Aleut Not of Hispanic Origin	1,423	1,179	-17%	1,367	1,760	29%	1,830	1,908	4%
Asian or Pacific Islander Not of Hispanic Origin	1,209	1,071	-11%	1,778	2,286	29%	1,423	2,146	51%
Hispanic Origin of Any Race	14,710	27,856	89%	8,013	10,819	35%	10,995	15,415	40%

*Highlighted areas note age cohorts with growth rates at or above 14%
** Source: Nevada Department of Taxation:
https://tax.nv.gov/wp-content/uploads/2024/05/2023-ASRHO-Estimates-and-Projections-Summary-2000-to-2042.pdf

Over the next 30 years, demand for the transportation system will grow and evolve because of increased population. In total, between the years 2020 and 2050, CAMPO's population is anticipated to grow to approximately 97,000 people. Population estimates for 2024 through 2043 (Table 2.1) from the Nevada Department of Taxation anticipate a growing senior population (shown in green) that will necessitate investment in safety enhancements to address the changing mobility needs of seniors. Investment in accessible public transportation, pedestrian, and bicycle facilities will be important for providing an aging population with mobility options and independence, along with improved integration and mobility for all system users.

2.2 Households

A community's distribution of household size has implications on the number and types of daily trips. Larger households tend to be comprised of families with children, which may generate travel for school and after-school activities, while smaller households may generate fewer trips overall, but may have more flexibility in their schedules to generate longer, inter-regional or interstate trips. Figure 2.6 displays the distribution of household size from 2013 to 2023.

> A household includes all people occupying a housing unit.

> The household size equals the number of persons per household and is expressed as a percentage.

> Over the ten-year reporting period, total households in the CAMPO Area are increasing, and the distribution of people within a household has remained consistent.

Figure 2.6: Total/ Percent Household Size (2013-2023)

Source: ACS Household Size by Vehicles Available, Table B08201. Annual Estimates from American Community Survey (ACS) 5-year Estimates.
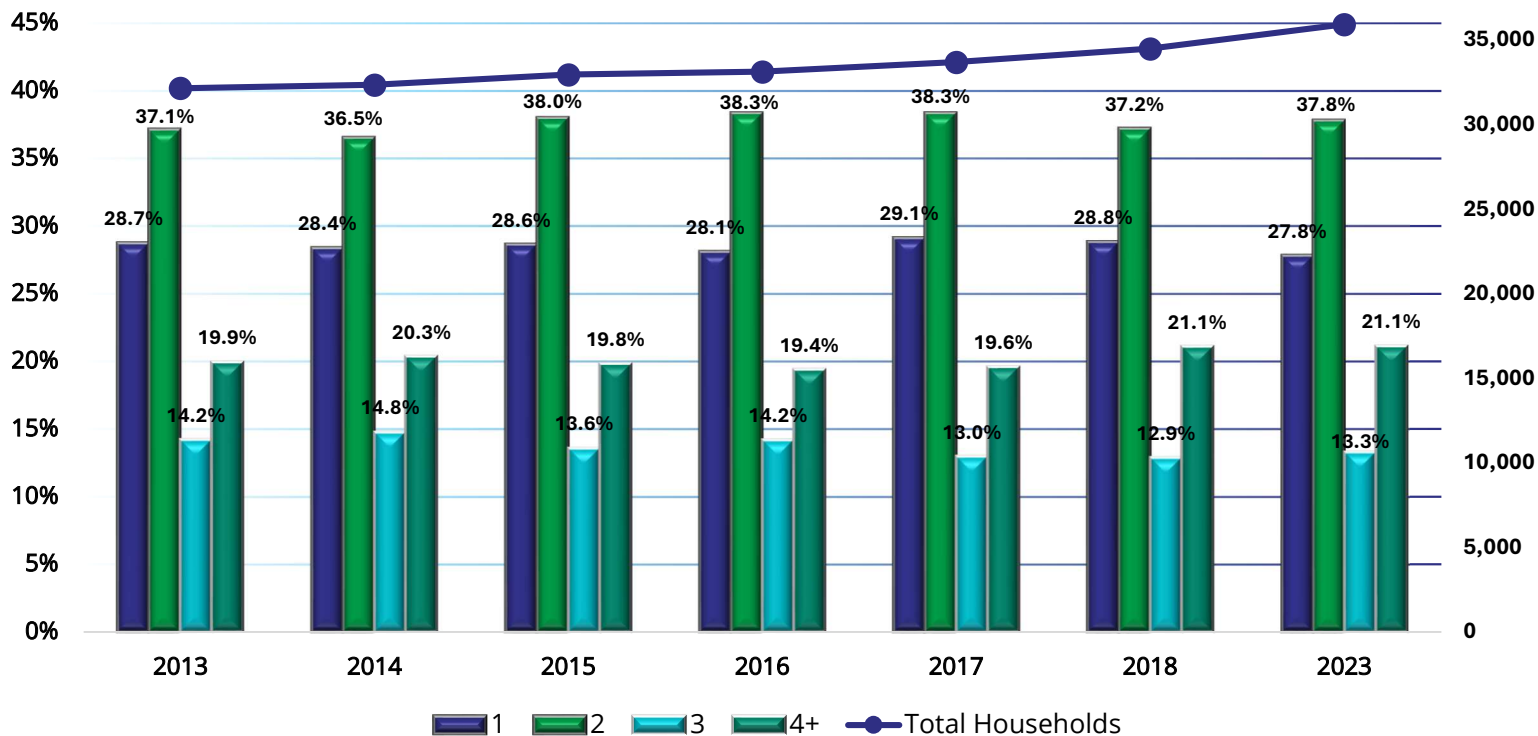
Figure 2.7: Housing Units/ Percent Occupancy Status (2013-2023)

Source: ACS Household Size by Vehicles Available, Table B25002. Annual Estimates from American Community Survey (ACS) 5-year Estimates
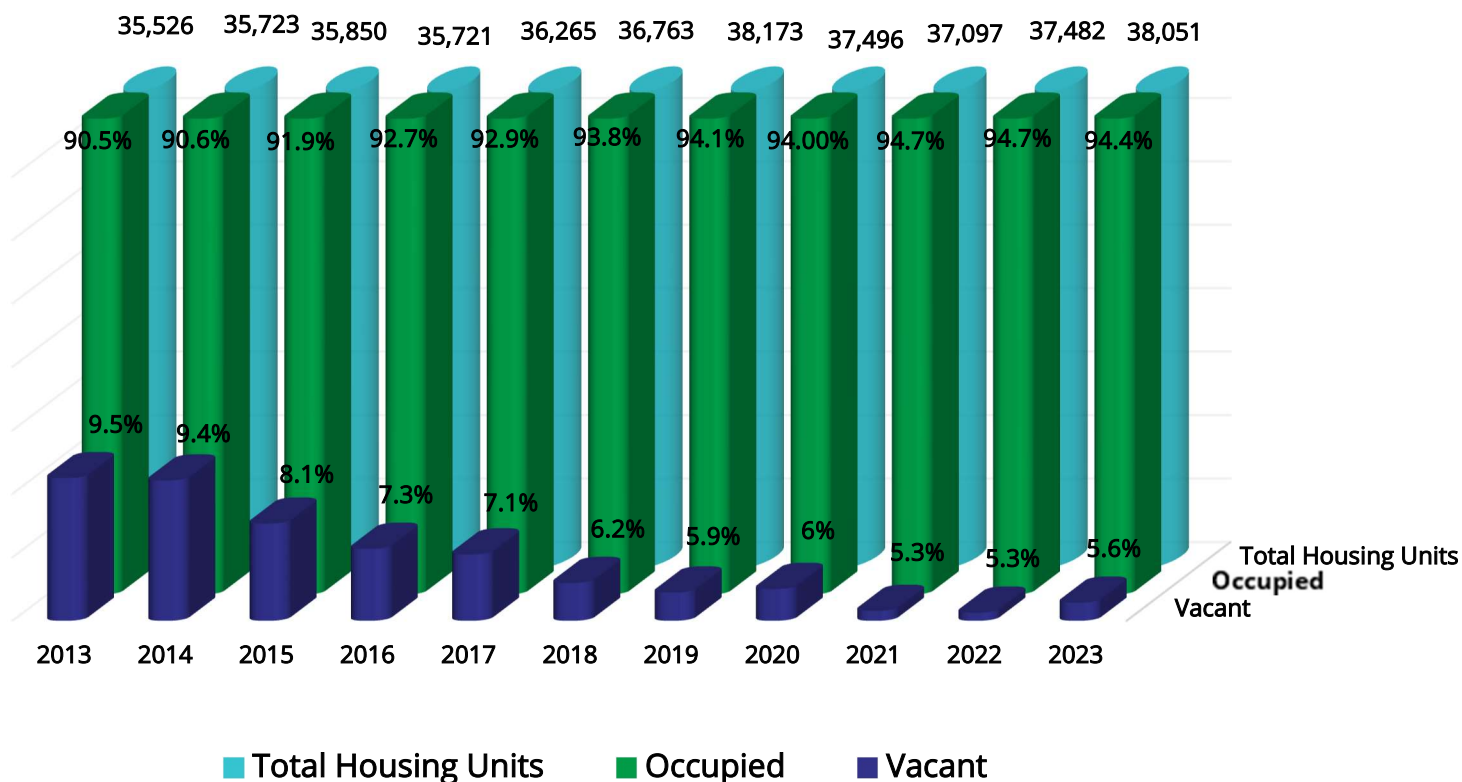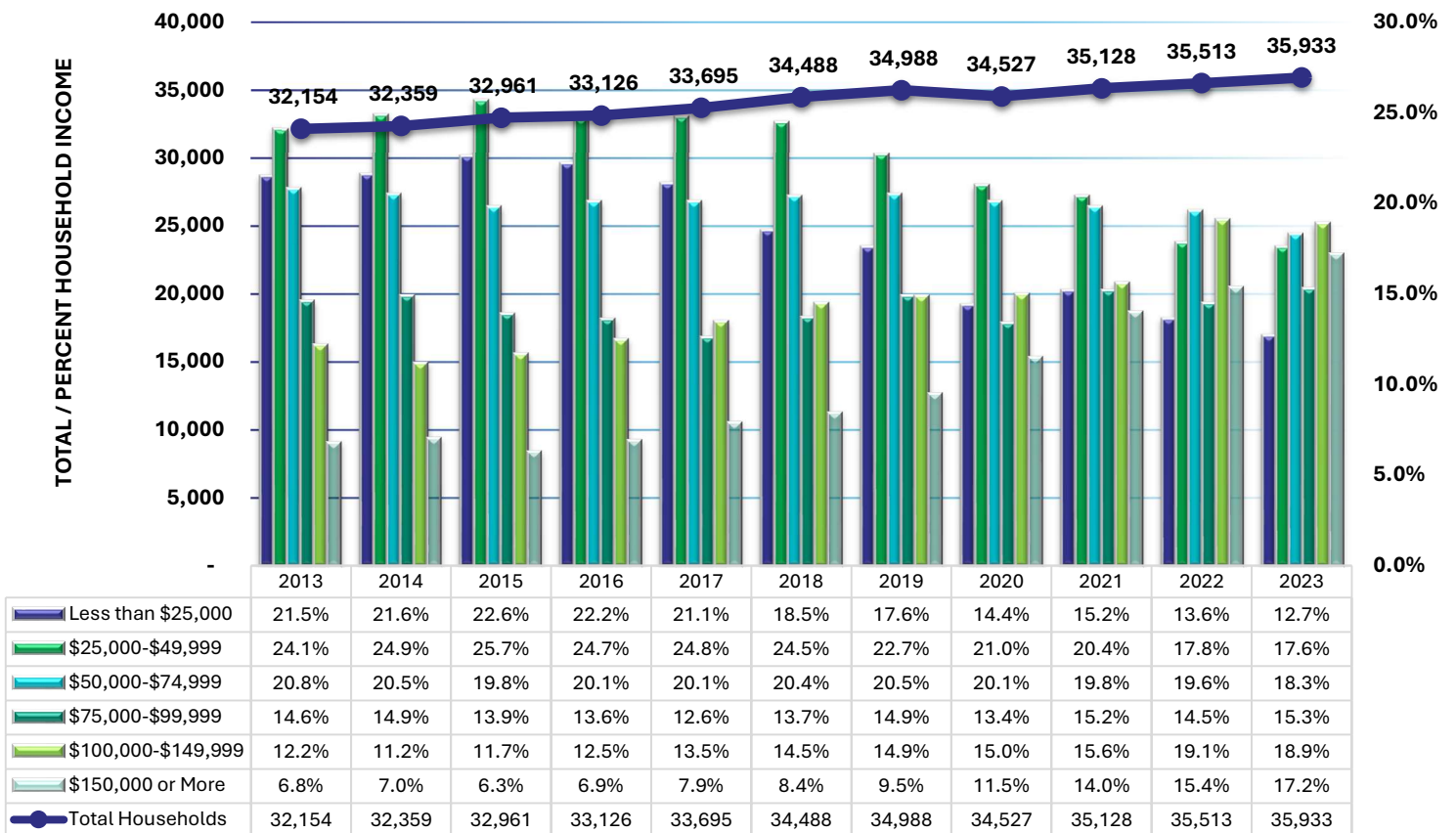
A housing unit is a house, apartment, mobile home, group of rooms, or an occupied single room, separated from other living quarters. Housing unit occupancy is an indicator of population growth and economic activity, which results in additional demand on the transportation system. Long-term increases in housing unit occupancy can result in local zoning ordinance policy changes to encourage higher densities, which over time, can lead to more pedestrian, bicycle, and transit trips in place of traditional automobile trips. Housing occupancy rates are also correlated with housing affordability, with higher occupancy rates being tied to the more expensive housing stock. Figure 2.7 displays the vacancy/occupancy status of housing units between 2013 to 2023. The occupancy rate has increased, reaching its highest point of 94.7% in 2021 and 2022, and remains high at 94.4% in 2023. The occupancy rate has increased by 3.9% since 2013. The vacancy rate has decreased by 3.9% since 2013.

Figure 2.8 displays reported household income from 2013 to 2023. The number of total households has increased by 11.8% from 2013 to 2023. The percentage of total households earning less than $25,000 has decreased by almost 9 percentage points over the decade, while the percentage of total households earning $150,000 increased by 10.4 percentage points.

Figure 2.8: Household Income (2013-2023)

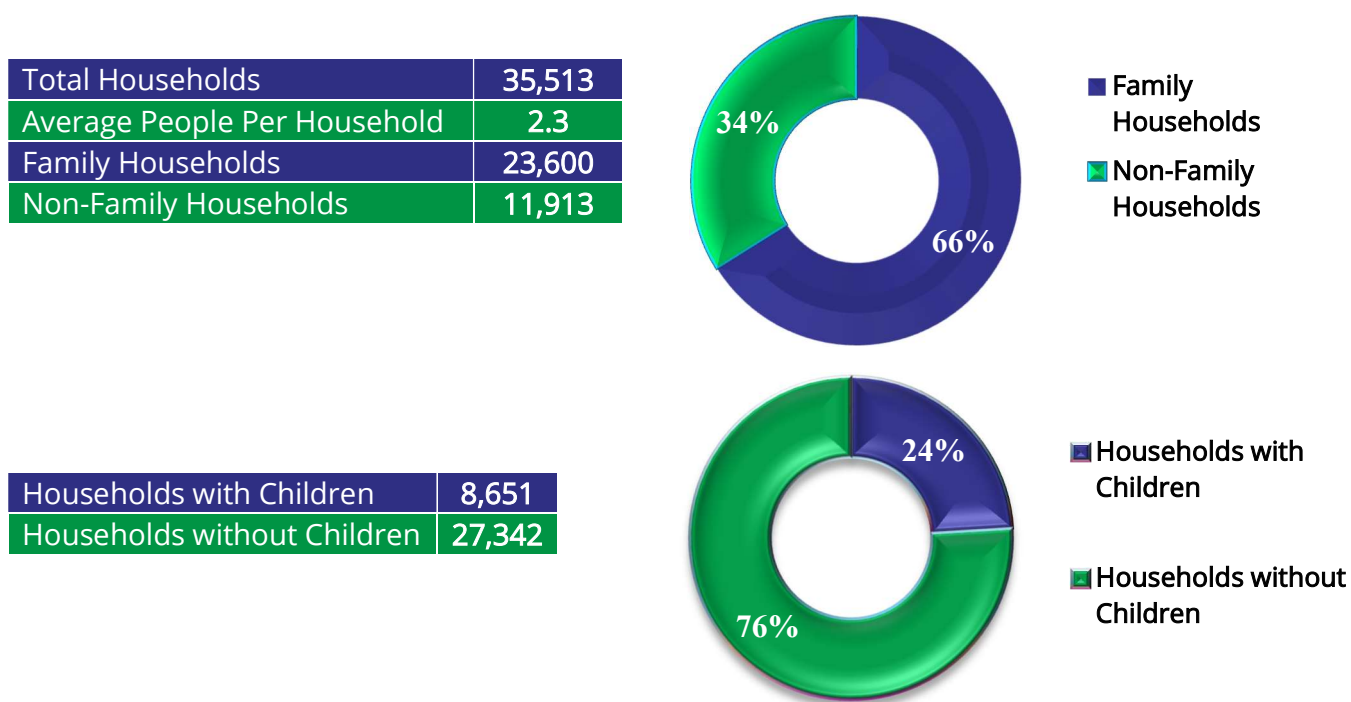|	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Less than $25,000	21.5%	21.6%	22.6%	22.2%	21.1%	18.5%	17.6%	14.4%	15.2%	13.6%	12.7%
$25,000-$49,999	24.1%	24.9%	25.7%	24.7%	24.8%	24.5%	22.7%	21.0%	20.4%	17.8%	17.6%
$50,000-$74,999	20.8%	20.5%	19.8%	20.1%	20.1%	20.4%	20.5%	20.1%	19.8%	19.6%	18.3%
$75,000-$99,999	14.6%	14.9%	13.9%	13.6%	12.6%	13.7%	14.9%	13.4%	15.2%	14.5%	15.3%
$100,000-$149,999	12.2%	11.2%	11.7%	12.5%	13.5%	14.5%	14.9%	15.0%	15.6%	19.1%	18.9%
$150,000 or More	6.8%	7.0%	6.3%	6.9%	7.9%	8.4%	9.5%	11.5%	14.0%	15.4%	17.2%
Total Households	32,154	32,359	32,961	33,126	33,695	34,488	34,988	34,527	35,128	35,513	35,933

Source: ACS Selected Economic Characteristics, Table DP03. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

The Bureau of Labor Statistics CPI Inflation calculator equates the buying power of $25,000 in 2012 with $33,832.53 in 2023 dollars. https://data.bls.gov/cgi-bin/cpicalc.pl

There are two major categories of households, "family" and "nonfamily". A family household is any two or more people residing together and related by birth, adoption, or marriage. A nonfamily household defines a householder living alone, or with an unrelated person, or persons. Within CAMPO, the average household has two people, with 66% identifying as family households. Less than a quarter of CAMPO households live with children, as shown in Figure 2.9.

Figure 2.9 CAMPO Household Types (2023)

Total Households	35,513
Average People Per Household	2.3
Family Households	23,600
Non-Family Households	11,913

Households with Children	8,651
Households without Children	27,342

Source: ACS Household Size by Vehicles Available, Table S1101. Annual Estimates from American Community Survey (ACS) 5-year Estimates.
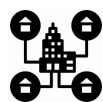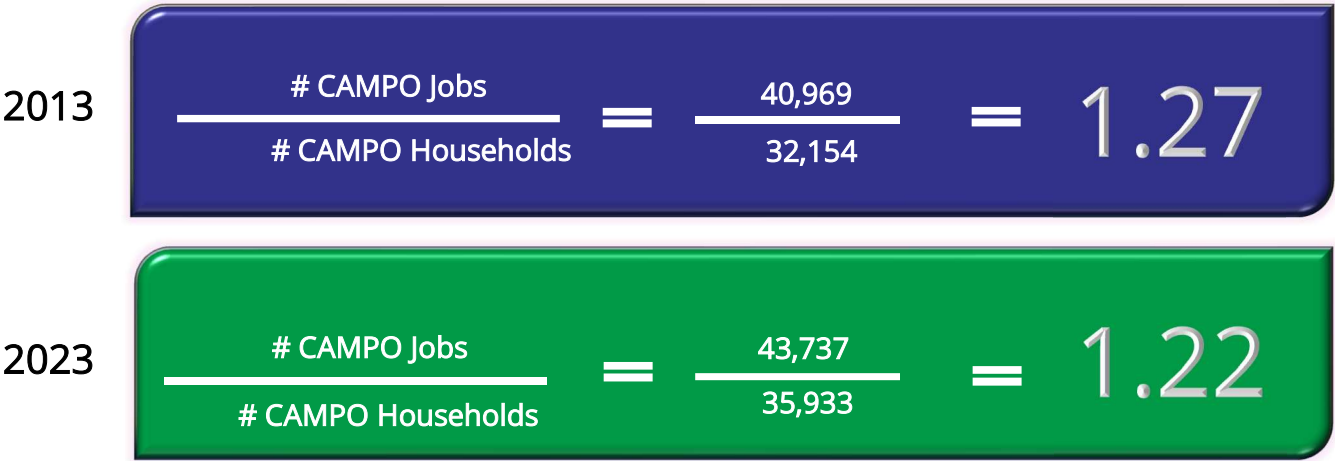
2.3 Jobs-Housing Balance

The jobs-housing balance is the ratio of jobs to housing within the CAMPO Area. Typically, a jobs-housing balance of 1.5 is considered a target standard, though this number can vary by community. In general, the standard should be based on the local data of workers per household. If a jobs-housing balance is too high, adequate housing may be unaffordable or unavailable to workers and can possibly lead to housing unaffordability, increased traffic congestion from in-commuting workers, or a lack of sufficient workers living in the area. If a jobs-housing balance is too low, there may not be enough jobs in the area for all workers, which may lead to traffic congestion from out-commuting workers. The 'jobs' and the 'housing' sides of the equation are sourced from the ACS Table DP03.

Figure 2.10 CAMPO Jobs – Housing Balance

2013

$$\frac{\text{\# CAMPO Jobs}}{\text{\# CAMPO Households}} = \frac{40,969}{32,154} = 1.27$$

2023

$$\frac{\text{\# CAMPO Jobs}}{\text{\# CAMPO Households}} = \frac{43,737}{35,933} = 1.22$$

"Jobs-Housing Balancing and Regional Mobility." APA Journal (American Planning Association), Spring 1989, p.136-150. Reprint available at: http://escholarship.org/uc/item/7mx3k73h. [1]University of California Transportation Center.

During the last decade, the number of CAMPO jobs has increased by 6.7% and the number of households has increased by 11.8%. As indicated in Table 2.1, there is an increasing population of CAMPO residents aged 70 and older. Over the last decade, there has been a 52% increase in total households that receive retirement income. The jobs-housing balance in CAMPO has decreased slightly over the last decade, most likely due to housing increasing at a faster rate than jobs, more retired residents, or residents traveling outside the MPO to work. For an analysis of workers within CAMPO, see section 5.1 Commuting.

Figure 2.11 Households with Retirement Income

Households without Retirement	24,064
Households receiving Retirement Income	11,869
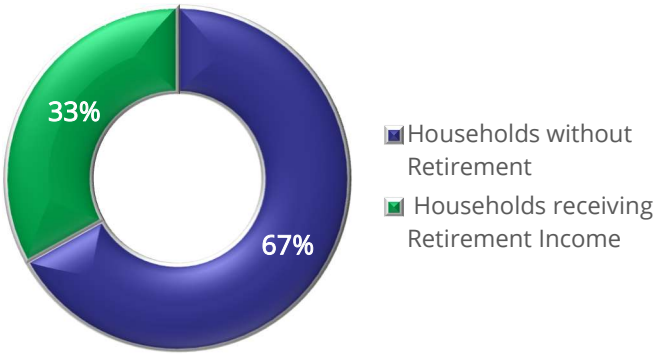
Source: ACS Households with Retirement Income Table DP03. Annual Estimates from American Community Survey (ACS) 5-year Estimates.
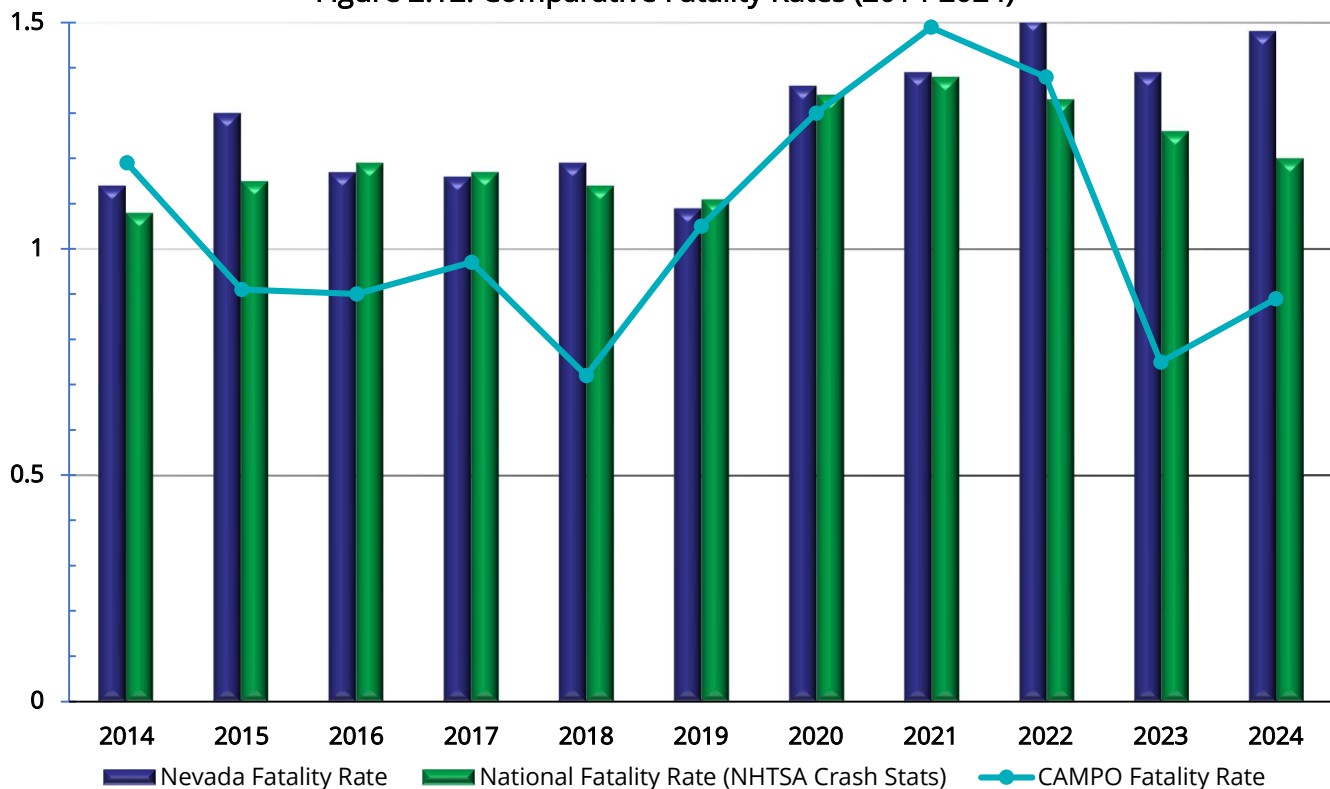
2.4 Safety

CAMPO monitors fatality rates compared with state and national trends. A comparison of the fatality rate per 100 million vehicle miles of travel of the Nation, State of Nevada, and CAMPO is displayed in Figure 2.12. CAMPO's member agencies continually aim to infuse safety elements and best practices into all transportation projects. This includes FHWA's Proven Safety Countermeasures Initiative, which identifies safety treatments and strategies that are encouraged to be implemented by state, tribal, and local transportation agencies to reduce serious injuries and fatalities.

Figure 2.12: Comparative Fatality Rates (2014-2024)

Nevada Fatality Rate — National Fatality Rate (NHTSA Crash Stats) — CAMPO Fatality Rate

Source: https://www.fhwa.dot.gov/tpm/

Each year, about one-quarter of traffic fatalities and one-half of all traffic injuries in the United States are attributed to intersections.[1] CAMPO staff analyzed all signalized intersections for crash rate and number of severe crashes. The results can be seen in Figures 2.13 – 2.15 for the period of 2019-2023. A crash rate analysis is a more effective comparison of similar locations with safety issues and is key to data driven decision making. CAMPO completed a Local Road Safety Plan in 2024 with NDOT to understand the causes of fatal and serious injury crashes and successful mitigations within the CAMPO region.

Figure 2.13: Signalized Intersection Crash Rate per Million Vehicles 2020-2024

Crashes per 1,000,000 Vehicles*

- 🟢 0.02 - 0.26
- 🟡 0.27 - 0.54
- 🟠 0.55 - 0.85
- 🔴 0.86 - 1.30
- 🟣 1.31 - 1.74
- ⬚ CAMPO Border

Categories are separated based on Natural breaks.

*Formula: Crash Rate = (1,000,000*Total Crashes)/(365*Number of Years*Average Daily Traffic)
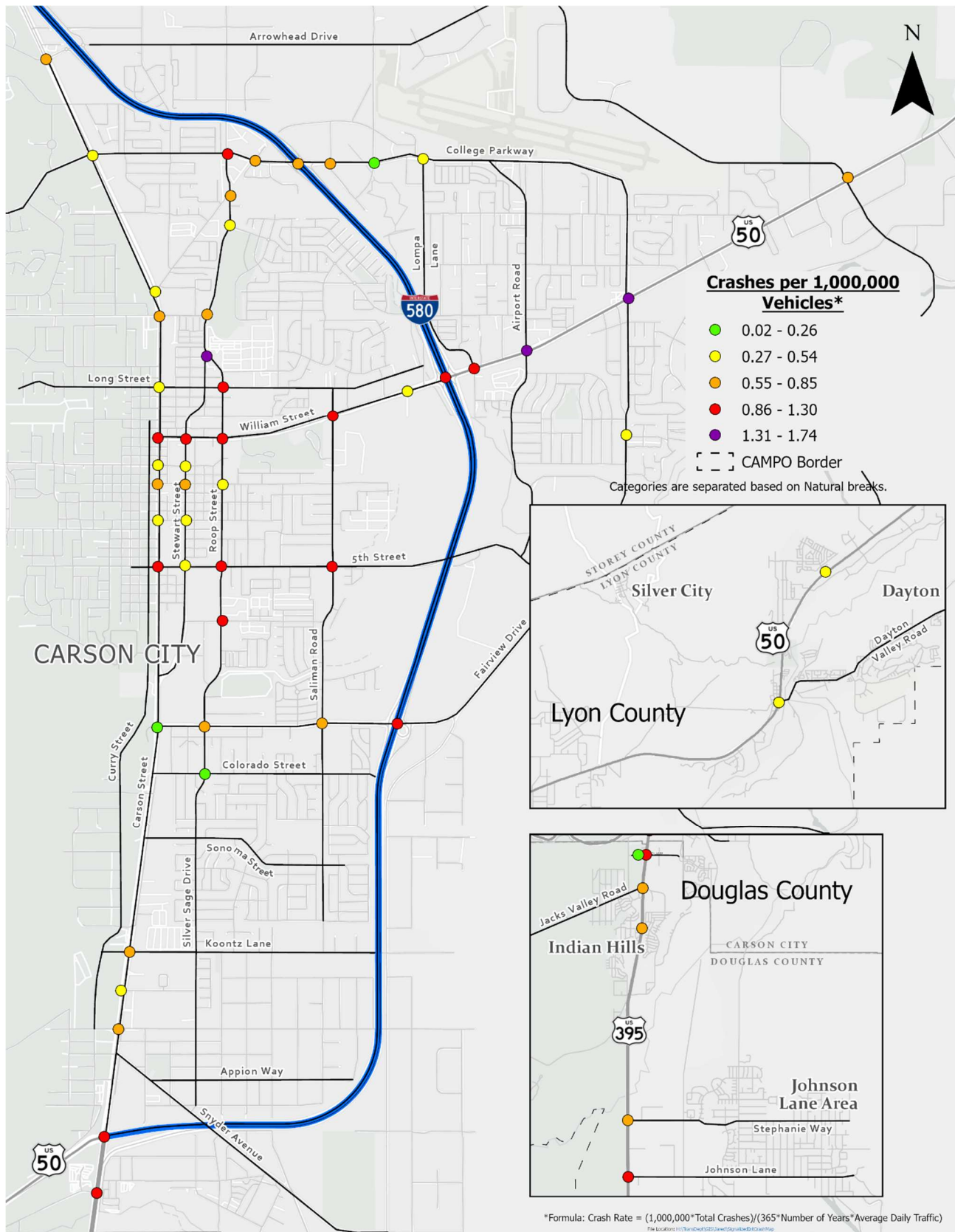
Figure 2.14: Number of Severe Crashes per Signalized Intersection 2020-2024
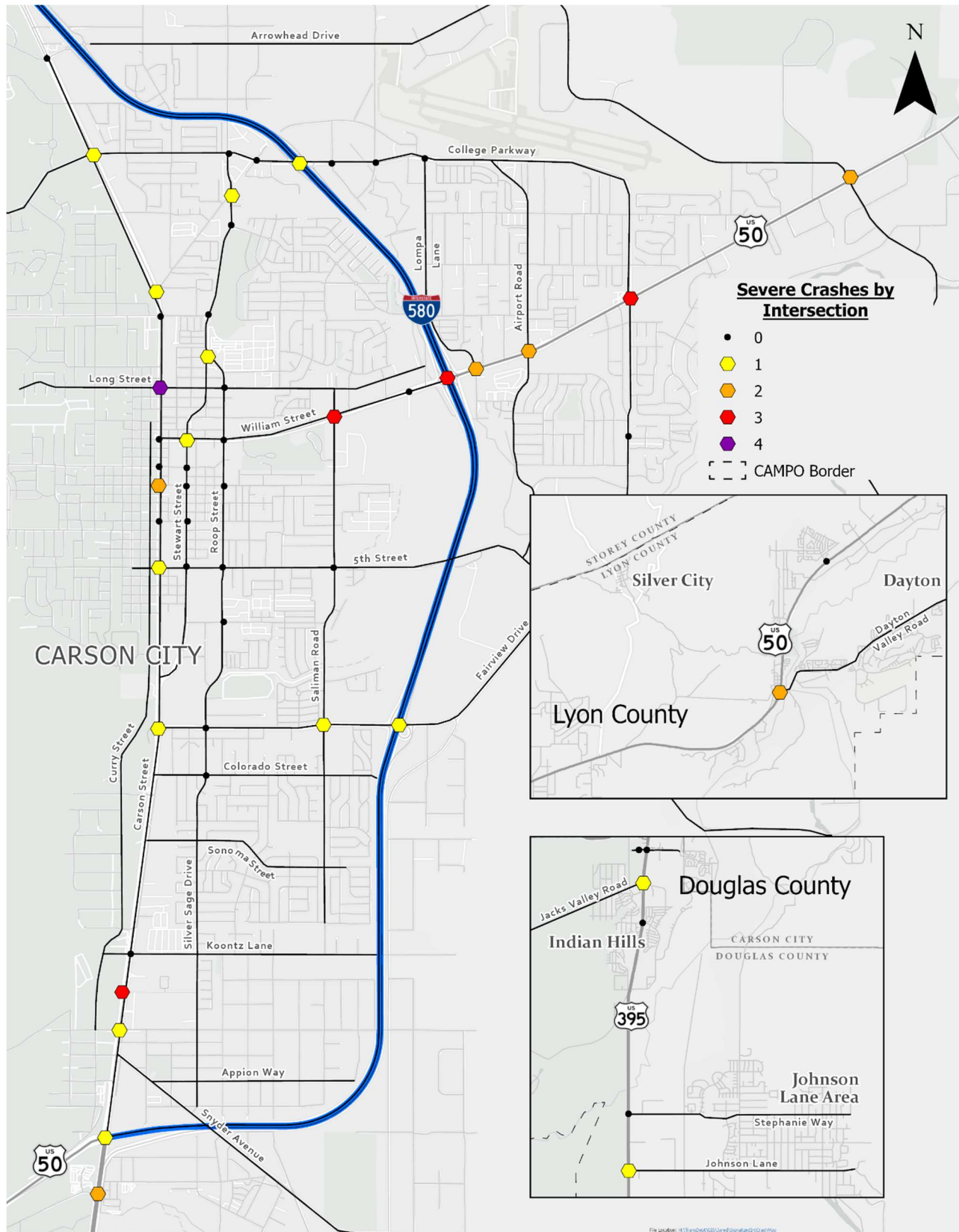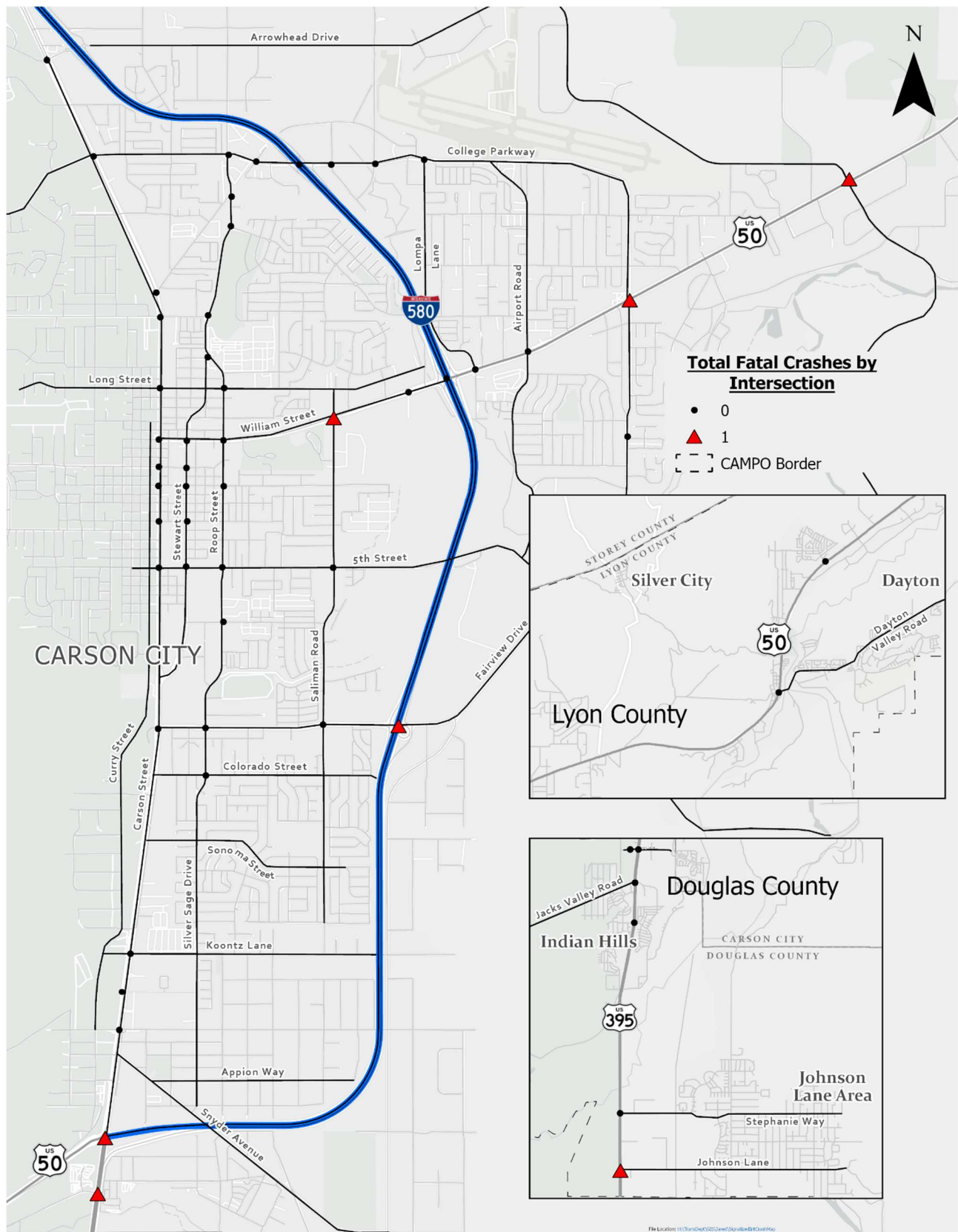
Figure 2.15: Number of Fatal Crashes per Signalized Intersection 2020-2024

Nevada Strategic Highway Safety Plan (SHSP)[3]

In 2004, NDOT and the Nevada Department of Public Safety formed a Technical Working Group to develop a statewide safety plan, the Nevada Strategic Highway Safety Plan (SHSP), with the latest update of the 2026-2030 SHSP to be approved by the Federal Highway Administration (FHWA) in December 2025. The SHSP is a comprehensive data-driven statewide safety plan that identifies the highest causes of fatalities and serious injuries on Nevada's roadways and provides a coordinated framework for reducing the crashes that cause fatalities and serious injuries. The SHSP establishes statewide goals and critical emphasis areas focusing on the 6 E's of traffic safety: Equity, Engineering, Education, Enforcement, Emergency Medical Services/Emergency Response/Incident 1 Nevada Strategic Highway Safety Plan (SHSP) Management, and Everyone. The purpose of the SHSP is to eliminate traffic related fatalities and serious injuries by combining and sharing resources across disciplines and strategically targeting efforts to the areas of greatest need. The SHSP is aligned with other statewide planning efforts and provides guidance for statewide traffic safety plans and local plans, and guides the investment of funds for three federally-funded programs: the Highway Safety Improvement Program (HSIP) managed by NDOT, Highway Safety Plan (HSP) managed by the Office of Traffic Safety (OTS), and the Commercial Vehicle Safety Plan managed by the Nevada State Police and Highway Patrol. In 2021, the Nevada Advisory Committee on Traffic Safety (NVACTS) was voted into statute and replaced the Nevada Executive Committee on Traffic Safety. CAMPO is an active and voting member of NVACTS.

2.4.1 Safety Performance Measures

FHWA has established defined safety performance measures and a target-setting methodology for MPOs and state transportation agencies to monitor and report. The Safety Performance Measure (PM) Final Rule establishes requirements to assess fatalities and serious injuries on public roads. The five established performance measures, based on a five-year rolling average, are listed below. Developing transportation projects and programs

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[3] Nevada Strategic Highway Safety Plan (SHSP) - https://zerofatalitiesnv.com/safety-plan-what-is-the-shsp

that address these safety performance measures is a top priority for CAMPO and will help CAMPO's member agencies be competitive when applying for State and Federal discretionary grant funding. Notably, between fiscal years 2017 and 2022, 83 percent of existing funding within the CAMPO Area is from a state or federal source.

> ## Safety Performance Measures
> 1. Number of Fatalities
> 2. Rate of Fatalities per 100 million Vehicle Miles Traveled
> 3. Number of Serious Injuries
> 4. Rate of Serious Injuries per 100 million Vehicle Miles Traveled
> 5. Number of Non-motorized Fatalities and Serious Injuries

These performance measures create a consistent method to count and gauge the safety of CAMPO's Transportation Network. The Fatality Analysis Reporting System (FARS) and the National Highway Transportation Safety Administration (NHTSA) provide data for measuring fatalities and serious injuries, respectively. Vehicle Miles Traveled (VMT) statistics are estimated using the statewide travel demand model maintained by NDOT.

Target-Setting Process - The Safety PM Final Rule establishes the process for State Departments of Transportation (DOTs) and MPOs to adopt and report safety targets along with a set of performance measures to assess progress toward targets. MPOs shall establish their performance targets for each of the five measures no later than 180 days after the State submits annual targets.

State Targets - NDOT's statewide targets are reported in their Highway Safety Improvement Program Annual Report.

CAMPO Requirements for Safety Target-Setting - CAMPO chooses to support the State's targets for the five performance measures noted above. Performance targets must be set annually by the MPO Board.

Each year, staff analyze alternative statistical trend line projections to evaluate appropriate targets for CAMPO. A five-year baseline projection trend is required to be evaluated. Additional projection trends should be evaluated against the five-year baseline. Targets must be data-driven, realistic, and attainable.

This Monitoring Report does not adopt any new safety targets; it simply reports them. In a review of the 2024 Targets, CAMPO's rate of fatalities and the serious injury rate is slightly lower than the target. Table 2.2 contains information on the five safety performance

measures, including the five-year baseline data and CAMPO's relative 2018-2024 targets, respectively. Since February 2021, CAMPO has chosen to support Nevada statewide safety targets in lieu of establishing CAMPO-specific targets. The Nevada State Performance Measures for safety can be seen in Table 2.3

Table 2.2: CAMPO Safety Performance Measure Data and Targets

	Fatalities			Serious Injuries			Fatalities and Serious Injuries Non-Motorized			Rate of Fatalities		Rate of Serious Injuries		Vehicles Miles Traveled
	Target	#	Rolling Average	Target	#	Rolling Average	Target	#	Rolling Average	Target	Rate	Target	Rate	(VMT)
2018	5.57	5	5.8	8.25	11	8.6	7.25	4	7	0.8	0.72	1.18	1.58	696,272,881
2019	5.6	7	5.6	8.25	14	9	6.75	4	5.4	0.84	1.05	1.24	2.1	665,777,895
2020	5.4	8	6.6	8.5	31	13.6	5.3	6	5.6	0.87	1.3	1.38	5.02	617,009,797
2021	6.3	10	7.2	13.1	46	20.8	5.2	20	8	0.94	1.49	1.95	6.84	673,191,017
2022	6.8	9	7.8	20	35	27.4	7.8	12	9.2	1.04	1.38	3.06	5.36	653,641,290
2023	7.5	5	7.8	26.5	47	34.6	8.8	16	11.6	1.12	0.75	3.94	7	671,439,516
2024	7.5	6	7.6	34.1	32	38.2	11.4	8	12.4	1.11	0.89	5.06	4.75	674,147,950

1. Targets for Fatalities, Serious Injuries, and Non-Motorized Fatalities & Injuries are calculated based on 5-year rolling averages with future years interpolated based on Zero Fatalities in 2050.
2. Rolling averages consist of a five-year rolling average, which includes the reporting year
3. Serious Injuries are when an injured person is unable to leave the crash scene without assistance
4. Rate of Fatalities and Serious Injuries are per 100 million Vehicle Miles Traveled (VMT)- Example: 2021 Target Rate of Fatalities =Target Fatalities*CAMPO VMT/100 million=6.3/6.73=0.94
5. Green shading denotes target was met; red shading denotes target was not met.
6. Since February 2021, CAMPO has supported the State's safety targets in lieu of using CAMPO-specific targets, however, CAMPO continues to track all crashes, fatalities, and serious injuries within the CAMPO area.

Chapter 3 WHAT | Mobility Network

The accessibility, availability, connectivity, efficiency, and safety of traveling on the transportation network all influence how people travel between destinations. Road design, pavement condition, and travel time all influence the viability of vehicle trips. Connectivity and level of safety influence the probability of short- or long-distance bicycle travel. Connectivity, accessibility (e.g. presence of Americans with Disabilities (ADA) compliant curb ramps), and convenience influence whether someone chooses to walk to their destination. The location of bus stops and bus frequency (headway) will determine whether someone chooses to take transit.

How and where each of the mobility modes connects with other modes further determines the feasibility of those modes. For example, the ability of someone to leave their house, safely bicycle to the bus stop, load their bicycle onto the bus, take the bus to a location in proximity to their employment, and secure their bicycle once they arrive directly influences which mode of transportation someone will use. In the winter months when it gets dark early, the presence of street lighting along sidewalks, bicycle lanes, and bus stops further influences mode choice decisions. When a mode of transportation is not efficient, easy-to-use, or safe, travelers may choose not to make the trip at all or choose a transportation mode that they perceive to be easier or quicker. By monitoring the location and characteristics of all modes in the mobility network, CAMPO is better informed and equipped to plan for and manage the region's use of, and demand for, regional transportation infrastructure connecting travelers with their destinations.

3.1 - Roadways

The quality of the roadway system is of central importance to the region's economy and the quality of life for people living and traveling in CAMPO. As required by the Federal government for the use of federal funds, CAMPO is responsible for collecting data and tracking performance measures related to investments made to the transportation network. Performance measures are used to inform planning, design, pavement management, capital improvements, operations, and maintenance activities on area roadways.

All roadways have a functional classification. Functional classification is the process by which streets and highways are grouped into classes according to the character of the service they are intended to provide. Roads with higher classifications serve the mobility needs of a greater number of people and typically carry more traffic. Roads with lower classifications

tend to provide access to more individual properties than serve the mobility needs of a greater number of people. To be eligible for federal funding, federal regulations require a roadway to be functionally classified as a collector or an arterial. Except for safety funds (e.g. HSIP), local/neighborhood streets are not eligible to receive federal funding.

Arterial roadways are those roadways that provide a high level of regional mobility; Local/neighborhood roadways are those that provide a high level of accessibility and local access to neighborhoods. Collector roadways are those that provide a more balanced blend of mobility and property access. Figure 3.1 displays the functional classification of roadways within CAMPO. The Classification of roadways is a joint effort between local, regional, state, and federal agencies.

Figure 3.1: Roadway Functional Classification Map

Source:https://www.nevadadot.com/travel-info/maps/functional-classification-maps
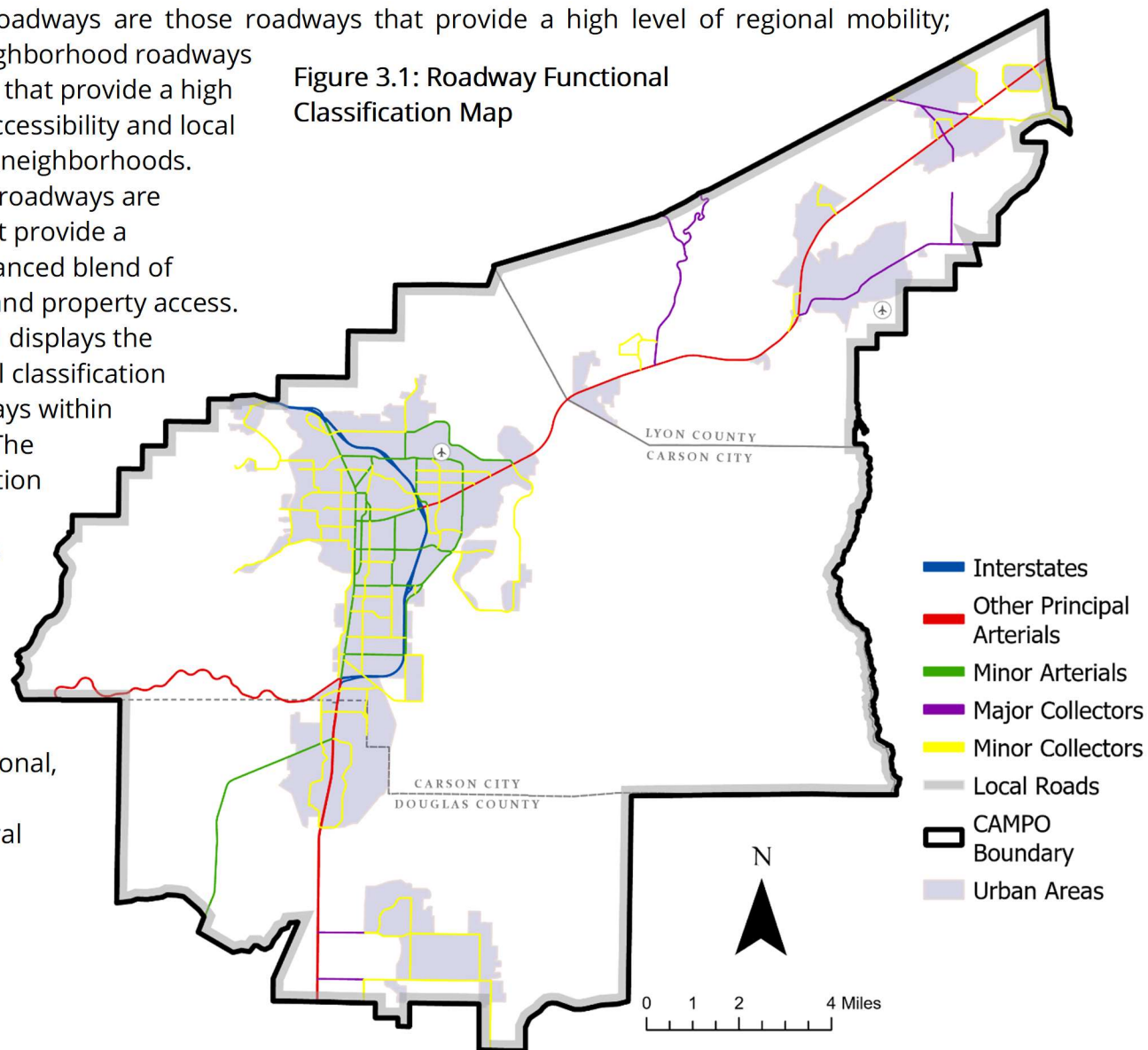
3.2 Local Roadway Pavement Condition

There are 304.9 centerline miles of public road mileage and 304.32 centerline miles of Motor Fuel Tax road miles as of December 31, 2024, within Carson City. The roadway network provides vehicle mobility and is by far one of the most significant investments made by local agencies. Preservation of the roadway network has been identified as a high priority by federal, state, regional, and local agencies. The 2024-2028 Pavement Management Plan was developed through a partnership between Carson City Public Works and CAMPO. The plan serves as a framework for preserving, rehabilitating, and reconstructing Carson City's and CAMPO's roadway network. Although the plan was originally developed to incorporate only Carson City's roadways, CAMPO has since collected Pavement Condition Index (PCI) data for Douglas County and looks forward to eventually supporting pavement management planning for Western Lyon County as well.

Standard PCI Rating Table

100	Good
85	Satisfactory
70	Fair
55	Poor
40	Very Poor
25	Serious
10	Failed
0	

Annual reporting of pavement conditions will assist decision makers in priority-based budgeting. Carson City has established targets for pavement condition using a Pavement Condition Index (PCI). Target setting helps staff and decision makers evaluate and allocate limited funding resources toward maintaining pavement infrastructure.

- PCI Rating Target for Regional Roads – 75 and above
- PCI Rating Target for Local Roads – 70 and above

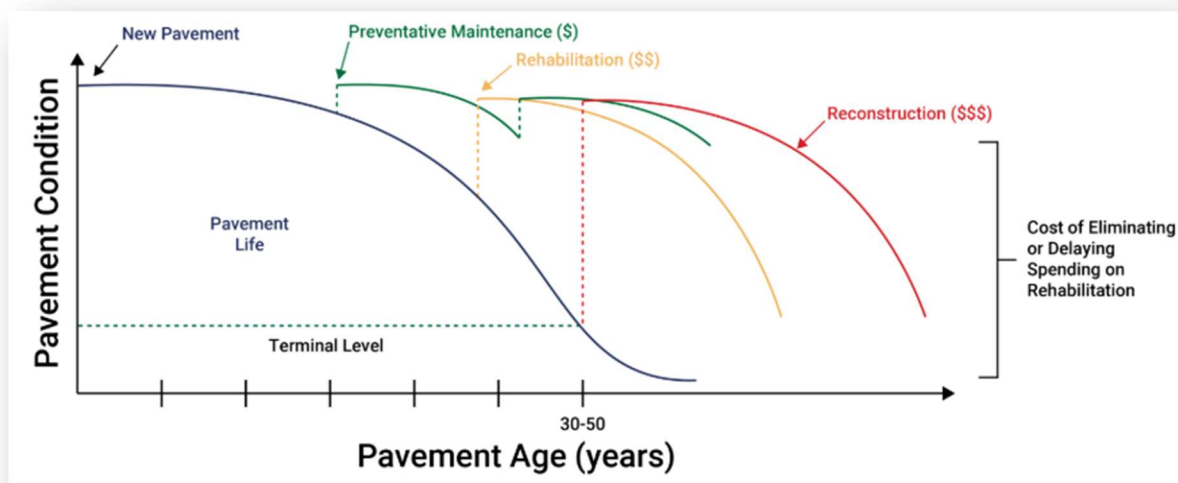Figure 3.2 Pavement Deterioration Rates

Table 3.1 presents the PCI for roadways within Carson City and across the five performance districts. The data reflects increases in regional road PCI in the Performance Districts where projects, such as the South Carson Complete Streets Project has been completed. Overall, Carson City roadway conditions have decreased nine percent since 2017, with local road conditions deteriorating by fourteen percent.

Pavement preservation treatments are the most efficient use of funding because the treatments are typically low-cost and preserve past investment in infrastructure. It is important to note that the PCI values are beginning to decline at a faster rate (see Table 3.1 and Figure 3.2). This is because the bulk of the City's roads are approaching the performance curve that has the sharpest decline, which is approximately between 69 PCI and 25 PCI. For reference, the average PCI for local roads is 53, which is near the middle of the pavement deterioration range. Table 3.2 presents the CAMPO and Douglas County Area PCI by jurisdiction from the 2024 Pavement Survey.

Table 3.1: Carson City Pavement Condition Index – Annual Report Card

Facility Type		Inspected PCI			Est. PCI	Percent Change 2017 to 2025
		2017	2022	2024	2025	
City-wide	Regional Roads	67	74	69	67	0%
	Local Roads	61	56	55	53	-14%
	All Roads	63	62	60	58	-9%
Performance District 1	Regional Roads	67	69	59	57	-15%
	Local Roads	62	57	54	52	-16%
	All Roads	64	61	56	54	-16%
Performance District 2	Regional Roads	73	80	73	70	-5%
	Local Roads	64	53	54	52	-19%
	All Roads	67	63	60	58	-14%
Performance District 3	Regional Roads	72	77	74	73	0%
	Local Roads	57	58	55	54	-7%
	All Roads	62	64	61	60	-3%
Performance District 4	Regional Roads	61	79	79	76	25%
	Local Roads	58	51	52	50	-14%
	All Roads	59	61	61	59	0%
Performance District 5	Regional Roads	64	65	62	59	-7%
	Local Roads	66	60	60	58	-13%
	All Roads	65	62	60	58	-11%

Table 3.2: CAMPO and Douglas County Area PCI by Jurisdiction

Area	Functional Classification	Area (ft2)	Percentage of Network	Area Weighted PCI
CAMPO	Regional	3,561,229	13%	81
	Local	7,293,707	26%	58
CAMPO Total		10,854,936	39%	66
Douglas County	Regional	6,349,689	23%	84
	Local	10,949,844	39%	61
Douglas County Total		17,299,533	61%	69

3.3 Performance Measures

FHWA published the Pavement and Bridge Condition Performance Measures Final Rules in the Federal Register on January 18, 2017, with an effective date of May 20, 2017. The rule established performance measures to assess the condition of pavements and bridges on the National Highway System (NHS) (see Figure 3.9).

Federally Required Performance Measures for Pavement Condition:

➢ % of Interstate pavements in **Good** condition
➢ % of Interstate pavements in **Poor** condition
➢ % of non-Interstate NHS pavements in **Good** condition
➢ % of non-Interstate NHS pavements in **Poor** condition

Figure 3.9: National Highway System Roadways and Bridges within CAMPO's Boundary
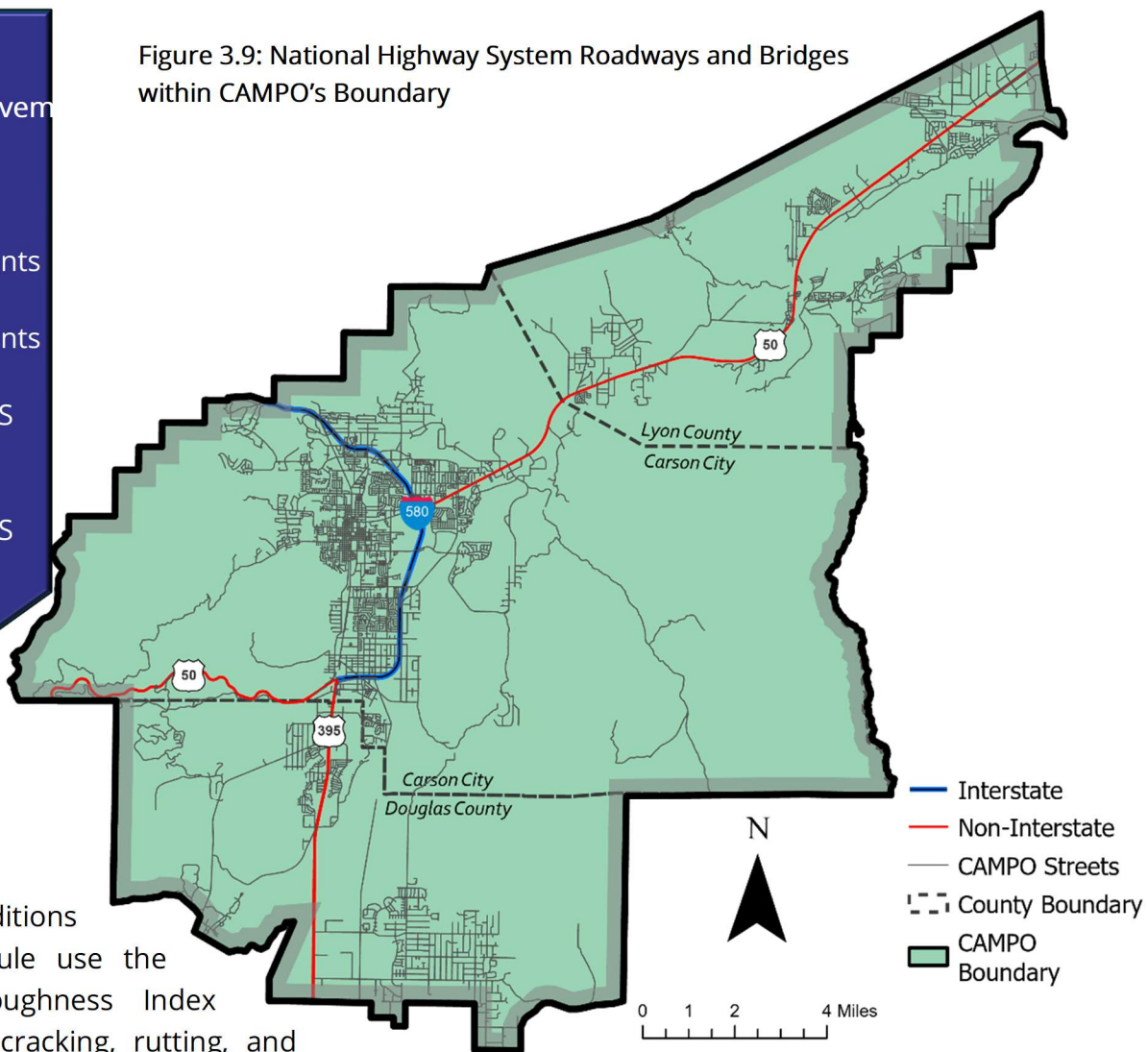
Pavement conditions for this Final Rule use the International Roughness Index (IRI) along with cracking, rutting, and faulting distresses to measure roadway condition. This is different than how local member agencies measure roadway conditions. Local member agencies use the Pavement Condition Index (PCI) to measure pavement conditions. The difference between IRI and PCI is that IRI measures smoothness or ride quality while PCI measures conditions based on surface distress.

Table 3.3: Nevada Performance Measures for Pavement Systems

Performance Measure	Current	2024	
		2-Year Target	4-year Target
Percentage of Pavements of the Interstate System in Fair or Better Condition	84.9%	81%	81%
Percentage of Pavements of the Interstate System in Poor Condition	0.3%	< 0.5%	< 0.5%
Percentage of Pavements of the Non-Interstate National Highway System (NHS) Classified as in Good Condition	65.3%	67%	65.5%
Percentage of Pavements of the Non-Interstate National Highway System (NHS) Classified as in Poor Condition	0.4%	< 0.5%	<0.5%

Federally Required Performance Measures for Bridge Condition*:

➢ % of NHS bridges by deck area in **Good** condition
➢ % of NHS bridges by deck area in **Poor** condition
* Includes all bridges on the NHS, including bridges that function as on- and off-ramps

The performance measures evaluate the bridge deck, bridge structure above ground, bridge structure below ground, and associated culverts. These evaluations are performed, monitored, and reported by NDOT. CAMPO monitors these performance measures to advocate for resources as needed.

Table 3.4: Nevada Performance Measures for Bridge Conditions

Performance Measure	Current	2024	
		2-Year Target	4-year Target
Percentage of National Highway System (NHS) Bridges Classified as in Good Condition	52.7%	> 35.0%	> 35.0%
Percentage of National Highway System (NHS) Bridges Classified as in Poor Condition	0.6%	< 7.0%	< 7.0%
Percentage of Non-Interstate National Highway System (NHS) Bridges Classified as in Good Condition	54.4%	> 35.0%	> 35.0%
Percentage of Non-Interstate National Highway System (NHS) Bridges Classified as in Poor Condition	0.8%	< 7.0%	< 7.0%

FHWA published the National Highway System and Freight Performance Measures Final Rules in the Federal Register on January 18, 2017, with an effective date of May 20, 2017.

Federally Required Performance Measures for System Reliability*:

> ➢ Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the Interstate that are reliable
> ➢ Non-Interstate Travel Time Reliability Measure: Percent of person-miles traveled on the non-Interstate NHS that are reliable
> ➢ Freight Reliability Measure: Truck Travel Time Reliability (TTTR) Index

* Developed to assess the performance of the interstate and non-interstate segments of the National Highway System as well as regional freight movement

The Final Rules for Pavement Condition, Bridges, and System Reliability performance measures require a performance report which includes baseline conditions along with two- and four-year targets. CAMPO supports NDOT's targets. These performance measures are calculated, tracked, and reported by NDOT. CAMPO currently supports NDOT's two- and four-year targets for Pavement Condition, Bridge Condition, and System Performance measures. CAMPO staff has requested that NDOT provide all NHS data for these performance measures that are specific to CAMPO's Metropolitan Planning Area. Acquisition of this data will allow for a statewide and nationwide comparison. Table 3.4 contains the latest data for roadways, bridges, and system reliability on the National Highway System.

Table 3.5: Nevada Performance Measures for System Reliability

Performance Measure	Current	2024	
		2-Year Target	4-year Target
Percent of the Person-Miles Traveled on the Interstate that are Reliable	85.1%	≥ 87.1%	≥ 87.2%
Percent of the Person-Miles Traveled on the Non-Interstate National Highway System (NHS) that are Reliable	90.1%	≥ 87.1%	≥ 87.2%
Truck Travel Time Reliability (TTTR) Index	1.30	≤ 1.25	≤1.24

Source: NDOT 2024 Performance Management Report; https://www.fhwa.dot.gov/tpm/reporting/state/state.cfm?state=Nevada

Chapter 4 WHERE | CAMPO

Where people travel is determined by a complex interrelationship of land uses. The location of, and distance between, residences, jobs, industrial complexes, and schools, all influence routine daily trip-making from home to school, and to work. The location of post offices, grocery stores, restaurants, recreational facilities, entertainment centers, shopping malls, and other destinations, all influence additional, discretionary trip-making. On a bigger scale, a community's proximity to regional destinations (Lake Tahoe, for example) influences weekend interregional travel or seasonal influx of visitor travel.

4.1 Land Use

By monitoring land uses and zoning districts, CAMPO is better informed and equipped to plan for and manage the region's use of, and demand for, regional transportation infrastructure that connects these land uses. The type of residential and commercial land uses in a community influences trip-making. A one-bedroom apartment that houses one or two adults typically generates fewer and a different mix of daily trips than a single-family home with a 4+ person household. Likewise, an administrative office complex will generate fewer and a different mix of daily trips than a high-turnover restaurant or a manufacturing/ shipping facility. Daily trip generation is a key component in travel demand modeling.

Figure 4.1: Zoning Districts example, CAMPO Sub-Area (Central Carson City)
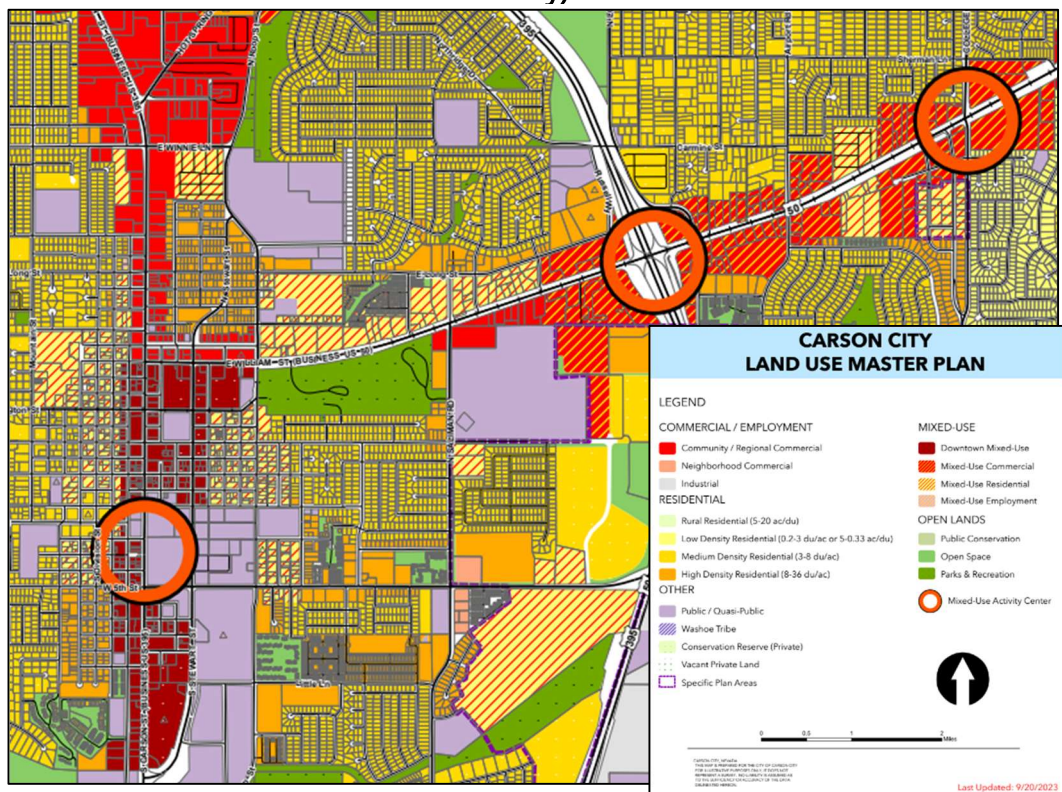
4.2 Travel Demand Model

CAMPO's Travel Demand Model (TDM) is the primary tool used to help understand and forecast the usage of the transportation network. A critical input to the travel demand model is current and future land use information. CAMPO's TDM is regularly updated with known changes to land uses and approved projects that can influence travel behavior in the area. Carson City has 27 different zoning districts (Figure 4.1) that permit and prohibit certain land uses. City zoning regulations consist of both a zoning map and a written ordinance that divides the City into zoning districts, including various residential, commercial, and industrial districts. The zoning regulations describe what type of land use and specific activities are permitted in each district.

The land use information is grouped into geospatial areas called Transportation Analysis Zones (TAZs). The size and spatial extent of a TAZ vary, but they typically range from very large in rural areas to very small in urban areas and business districts. A TDM uses TAZs to pair land use (Chapter 4) and socio-economic data (Chapter 2), such as the number of households or employment units, to assign current and future trips to the transportation network. This information helps to identify travel and traffic trends. Figures 4.2 through 4.7 display the density of housing units and commercial employment by TAZ that is assumed in CAMPO's travel demand model for a base model year of 2022, and two forecast years; a near-term scenerio of 2030 and a long-term scenerio of 2050. The CAMPO model was updated in 2016, 2018, 2020, and most recently in 2024. CAMPO partnered with Douglas County to update both the CAMPO and the Douglas County TDM.

The CAMPO TDM and Douglas County TDM were combined into a single travel demand model covering both areas. CAMPO created an updated year 2022 base year TDM scenario. Land uses were updated based on the latest available Census, American Community Survey, and Bureau of Labor Statistics data. The roadway network was updated to reflect current lanes, speeds, and geometries. The base year scenario was calibrated using NDOT TRINA traffic counts and big data origin/destination data. The TDM Traffic Analysis Zones (TAZs) were updated to add additional detail and improve loading of traffic onto the model network. The prior CAMPO TDM had 242 TAZs. The prior Douglas County TDM, which included Carson City, had 331 TAZs. The CAMPO & Douglas County TDM has 461 TAZs. Various improvements were made to the Trip Generation sub-model, including splitting the Non-Home-Based (NHB) trips into NHB Work and Other purposes. NHB trips were also linked to Home-Based trips to better capture typical daily trip "tours".

The TDM Truck sub-model was greatly enhanced so that the TDM now displays calibrated truck volumes and forecasts. Various tools were added to the TDM interface, including scenario planning, project mapping, TDM parameter editor, and automated map generation.

Future year 2030 and 2050 TDM scenarios were created. Future land use growth was based on currently adopted plans, the State Demographer, and historical trends. Latest roadway projects listed in the CAMPO RTP and Douglas County Master Plan were included in the future scenarios, including constrained and unconstrained projects. An Open GIS Interface Tool was created so that CAMPO, Douglas County, and project stakeholders can easily access key TDM inputs and outputs without TransCAD software.

A complete model documentation report is provided at this link: Carson City Transportation Documents | Carson City

Travel Demand Modelling considers future population, economic factors, and other variables, including land use patterns and estimates of future activity from local governments, to forecast demand on the roadway network. The near-term and long-term scenarios are further analyzed by adding transportation improvement projects, which are categorized by projects that are reasonably anticipated to be funded (constrained), and which projects do not have funding identified (unconstrained). CAMPO staff utilizes two model outputs Level of Service (LOS) and travel time estimates.
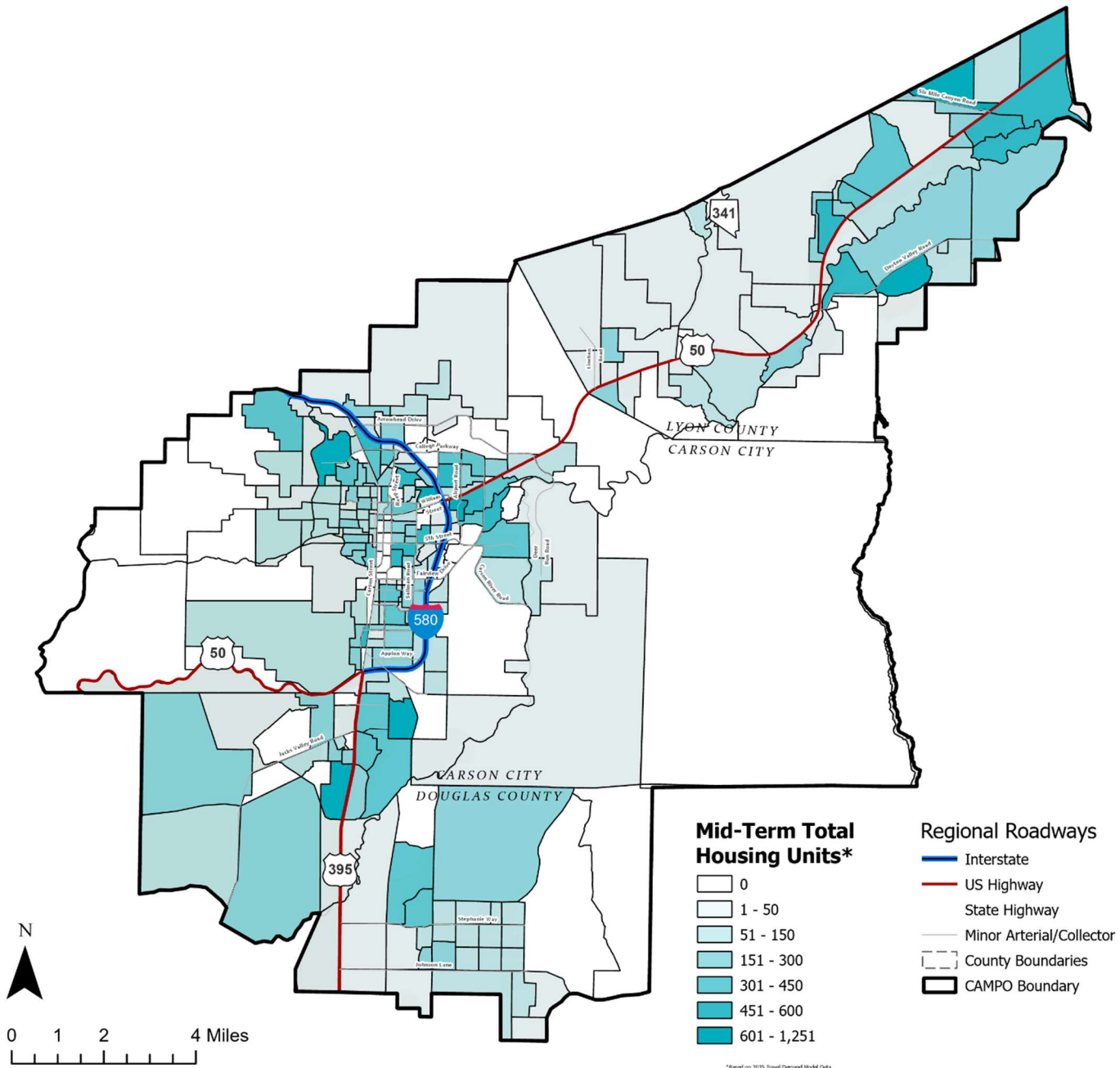
# Figure 4.2: Housing Units by Transportation Analysis Zone (TAZ)

2022

Current Total Housing Units*

- 0
- 1 - 50
- 51 - 150
- 151 - 300
- 301 - 450
- 451 - 600
- 601 - 644

*Based on 2022 Travel Demand Model Data

Regional Roadways

- Interstate
- US Highway
- State Highway
- Minor Arterial/Collector
- County Boundaries
- CAMPO Boundary

Source: Travel Demand Model Update, October 2025.

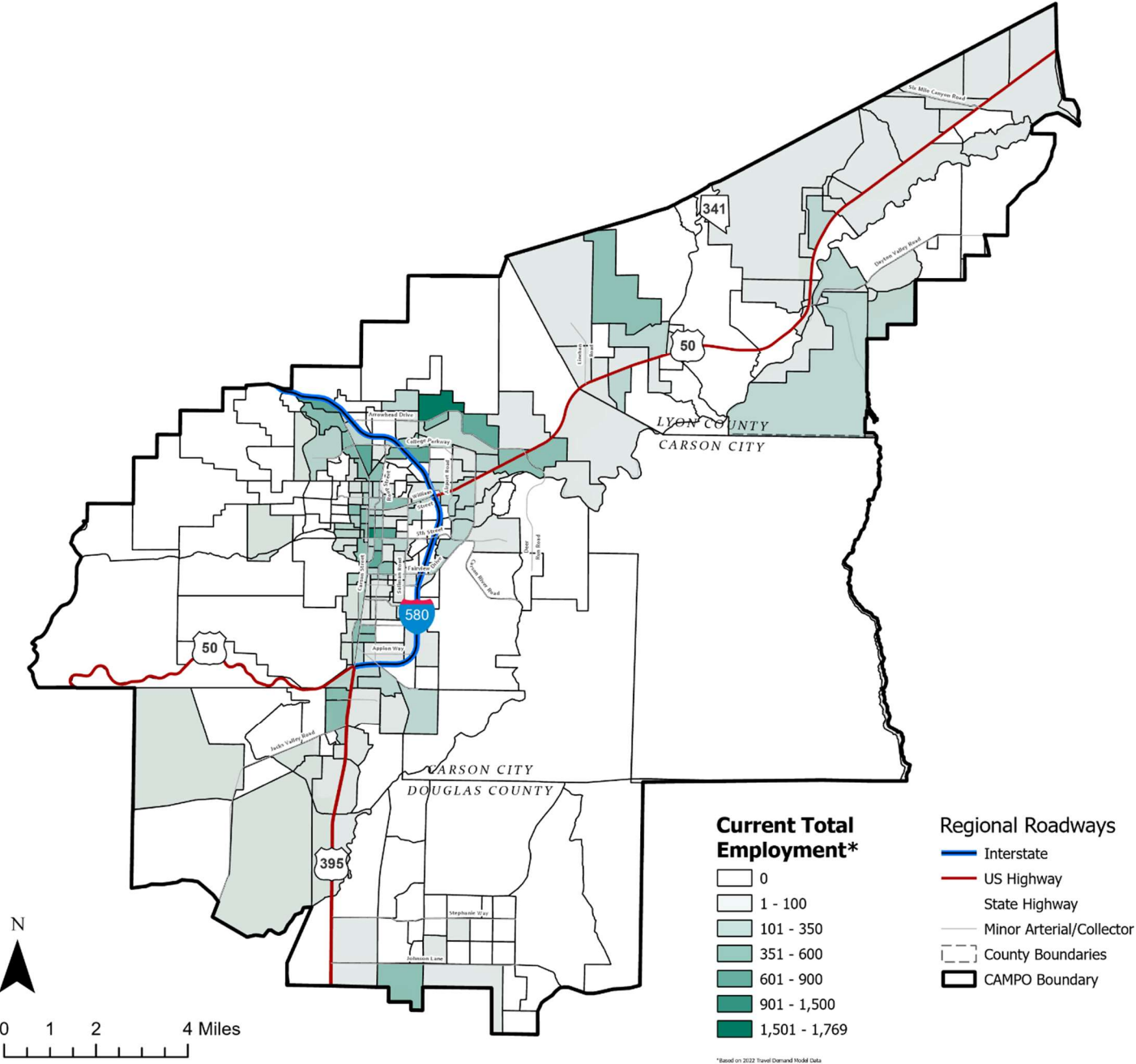### Figure 4.3: Housing Units by Transportation Analysis Zone (TAZ)

2035

Source: Travel Demand Model Update, October 2025.

Figure 4.4: Housing Units by Transportation Analysis Zone (TAZ)

2050
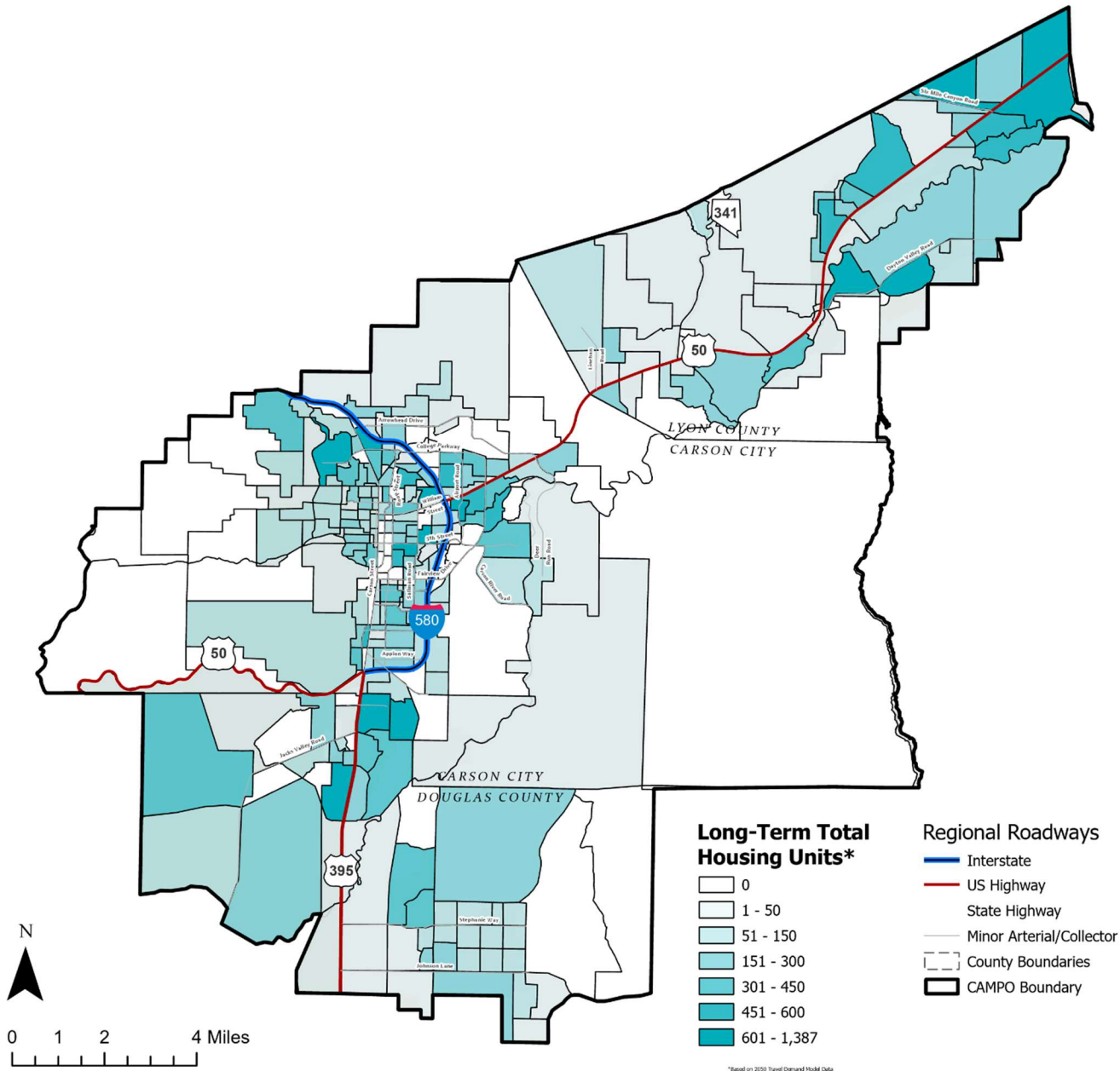
Source: Travel Demand Model Update, October2025.

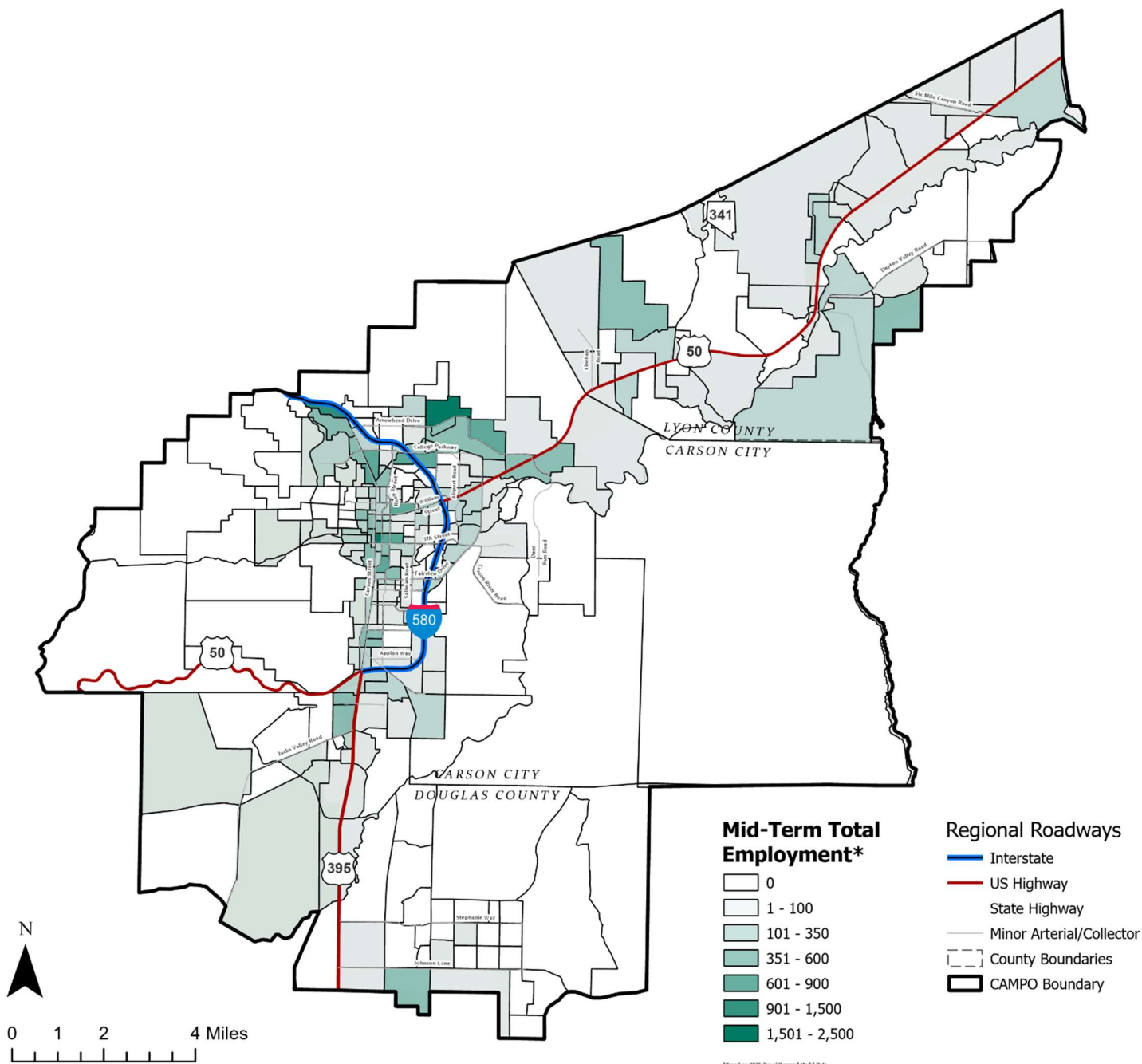## Figure 4.5: Employment by Transportation Analysis Zone (TAZ)

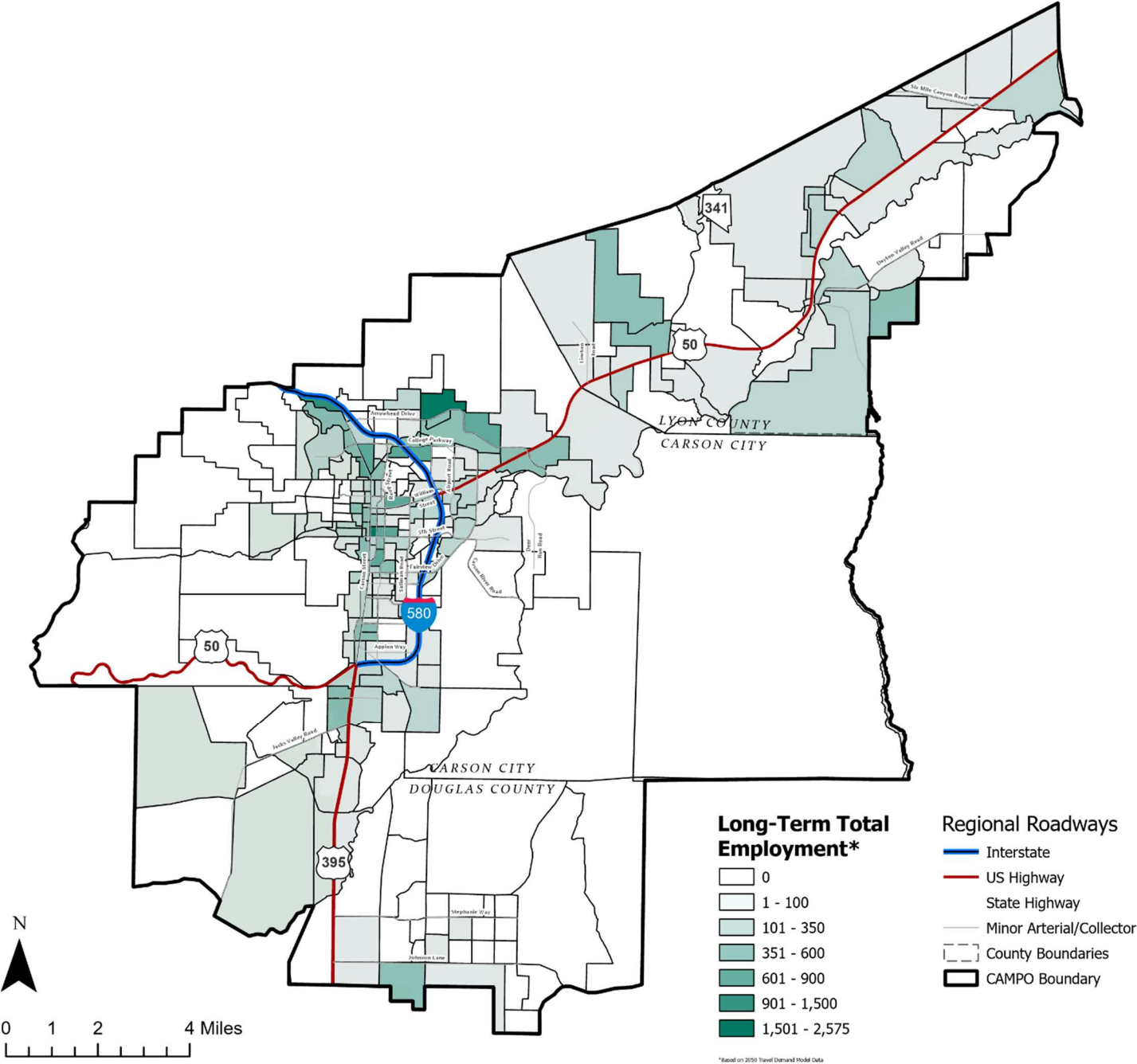# 2022

Source: Travel Demand Model Update, October2025

Figure 4.6: Employment by Transportation Analysis Zone (TAZ)

2035

Mid-Term Total Employment*

- 0
- 1 - 100
- 101 - 350
- 351 - 600
- 601 - 900
- 901 - 1,500
- 1,501 - 2,500

*Based on 2035 Travel Demand Model Data

Regional Roadways

- Interstate
- US Highway
- State Highway
- Minor Arterial/Collector
- County Boundaries
- CAMPO Boundary

Source: Travel Demand Model Update, October2025.

Figure 4.7: Employment by Transportation Analysis Zone (TAZ)

2050

Long-Term Total Employment*

- 0
- 1 - 100
- 101 - 350
- 351 - 600
- 601 - 900
- 901 - 1,500
- 1,501 - 2,575

*Based on 2050 Travel Demand Model Data

Regional Roadways

- Interstate
- US Highway
- State Highway
- Minor Arterial/Collector
- County Boundaries
- CAMPO Boundary

Source: Travel Demand Model Update, October2025.

4.3 Travel Time Index (TTI) & Planning Time Index (PTI)

Travel Time Index (TTI) and Planning Time Index (PTI) are calculated using the Regional Integrated Transportation Information System (RITIS) utilizing data from mobile phones, vehicles, and portable navigation devices to track CAMPO transportation performance and prioritize future investments.

Table 4.1: Select Corridor TTI and PTI

Corridor Name	2021 TTI	2024 TTI	% Change TTI	2021 PTI	2024 PTI	% Change PTI
Downtown Carson Street	1.32	1.22	-7.6%	1.60	1.33	-16.9%
South Carson Street	1.21	1.18	-2.5%	1.46	1.30	-11.0%
HWY 50 East	1.21	1.15	-5.0%	1.46	1.27	-13.0%
College Parkway	1.20	1.16	-3.3%	1.28	1.30	1.6%
US 395 (Minden)	1.12	1.16	3.6%	1.34	1.28	-4.5%

TRAVEL TIME INDEX (TTI)

Measures the unexpected delay or congestion experienced in a traffic versus a no-traffic situation. The TTI is the ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds.

SAMPLE SCENARIO

A **TTI** value of **1.3**, for example, indicates a **20-minute** free-flow trip requires **26 minutes**.
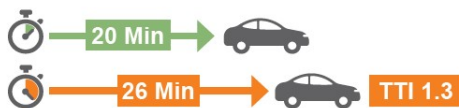
20 Min
26 Min — TTI 1.3

20 Minutes × 1.3 TTI = 26 Minutes

PLANNING TIME INDEX (PTI)

Measures the day-to-day variability of travel time experienced by drivers. It is calculated as the 95th percentile travel time compared to the free flow travel time. The 95th percentile is the 19th worst travel day in a month of 20 travel days.

SAMPLE SCENARIO

A **PTI** value of **2.0** suggests that travelers should budget **double** their free-flow travel time to reach their destination on time 95% of the time.

20 Min
40 Min — PTI 2.0

20 Minutes × 2.0 PTI = 40 Minutes

Reliable	Moderately Unreliable	Unreliable
1.00-1.30	1.31-1.80	1.81-3.00

Outputs from CAMPO's travel demand model on travel time are contained in Table 4.2. Due to the I-580 extension, constructed in 2017, the travel times, in general, between the years 2015 and 2021 have reduced. Over the long term, the travel demand model is forecasting increases in travel time during the afternoon peak travel times (PM) and along the U.S. 50 East corridor. CAMPO commute time continues to increase annually, as seen in Figure 5.2.

Table 4.2: Travel Times in Minutes between Metropolitan Planning Area Gateways

Travel Times in Minutes Between Metropolitan Planning Area Gateways		Year 2015		Year 2020		Year 2022		Year 2035		Year 2050	
From	To	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	U.S. Hwy 50 East (Near Chaves Road)	30.2	39.4	24.6	34.1	28.8	41.2	28.9	52.0	29.0	65.5
	U.S. Hwy 395 South (2000 feet south of Johnson Lane)	23.1	30.4	16.0	24.5	17.9	21.2	18.9	20.4	21.4	19.7
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	16.8	18.7	11.7	13.0	13.6	14.0	13.8	14.2	14.0	14.1
U.S. Hwy 50 East (Near Chaves Road)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	35.0	33.6	24.7	28.3	37.2	31.4	44.9	32.8	54.8	34.6
	U.S. Hwy 395 South (2000 feet south of Johnson Lane)	48.2	53.6	32.2	43.2	45.5	42.4	54.1	42.9	66.4	43.8
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	41.9	41.9	27.9	31.7	41.1	35.3	49.0	36.7	59.0	38.2
U.S. Hwy 395 South (2000 feet south of Johnson Lane)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	26.4	26.4	16.1	19.3	19.4	20.0	18.9	21.0	18.1	23.2
	U.S. Hwy 50 East (Near Chaves Road)	46.6	55.2	31.9	43.3	38.1	50.6	37.6	62.2	36.8	77.9
	U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	16.1	15.3	10.4	12.5	13.6	13.4	13.1	14.2	12.4	16.3
U.S. Hwy 50 West (2.7 miles west of U.S. Hwy 395)	U.S. Hwy 395 North (Carson City and Washoe County Line near Hobart Road)	17..3	18.5	11.7	13.0	13.7	15.1	13.8	15.6	13.6	15.6
	U.S. Hwy 50 East (Near Chaves Road)	37.5	47.3	27.5	37.0	32.4	45.8	32.5	56.8	32.3	70.3
	U.S. Hwy 395 South (2000 feet south of Johnson Lane)	13.3	19.1	10.3	17.8	12.3	15.7	13.1	15.0	15.0	14.1

Source: CAMPO's 2050 Regional Transportation Plan
*AM represents morning peak travel times and PM represents afternoon peak travel times
**Year 2015 data is from CAMPO's 2040 Regional Transportation Plan

4.4 Level of Service

Level of Service (LOS) is a measurement used to determine how well a transportation facility is operating from a traveler's perspective and is used to evaluate roadway sections based on a comparison of vehicle volume and roadway capacity. The travel demand model assigns a letter designation from A to F, with LOS A representing the best operating conditions, and LOS F representing the worst. As an example, Carson City Municipal Code Title 18 Appendix, Division 12.13.3.3 #5: Traffic Impacts and Mitigation states, "a traffic LOS D or better, in the context of providing a safe, efficient, and convenient transportation system, shall be maintained through mitigation of impacts from all conditions on all city maintained arterial, and collector roads and at city road intersections." The LOS is based on the average daily traffic, as opposed to using a peak travel period.

Outputs from CAMPO's travel demand model on LOS are provided on the following pages. Only the near- and long-term scenarios that incorporate fiscally constrained projects are provided. All other scenarios are contained within the model documentation report. Figures 4.8 - 4.10 delineate the LOS for all road segments in each of the three scenarios (base-year, near-term, and long-term). Between 2022 and 2050, the LOS will diminish primarily on U.S. Highway 50 East and U.S. Highway 395.

Figure 4.8 2022 Base Year Conditions: Roadway Level of Service (LOS)
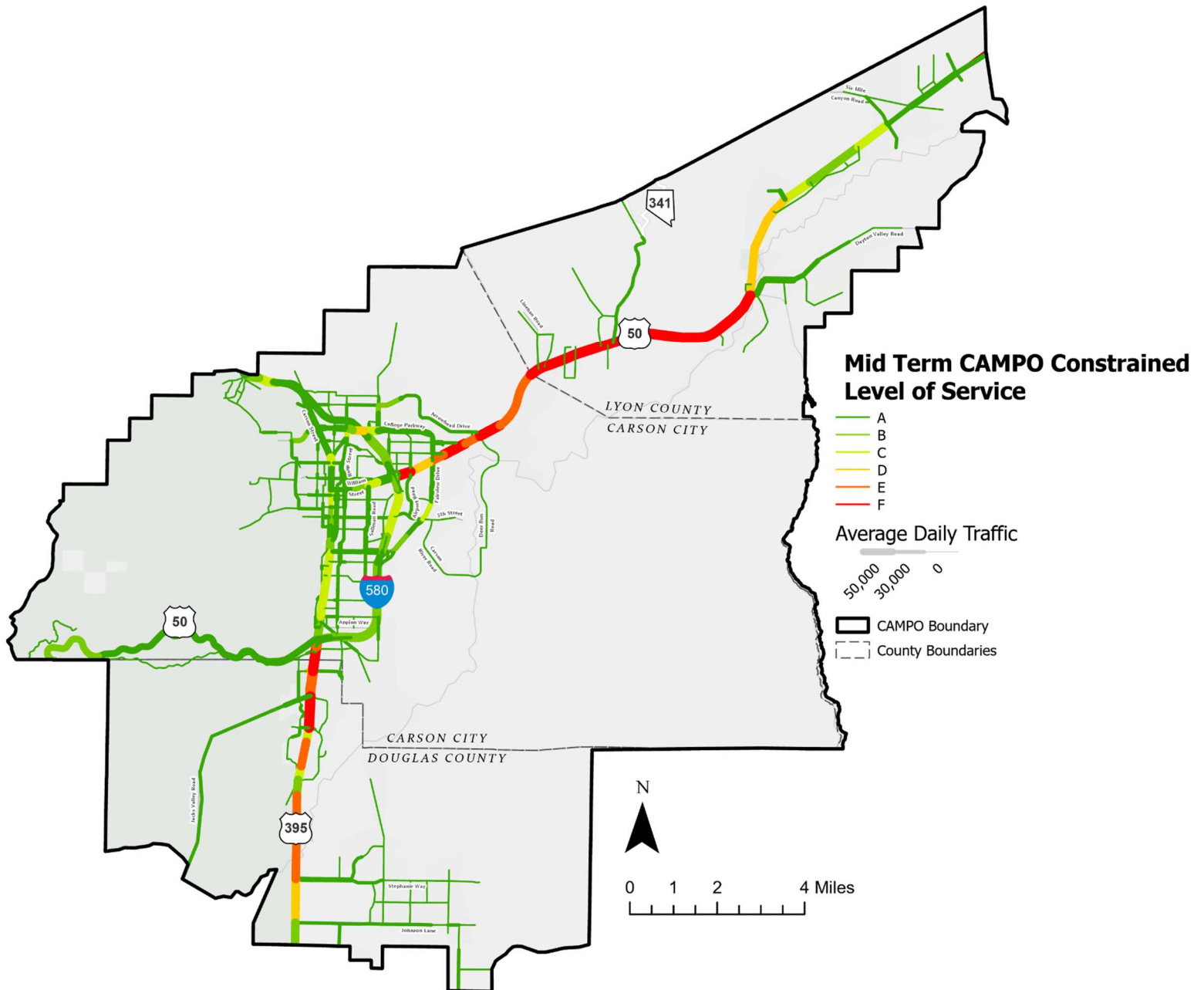
2022
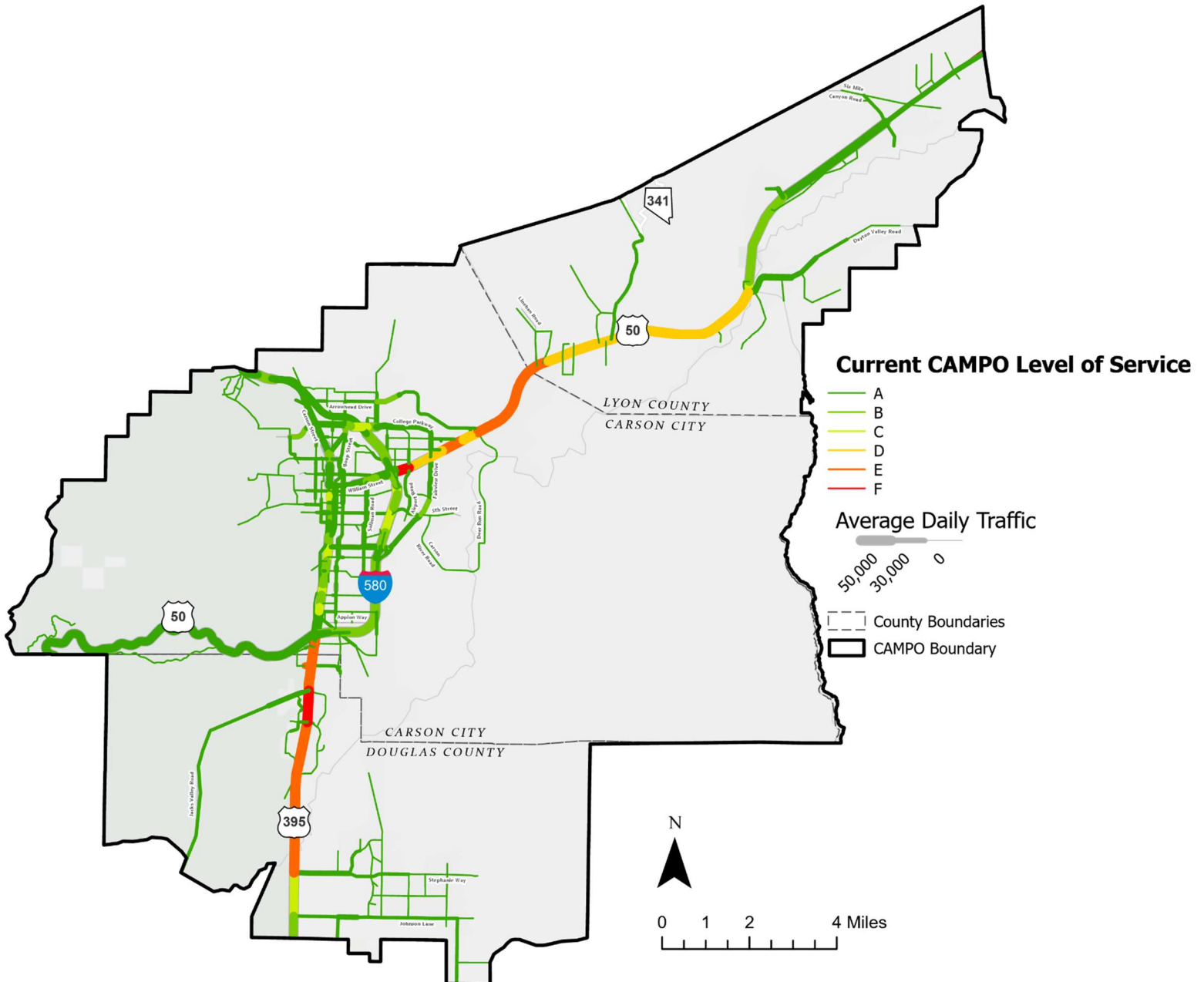
Source: Travel Demand Model Update, October2025.

Figure 4.9: 2035 Near-Term Conditions: Roadway Level of Service

2035

Source: Travel Demand Model Update, October 2025.

Figure 4.10: 2050 Long-Term Conditions: Roadway Level of Service

2050

Source: Travel Demand Model Update, October2025.

Chapter 5 HOW | Travel

How someone travels from place to place within the CAMPO Area is a matter of their choices, or lack of choices, and transportation mode options available. Many factors contribute to people choosing one transportation mode over another, including cost, both monetary and temporal, benefits, and convenience. Overwhelmingly, people choose to travel in vehicles throughout the CAMPO Area. With the Complete Streets Initiative, CAMPO is committed to planning for and supporting safe transportation infrastructure for all modes and all users.

5.1 Commuting

If you work outside your neighborhood, a commute to work is expected. Staff used three core variables to analyze commuting in the CAMPO region.

Percent of Vehicles Available

Commute Length In Minutes

Commute Type (Means of Transportation)

Figure 5.1: Total Households/ Percent Household Vehicles (2013-2023)
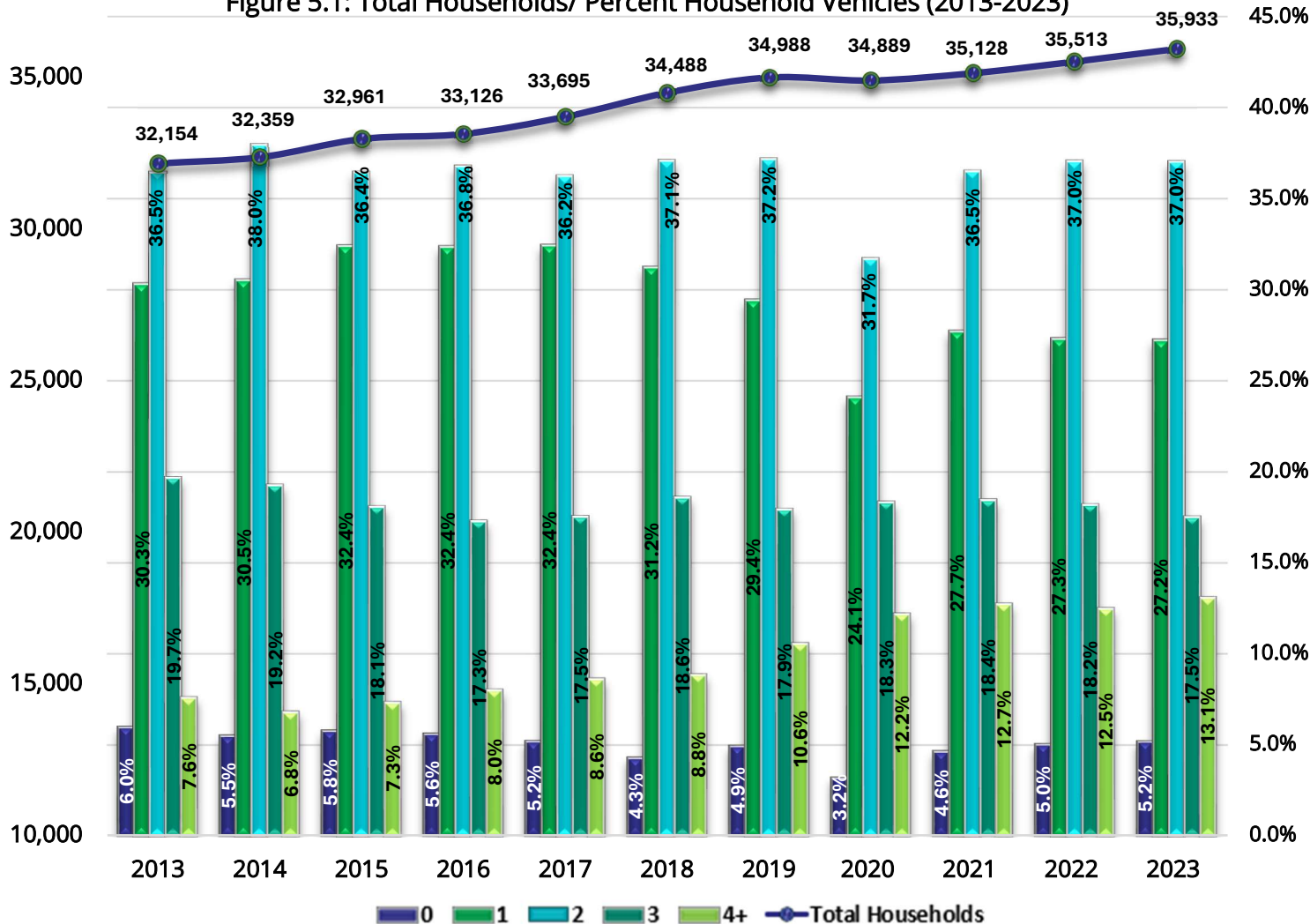
Source: ACS Household Size by Vehicles Available, Table B08201. Annual Estimates from American Community Survey (ACS) 5-year Estimates.

Figure 5.1 displays information on the number and percentages of vehicles per household. The amount and availability of vehicles in a household can be an indicator of reliance on public transit or non-motorized modes, as well as an indicator of an individual household's ability to make discretionary trips. In the CAMPO Area, over the last decade, there has been a steady 5% of households without vehicles, 1-, and 2-car households are most prevalent, covering 64% of households within the CAMPO area. 3-car households have retained an average of 18% of households, and 4+ car households have nearly doubled from 2,437 in 2013 to 4,697 in 2023.

Figure 5.2: Mean Travel Time to Work (Minutes) (2013-2023)
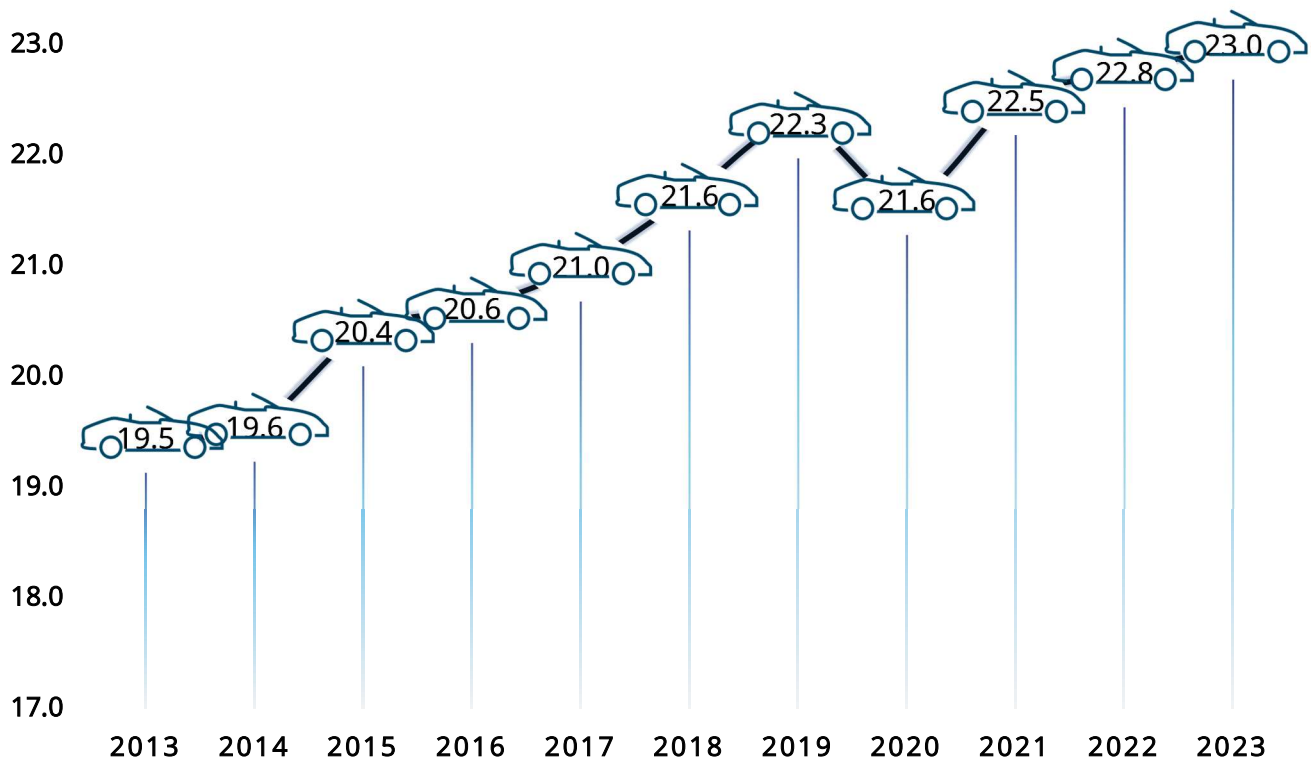
Source: ACS Selected Economic Characteristics, Table DP03. Annual estimates from American Community Survey (ACS) 5-year Estimates.

Figure 5.2 displays the mean travel time to work. In 2020, travel times decreased slightly from the previous year, most likely a factor of fewer people driving to work, school, or shopping and more people working from home during the COVID-19 pandemic. Over the last decade, travel times have increased by 15.7%, from 19.7 to 22.8 minutes, with the longest travel time recorded in 2022 as a 22.8-minute commute. The increase in commute times may relate to the Jobs-Housing balance seen in Figure 2.10 and is also reflected in the increase in commuters seen in Figure 5.8.

The United States Census Bureau "OnTheMap" tool provides data to analyze workers and residents within the CAMPO boundary. The latest Census OnTheMap data is from 2022. There are 19,320 workers within CAMPO who live and work within the CAMPO boundary. There are 21,111 workers who live within the CAMPO boundary but travel outside the CAMPO boundary to work. There are 15,867 workers who live outside the CAMPO boundary to work within CAMPO. See Figure 5.3 for more information.

Figure 5.4 Where CAMPO Workers Live

- Carson City, 37.9%
- All Other Locations, 24.6%
- Reno, 10.8%
- Dayton, 9.6%
- Sparks, 4.5%
- Indian Hills, 3.1%
- Gardnerville Ranchos, 2.8%
- Johnson Lane, 2.4%
- Gardnerville, 1.5%
- Fernley, 1.4%
- Silver Springs, 1.2%
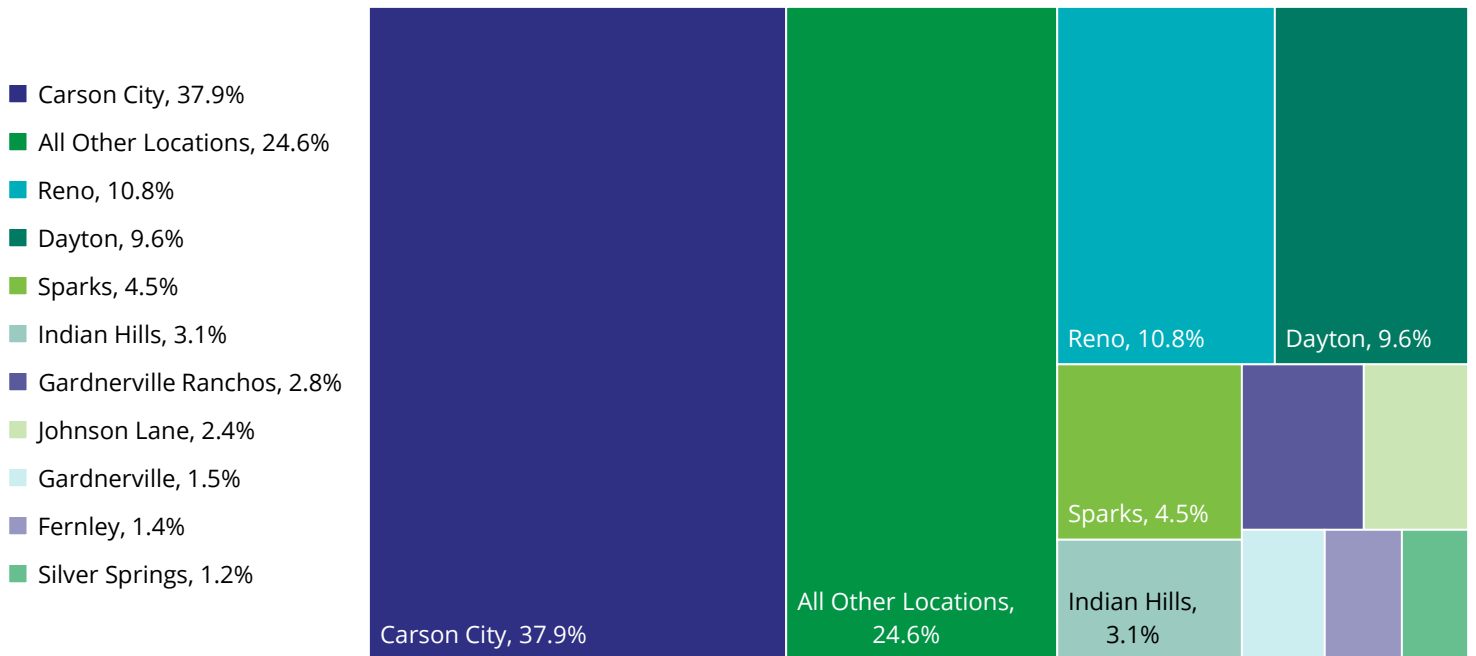
Figure 5.5 Distance/Direction Where CAMPO Workers are Travelling To/ From Home

Distance	Count	Share
Total All Jobs	40,431	100.00%
Less than 10 miles	17,380	43.00%
10 to 24 miles	13,628	33.70%
25 to 50 miles	5,476	13.50%
Greater than 50 miles	3,947	9.80%
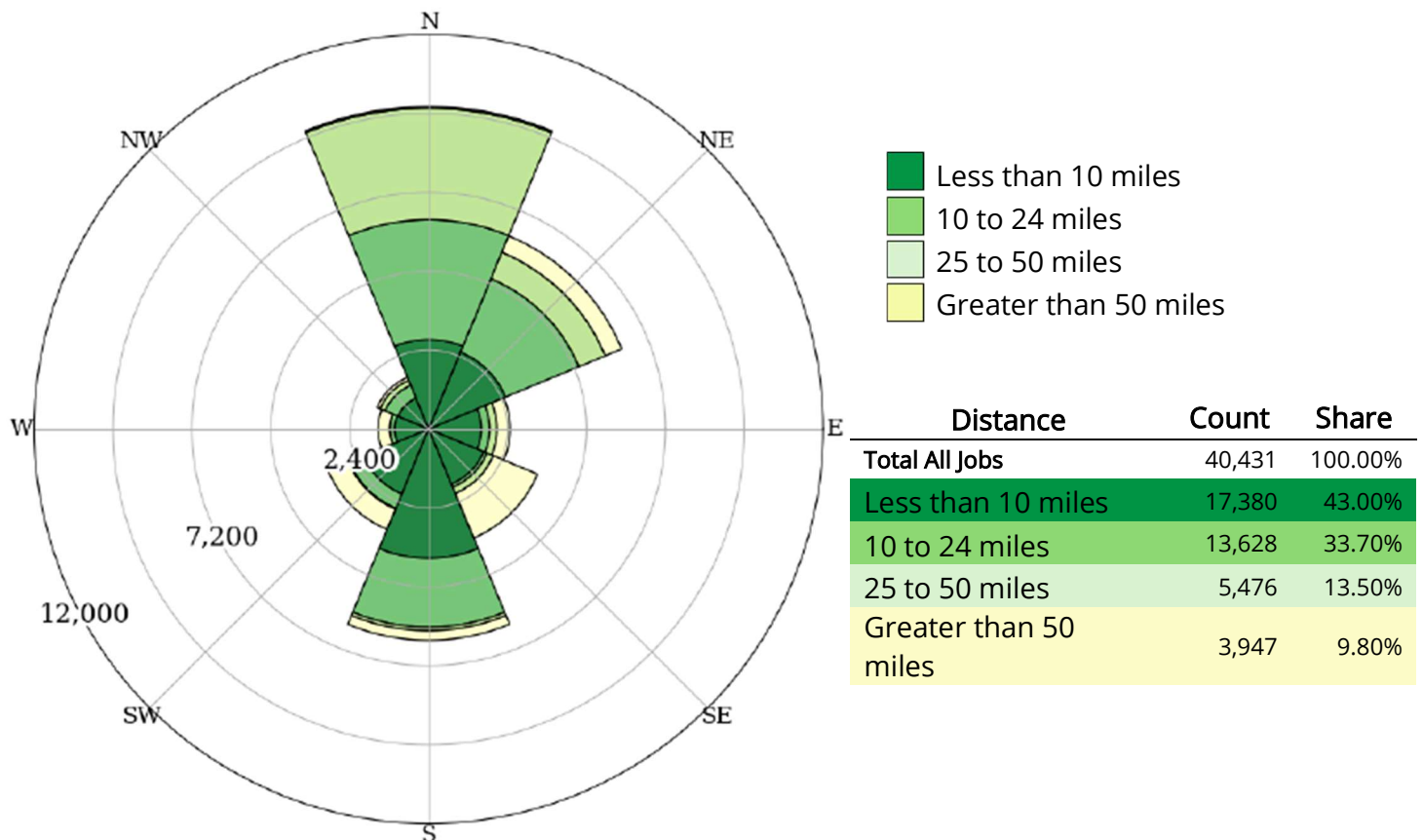
Figure 5.6 Where CAMPO Residents Work

- Carson City, 39.4%
- All Other Locations, 25.9%
- Reno, 17.7%
- Sparks, 5%
- Dayton, 3.1%
- Minden, 2.4%
- Indian Hills, 1.5%
- Incline Village, 1.4%
- Gardnerville, 1.4%
- South Lake Tahoe, 1.2%
- Stateline, 1.1%
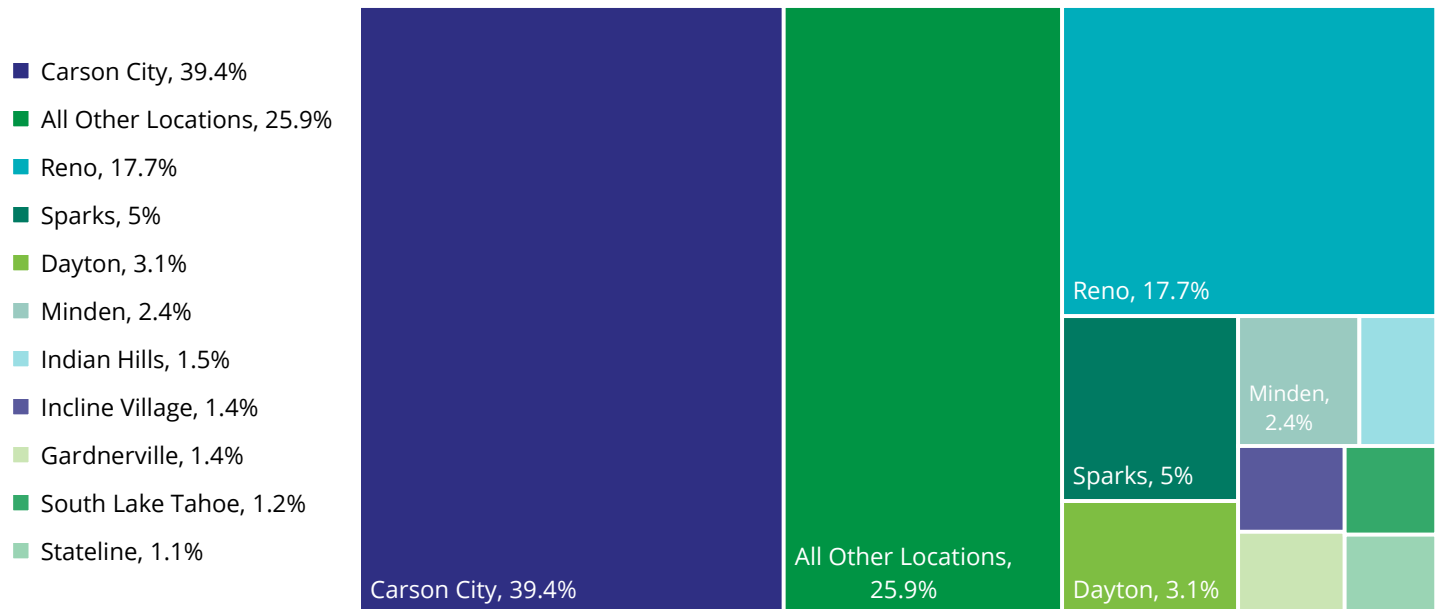
Figure 5.7 Distance/Direction Where CAMPO Residents are Travelling To/ From Work

Legend:
- Less than 10 miles
- 10 to 24 miles
- 25 to 50 miles
- Greater than 50 miles

| Distance	Count	Share
Total All Jobs	40,431	100%
Less than 10 miles	17,380	43%
10 to 24 miles	13,628	33.70%
25 to 50 miles	5,476	13.50%
Greater than 50 miles	3,947	9.80%
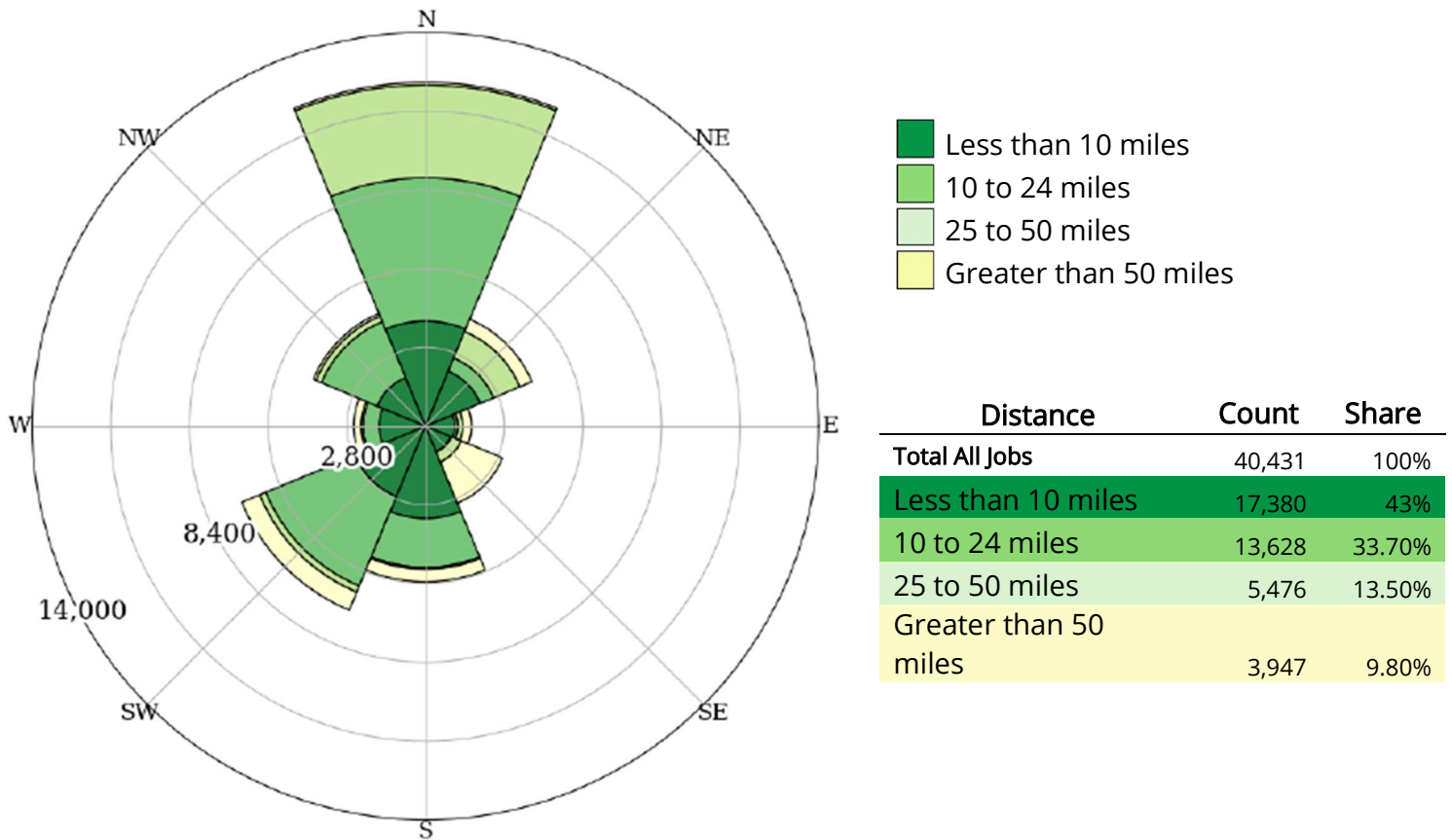
Figure 5.7 Radar Chart shows the distance and direction CAMPO residents travel to or from their work. Those workers who live outside the CAMPO boundary, have longer commutes and travel to or from the north, south, or southwest. Most CAMPO residents travel in all directions less than 10 miles (43%).

Figure 5.8: Commute Type: Working Population and Percent Commuting to Work (2013-2023)
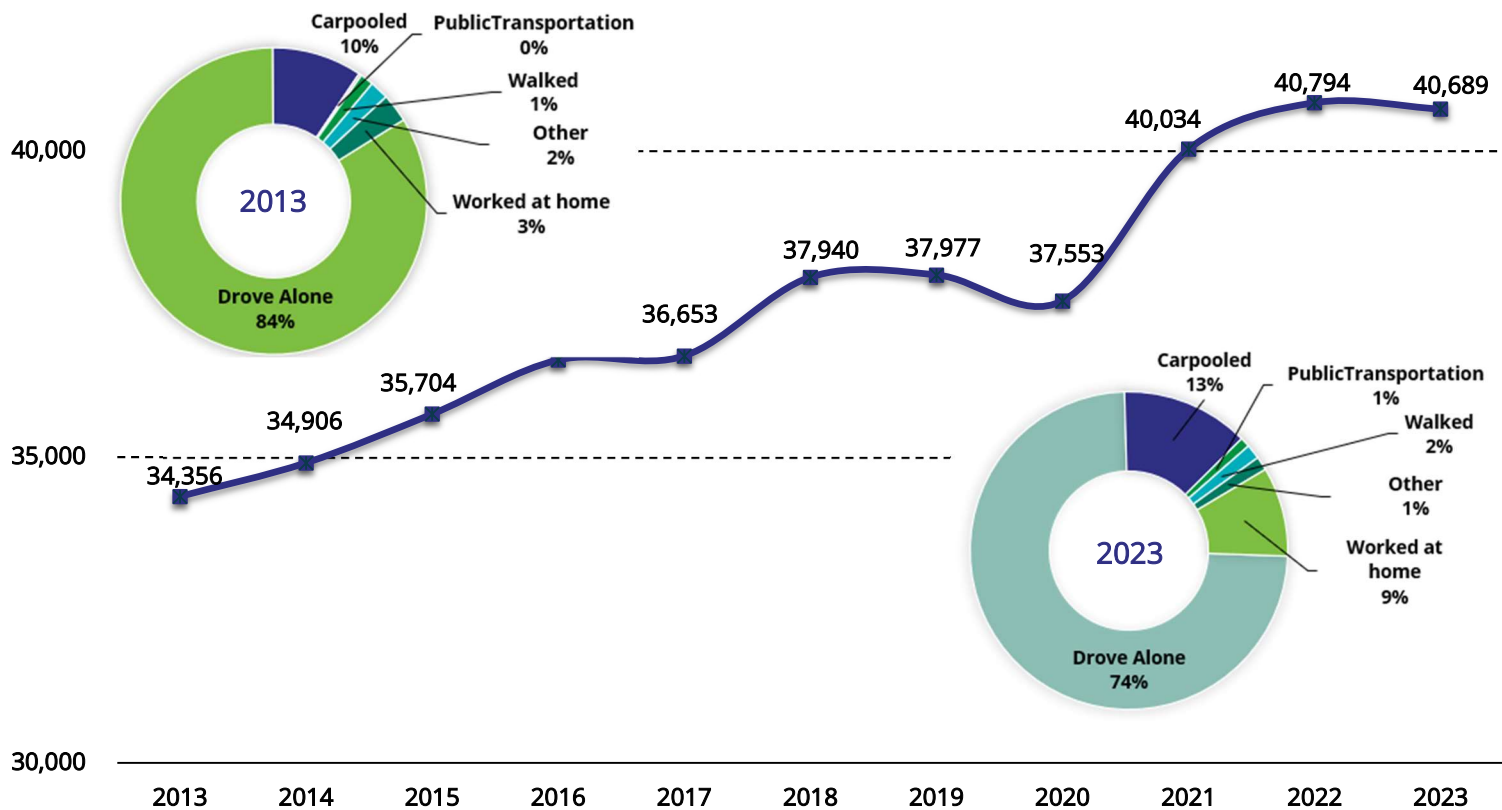
Figure 5.8 displays the travel mode to work for workers aged 16 years and over within the CAMPO planning area from 2013 to 2023. The number of total workers who report commuting to work has increased by 18.4% over the last ten years. Consistently, CAMPO residents drive alone to work, though the percentage is trending downward from 84% in 2013 to 74% in 2023. Carpooling has increased three percentage points from 2013 to 2023. The percentage of workers that report "Worked at Home" tripled from 3% in 2013 to 9% in 2023. Since 2020, due to the COVID-19 pandemic, there has consistently been an increase in workers working from home.
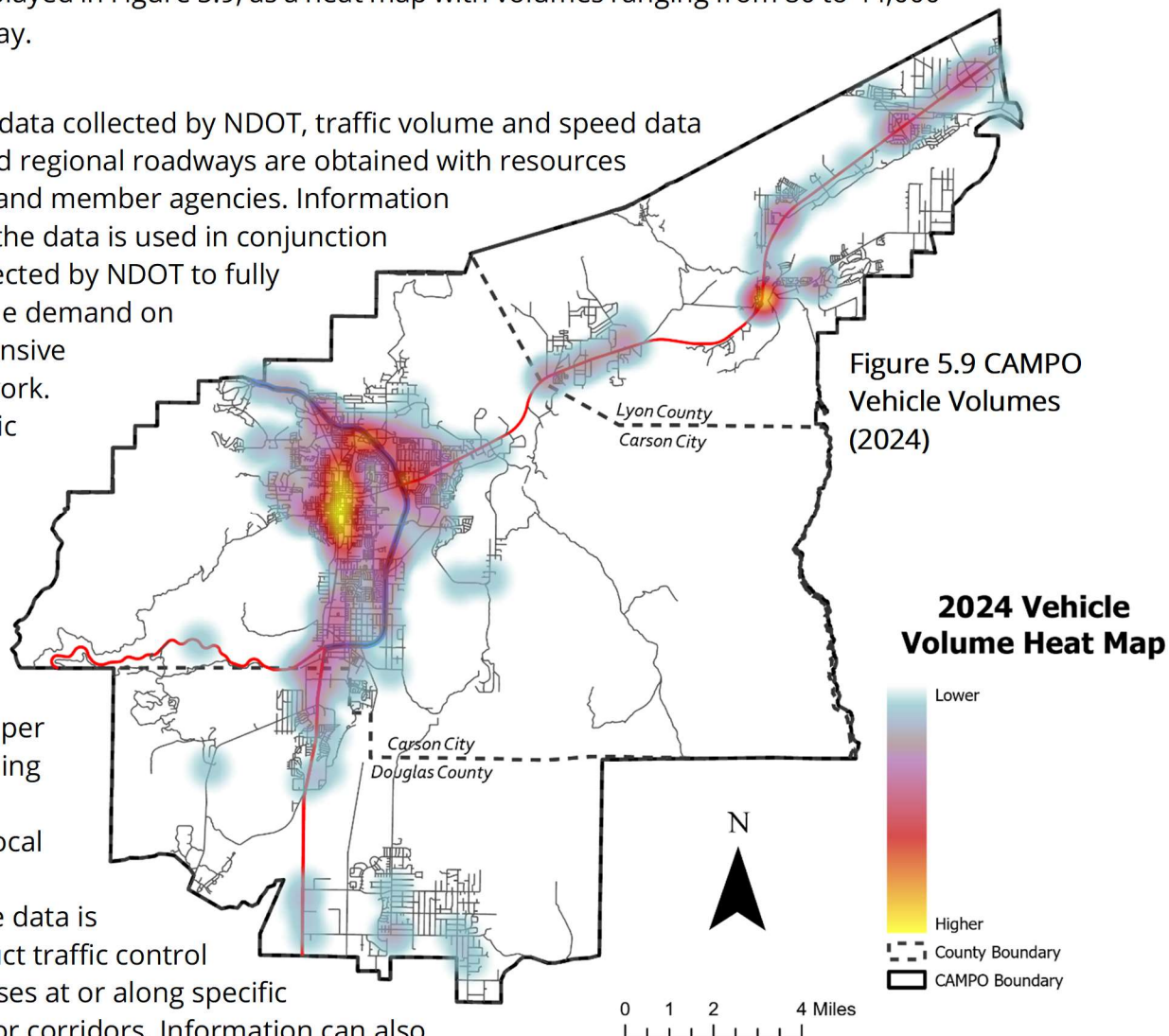
5.2 Vehicle Volumes

The NDOT's Traffic Information Division, in cooperation with FHWA, provides annual reports that contain details on the amount and type of traffic at certain locations along the National Highway System and other regional roadways. This information is used to validate CAMPO's travel demand model, plan short-term and long-term projects, and influence project design. Traffic Volume Data is published through an online application referred to as Traffic Records Information Access (TRINA)[i].

Vehicle volumes in TRINA are measured in AADT, or Average Annual Daily Traffic. Most roads in CAMPO have less than 3000 vehicles per day. The median, or average is 6,570 vehicles per day. The highest daily volumes are found on I-580, US 395, and US 50. Vehicle volumes from TRINA are displayed in Figure 5.9, as a heat map with volumes ranging from 80 to 44,000 vehicles per day.

In addition to data collected by NDOT, traffic volume and speed data along local and regional roadways are obtained with resources from CAMPO and member agencies. Information derived from the data is used in conjunction with data collected by NDOT to fully understand the demand on the comprehensive roadway network. CAMPO's traffic counters are commonly deployed by Carson City staff in response to a citizen or private developer inquiry regarding volumes or speeding on local and regional roadways. The data is used to conduct traffic control warrant analyses at or along specific intersections or corridors. Information can also

Figure 5.9 CAMPO Vehicle Volumes (2024)

Nevada Traffic Records Information Access - https://www.nevadadot.com/doing-business/about-ndot/ndot-divisions/planning/traffic-information

assist in identifying areas where vehicle speeds exceed the posted speed limit. Traffic counters have been deployed since 2016.
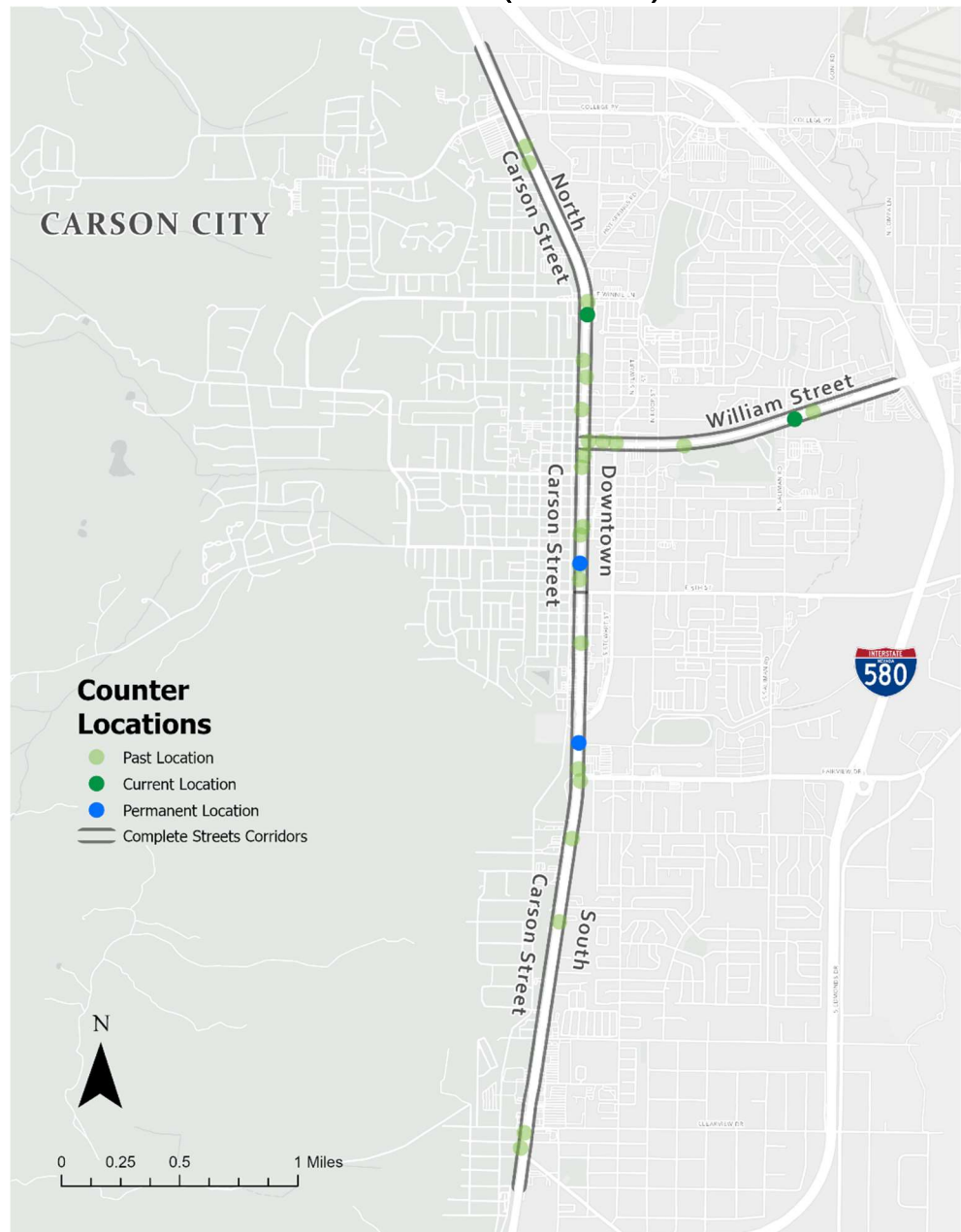
5.3 Complete Streets

Complete Streets are designed and operated to enable safe access and comfortable accommodation of users of all ages and abilities, including pedestrians, cyclists, movers of commercial goods, people with disabilities, public transportation vehicles and their passengers, older adults, children, and motorists. Since 2017, CAMPO staff have monitored pedestrian and bicycle activity on four corridors designated by the Carson City Board of Supervisors for Complete Streets treatment. The corridors are North Carson Street, East William Street, Downtown Carson Street, and South Carson Street. Complete Streets enhancements were completed in the Downtown Corridor (2017) and South Carson Street Corridor (2020). Complete Streets improvements are planned for East William Street in 2025 and North Carson Street beyond 2027.

Figure 5.10: Complete Streets Monitoring Locations (2017-2024)

Figure 5.10 displays pedestrian counter locations from 2017 through 2023. In 2023, two permanent counters were installed in the Downtown Carson Street Corridor and the South Carson Street Corridor.

5.4 Pedestrian Monitoring

Pedestrian volume is one of several ways to measure the success of Complete Streets investment. It is logical to expect Complete Streets treatments to induce pedestrian demand, increasing in pedestrian use of the improved corridors. However, factors beyond roadway improvements, such as adjacent land use also play a role in a corridor's attractiveness to pedestrians. Therefore, a lack of growth from year to year does not mean that the investment is not worthwhile. Significant increases in utilization may take multiple years to manifest in the data, which is why continued monitoring is imperative.


Pedestrian Counter in Downtown Carson City

Figure 5.11: Average Daily Pedestrian Volumes by Complete Streets Corridor (2018-2024)

Legend: 2018 2019 2020 2021 2022 2023 2024   3 – Year Average
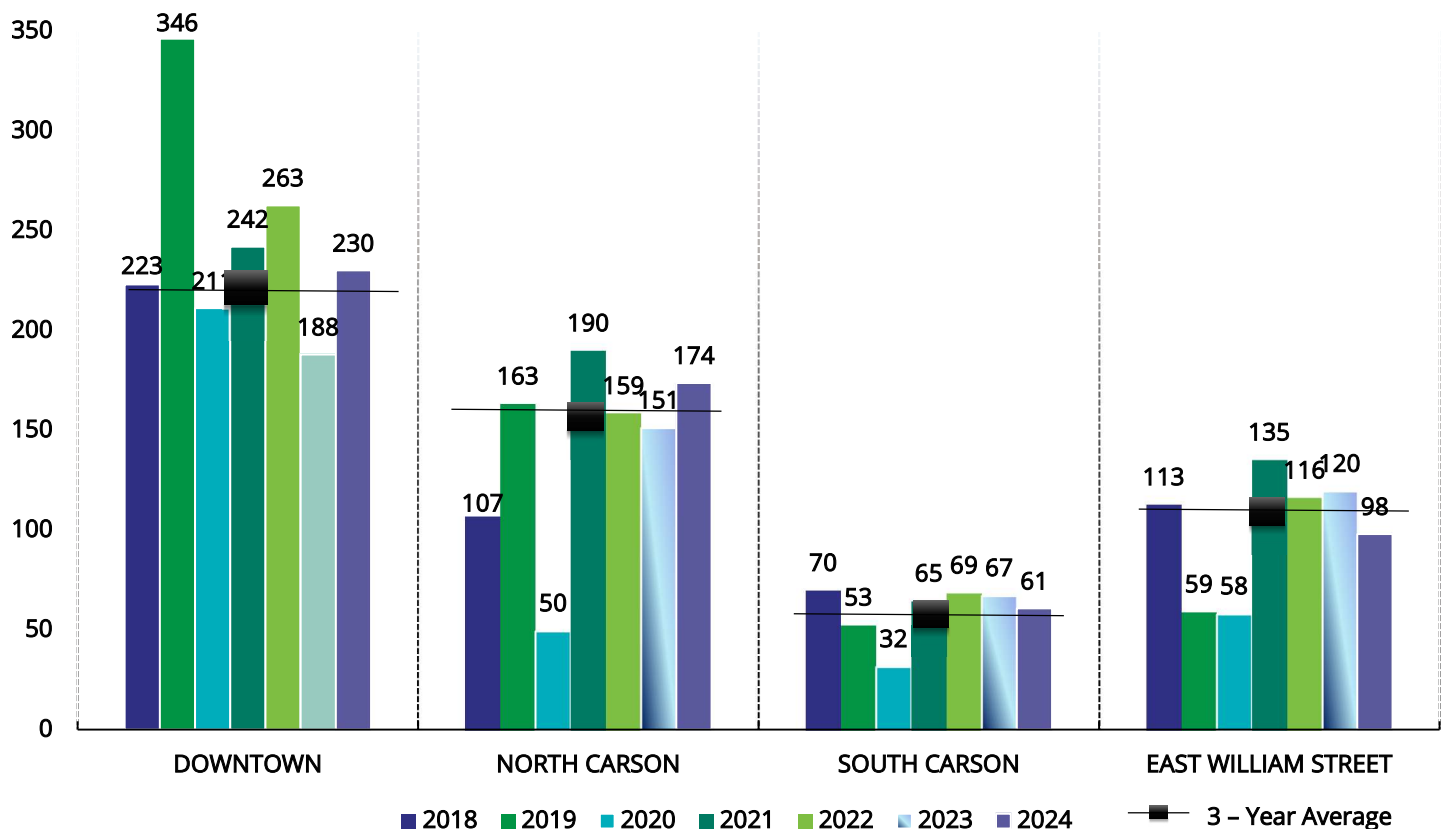
Figures 5.11 and 5.12 provide the average daily pedestrian volumes by a corridor from 2018 to 2022. The impact of COVID-19 is apparent in the 2020 data, which is below the 3-year average on all four corridors. Despite a national trend of increased pedestrian activity during the pandemic, counter data shows a decrease. This is likely due to the placement of the counters near schools and retail stores, both of which were frequently closed in 2020.

**Figure 5.12 Average Daily Pedestrian Volume per Season by Complete Streets Corridor and Year (2018-2024)**
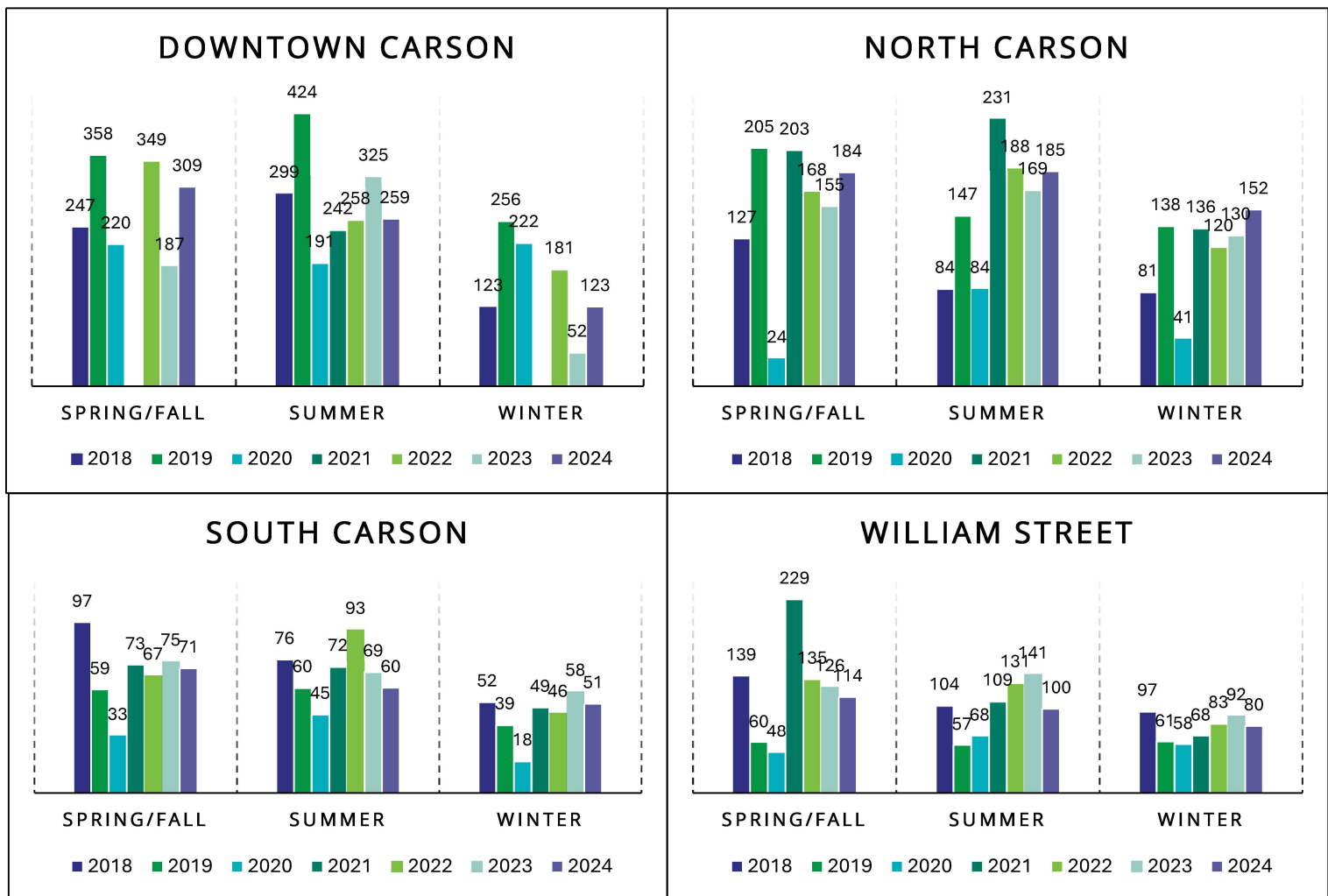
Notes:
1.Seasonal months are defined as follows: Summer (May, June, July, August); Spring / Fall (March, April, September, October); Winter (November, December, January, February). 2.Outliers have been removed. 3. Downtown Carson Street data was only collected during the summer season of 2021.

5.5 Bicycle Monitoring


Figure 5.13 Daily Bicycle Counts (2017-2024)
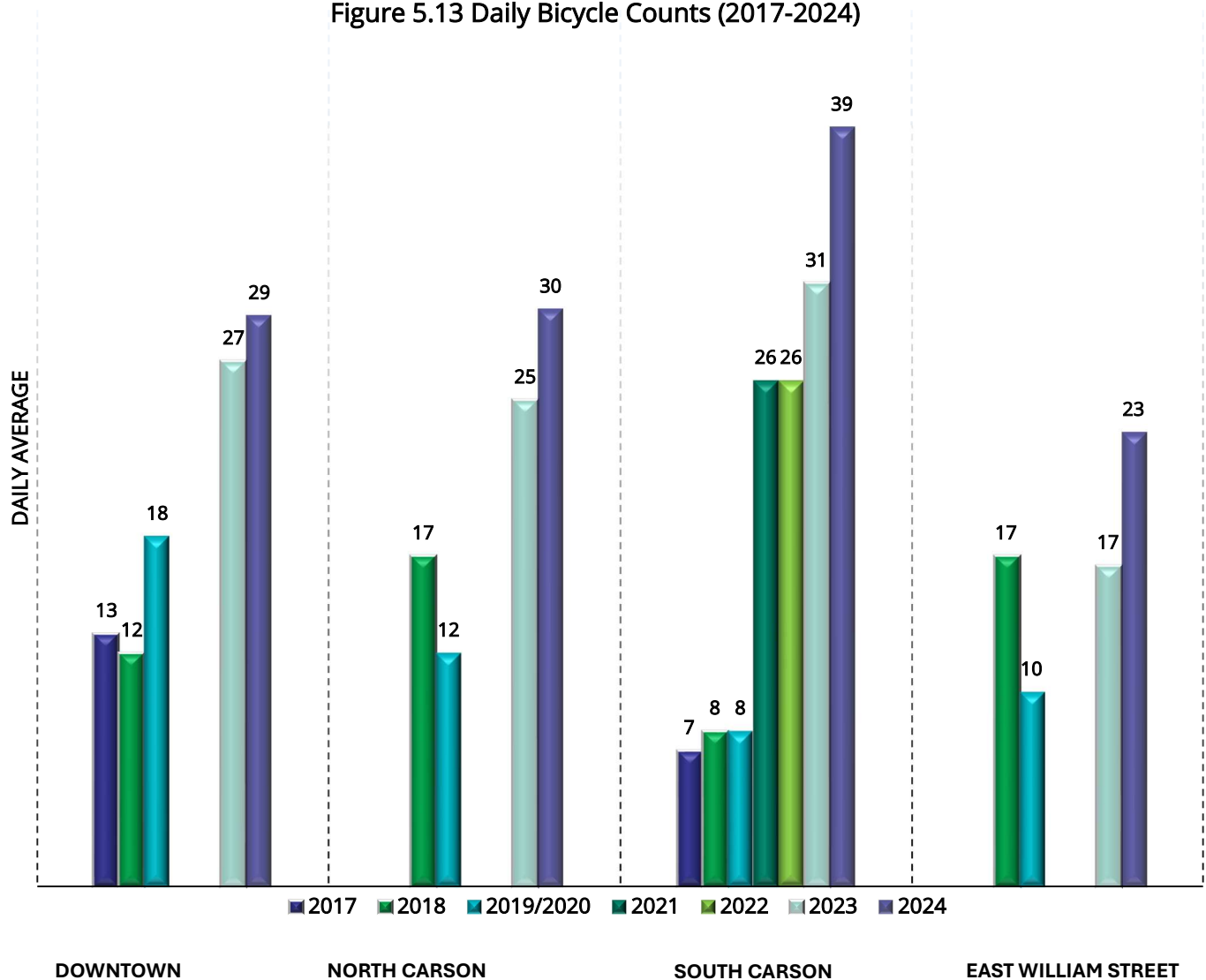
Daily bicycle counts will continue to improve with the installation of permanent counters in the completed Downtown and South Carson Complete Street corridors in 2023. CAMPO plans to install permanent counters along East William Street after construction is completed in 2026 and along the North Carson Complete Streets corridor.

5.6 Transit Monitoring

In the CAMPO Area, Jump Around Carson (JAC) is the primary transit provider. The JAC bus transit system is comprised of 62 bus stops along four fixed routes. As required by federal regulations, JAC provides a complementary paratransit service that provides "curb-to-curb" bus service for persons with disabilities who cannot access the fixed bus routes and are located within a mile of an established fixed route.

Figure 5.14: JAC Ridership (FY 2013 - FY 2025)
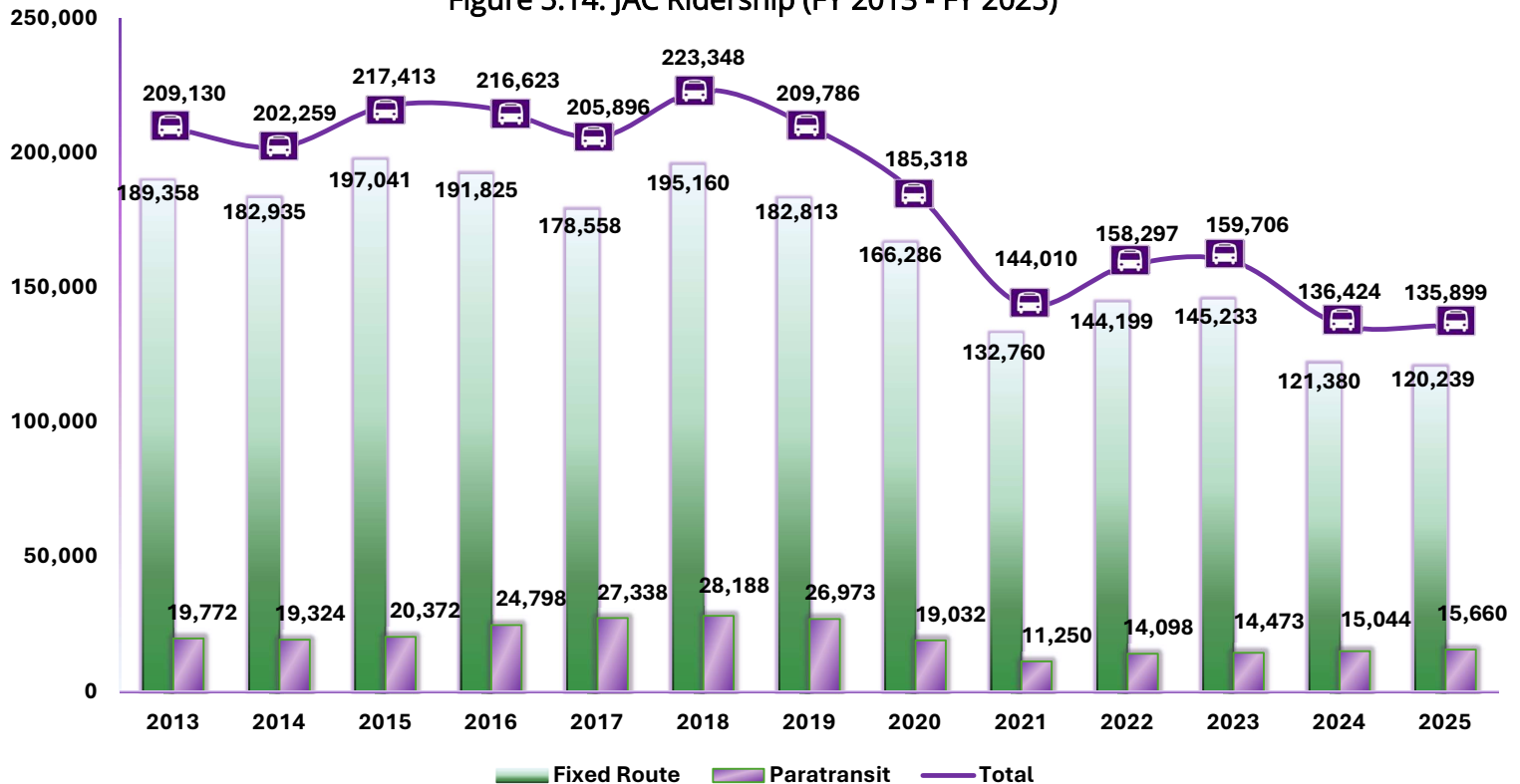
Source: Jump Around Carson National Transit Database, Annual Reports, 2013-2025

Figure 5.14 shows ridership data between 2013 and 2025. Ridership is defined as the number of boarding passengers. The demand for transit mobility in the United States and the Carson Area is significantly influenced by socioeconomic factors, such as demographics (age and gender), economics (income and occupation), public resources (transit infrastructure and performance), and land use. Fluctuations in employment levels, gas prices, headways, household income, bus cleanliness, and bus on-time performance can significantly impact annual ridership.

Ridership dropped by 12% in 2020, and again by 22% in 2021 to the lowest level of the decade. This was caused largely by the COVID-19 pandemic. There was another drop in

ridership from 2023 to 2024 as fares resumed. Beginning in 2020, in response to the COVID-19 pandemic, JAC waived fares. Ridership is slowly beginning to increase as public health conditions improve and normal travel patterns resume. Table 5.1 provides the annual performance reporting of key metrics utilized to understand the efficiency and effectiveness of JAC's transit operation from FY 2022 through FY 2025.

Table 5.1: Jump Around Carson Operating Statistics (FY 2022 - FY 2025)

	FY 2022		FY 2023		FY 2024		FY 2025	
	Fixed	Paratransit	Fixed	Paratransit	Fixed	Paratransit	Fixed	Paratransit
Annual Unlinked Trips	144,199	14,098	145,233	14,473	121,380	15,044	120,239	15,660
Vehicle Revenue Hours	13,330	5,761	14,784	6,121	14,777	6,164	15,173	6,262
Vehicle Revenue Miles	156,711	52,664	170,734	55,302	171,025	58,187	168,441	64,277
Operating Cost per Unlinked Passenger Trip	$10.00	$32.54	$9.86	$36.02	$13.58	$37.39	$16.96	$34.26
Operating Cost per Vehicle Revenue Mile	$9.20	$8.71	$8.39	$9.43	$9.64	$9.67	$12.11	$8.35
Operating Cost per Vehicle Revenue Hour	$108.19	$79.63	$96.88	$85.16	$111.52	$91.25	$134.39	$85.68
Number of Passengers per Revenue Hour	10.8	2.4	9.8	2.4	8.2	2.4	7.9	2.5
Number of Passengers per Revenue Mile	0.9	0.3	0.9	0.3	0.7	0.3	0.7	0.2
Number of Passengers per revenue day	494	48	478	48	398	49	396	52
Farebox recovery rate	0.00%	0.00%	3.16%	6.03%	4.52%	7.06%	3.36%	8.87%

Note: Farebox recovery rates in FY2022 is 0.0% due to JAC running fare-free service during the COVID-19 pandemic.

JAC maps and rider information can be found by visiting www.ridejac.com.

5.7 Public Participation

CAMPO is constantly seeking opportunities to increase meaningful public participation in the transportation planning process. To ensure continued improvement, the agency is committed to evaluating the effectiveness of outreach strategies being employed on a regular basis. Outreach strategies CAMPO has used throughout the calendar year 2024 planning process are summarized in Table 5.2. CAMPO will use a combination of qualitative and quantitative evaluation measures to create a more holistic view of success.

Table 5.2 Evaluation of CAMPO Public Outreach Strategies

Strategy	2024 CAMPO Public Participation Outreach
Participation in community events	2; Local Road Funding events 2; Carson City Vulnerable User Pedestrian Project outreach
Stakeholder meetings	1; Regional Transportation Stakeholder Coalition 2; Safety Stakeholder group
Council meetings/ presentations	12; CAMPO Board Meetings; 47 Agenda Items 1; Lyon County Board of County Commissioners 2; Mound House Citizens Advisory Board
Advisory committee meetings	1; RTSC Regional Transportation Stakeholder Coalition (20 members)
Informal, small group meetings (e.g., coffee chats)	None required
Open house events	None required
Public hearings*	None required
Electronic newsletters/email lists (eNews)	1; RTSC; Regional Transportation Stakeholder Coalition
Website*	Continual Updates; Addition of "Transportation Project Outreach & Engagement" Page
Social media: Facebook, Twitter, Instagram, YouTube, and/or NextDoor	Continual Updates Addition of CAMPO LinkedIn Page- December 2024 (316 Impressions, 9 reactions, 0 comments, 0 Reposts) CC Public Works Facebook; 295 impressions
Surveys	None required
StoryMap	1; 2024 ADA Transition Plan Story Map
Visualization techniques*	Continual updates
Press releases	2; Press Releases

Strategy	2024 CAMPO Public Participation Outreach
Media ad purchase/ sponsored TV or radio segments	• None required
Display ads	• None required
Legal ads*	• 4; Legal Ads in the Nevada Appeal
Mail notices	• None required
Comment forms	• 30; Public Comments at CAMPO meetings • 5; CAMPO Comment emails
Language translation*	• 1; JAC website page EN ESPAÑOL • 1; CAMPO updated Language Assistance Plan for JAC
ADA-accessible websites and digital materials*	• 16; webpages within the CAMPO/ CC website with continual updates. • 1; Addition of "Transportation Project Outreach & Engagement" page on the CAMPO website.

* Required by federal and/or state statute for some plans or document types

Chapter 6 |Ongoing / Future Efforts

Outlined within CAMPO's 2050 Regional Transportation Plan (RTP), CAMPO's established goals, objectives, and performance measures form the basis of CAMPO's performance-based planning framework that informs ongoing policymaking and investment decisions. CAMPO staff is updating the 2050 RTP, and the JAC Transit Development and Coordinated Human Services Plan. Staff will continue to reach out to the public to involve them in long-term transportation planning for the region. Staff will continue to bring forward the Local Road Safety Plan recommendations for the CAMPO area. Staff will begin the North Carson Complete Streets Feasibility Study in December 2025.

CAMPO staff will continue to monitor the changing socioeconomic factors, and the mobility needs of the region to appropriately respond to demands on CAMPO's transportation infrastructure. Staff would like to improve the WHAT: Mobility Network section of the Monitoring Report to report on the status of bicycle, pedestrian, and American with Disabilities Act (ADA) facility condition and connectivity progress in future years.

Staff will also continue discussions with NDOT to better understand the type and availability of data as it relates to annual monitoring and reporting by CAMPO. CAMPO staff will continue to analyze Census data to report reflections and observations.