MAP

MAKING ACTION POSSIBLE

for Southern Arizona

Annual Report 2024

Executive Summary

The award-winning MAP Dashboard project was created to measurably improve Southern Arizona through data-driven collective civic action and education. The MAP provides users with measures of our region's progress, as well as access to the latest information and research. MAP fills a gap by providing a common collection of information upon which to evaluate our community and collaborate to address our shared issues.

The Southern Arizona community continues to embrace the MAP Dashboard. The website had over 385,000 unique users since its launch with more than 850,000 page views. In addition, over 3,500 people receive the MAP monthly newsletter, 450 people follow on X Social (formerly known as Twitter), and 343 people follow on Facebook.

Since its founding, the MAP Dashboard has been recognized for excellence five times by international, national, state, and local organizations. Most recently, the MAP was featured in the University of Arizona's application for the Carnegie Classification for Community Engagement.

36 Core Indicators					
Economy	Education	Health & Social Well-Being	Infrastructure	Quality of Place	Workforce & Demographics
Business Growth	College Major	Behavioral Health	Air Travel	Air Quality	Employment Share by Industry
Employment Growth by Industry	Educational Attainment	Health Insurance Coverage	Bicycling Capacity	Cost of Living	Labor Force Participation Rate
GDP by Industry	High School Graduation Rates	Housing Cost Burden	Energy Use	Creative Occupations	Occupational Wages
Housing Affordability	PreK-12 Enrollment	Physical Well-Being	Internet Access	Outdoor Recreation Opportunities	Population Profile
Median Household Income	Student Achievement	Poverty Rate	Residential Water Use	Public Safety	Wage Distribution
Patents	Teacher Wages	Teen Birth Rate	Transportation to Work	Voter Turnout	Working Age College Graduates

The content on the MAP Dashboard is constantly expanding and changing in response to the most pressing community issues. In addition to the 36 core data updates found in the Economy, Education, Health & Social Well-Being, Infrastructure, Quality of Place, and Workforce & Demographics categories in 2023, 19 feature articles appeared on the website. These included articles on:

- Disability data overview
- Education and workforce trends for the Southern Arizona communities
- Wildfires in the West
- Factors of persistent housing insecurity
- Updates on Tucson's housing market
- Arizona's water use by sector
- Taking care of our elderly: A public health concern
- Young people and vaping: A new addiction
- And many others

The MAP Dashboard highlights regional impact through the Community Spotlight. This Spotlight highlights how various organizations around Southern Arizona are using the MAP Dashboard. Each spotlight provides insight on how to get the most out of the MAP and inspire others on new ways to use the website. Community Spotlights in 2023 featured the Southern Arizona Leadership Council.

Community outreach and engagement is a key part of the MAP Dashboard. Researchers from the University of Arizona's Economic and Business Research Center frequently participate in print, radio, and television interviews. The MAP team and associated researchers gave 10 public presentations to local residents last year, reaching 1,481 attendees. These public presentations included events such as:

- MAP Presentation the Southern Arizona Home Builder's Association (SAHBA)
- Eller's Economic Outlook Luncheon and Breakfast with the Economists
- MAP 101 Training with the Community Foundation of Southern Arizona
- Bioeconomy MAP Talk
- MAP Presentation to the College of Science Department Heads at the University of Arizona
- And many other public gatherings

In 2023, the MAP Dashboard reviewed the Infrastructure category through a series of community surveys and meetings. This included a thorough review of each current indicator and a discussion with the public and infrastructure experts on what indicators are most relevant to our region. Community input on the MAP's selection of core indicators and feature articles is vital to our mission.

Information from the MAP Dashboard website also reaches thousands of readers each month through a full-color feature in the Sunday Business section and Monday Health section of the *Arizona Daily Star.*

This annual report provides a snapshot of the MAP Dashboard as of spring 2024, using the most up-to-date annual data. Since federal agencies release this information with significant delays, the majority of the estimates are for 2022 and 2023. In some cases, in particular the health-related data, the most recent estimates available for all comparison regions are for 2021. That is due to the time required by federal agencies to acquire and report the data. This report summarizes the latest results for all indicators and highlights key changes during the past year. It also documents changes to the website during 2023, brings together website metrics, and summarizes outreach activities.

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FEATURED ARTICLE

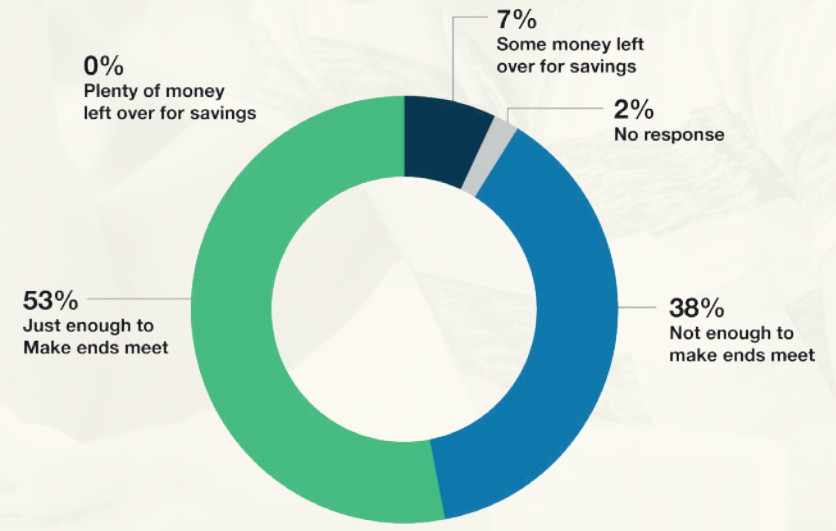
Living on the Edge: Factors of Persistent Housing Insecurity in Southern Arizona

Brian Mayer, Ph.D., Professor, School of Sociology, University of Arizona; Erin Heinz, Ph.D., Postdoctoral Research Associate, School of Sociology, University of Arizona; Jailyn Sloane, School of Sociology, University of Arizona

The MAP Dashboard funds White Papers every year from University of Arizona faculty to write on topics that are relevant to our region. Their expertise on the White Paper topic often provides a unique and in-depth perspective. The White Paper "Living on the Edge" written by Dr. Brian Mayer is an excellent example.

The economic and financial fallout caused by the COVID-19 pandemic significantly exacerbated an ongoing affordable housing crisis in Southern Arizona. At the height of the pandemic, some 10-15% of rental households across Arizona had fallen behind on their rent. Yet despite signs of economic recovery beginning to show in 2023, eviction filings in Pima County have rebounded to their pre-pandemic levels following a moratorium on new filings enacted by the federal government. Even after two years of federal rental and utility assistance provided to at-risk rental households, a significant number of households in Southern Arizona are at risk of losing their housing just as the state and national economy is poised to emerge from the pandemic. For these housing insecure individuals and families, the impact of the pandemic has not only limited their ability to afford rising rents and utility bills; multiple other intersecting social factors such as unemployment, food insecurity, poor health, and childcare burdens limit their capacity to participate equally in a full recovery. Many residents are struggling to "get by" each month *(Figure 1)*.

(Figure 1) **Percentage of Households "Getting By" Financially Each Month**



Data Source: Poverty in Tucson Field Workshop Survey, 2022

Key Findings & Contributions

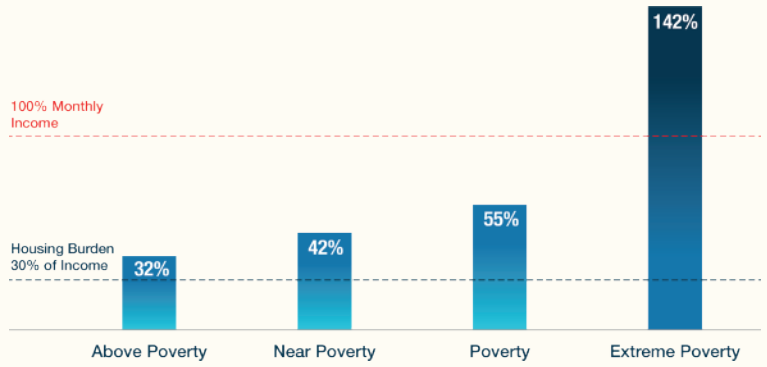
- As the pandemic began to recede, rising rents and consumer inflation significantly outpaced any gains in workplace wages and contributed to significant housing overburden and eviction filings in Pima County.
- Despite benefiting from eviction prevention assistance from Pima County in 2022, only 42% of survey participants believed that they would be able to independently pay their rent in 2023.
- Over half (66%) of households lived in crowded conditions due to financial strain and 22% reported living in unsafe and unhealthy conditions in their rental housing.
- Nearly half of all households surveyed (42%) predicted that they would be unable to come up with $500 if faced with an emergency situation such as an unexpected medical bill, car trouble, or family need.
- In addition to being significantly financially insecure, multiple intersecting social vulnerabilities were observed including: 58% of households reporting high levels of food insecurity, 49% of households reporting high levels of stress, and households with parents spending more than double the recommended 7% of household expenditures for monthly childcare.

Conclusions

Housing insecure households in Southern Arizona are living in a precarious position. Limited by the low supply of affordable housing, poor credit histories, and multi-layered financial, health, and employment situations, thousands of rental households are at the precipice of becoming homeless. The eviction rental assistance available to at-risk households during the pandemic provided an important, albeit temporary, social safety net that kept some 30,000 households safely housed. Absent such eviction prevention programs, it is likely that a substantial number of these vulnerable households will once again be facing life on the street. Housing burdens are particularly heavy for those in poverty or extreme poverty, with stagnant household incomes being absorbed by ever-increasing rent. Housing burdens are particularly heavy for those in poverty or extreme poverty, with stagnant household incomes being absorbed by ever-increasing rent *(Figure 2)*.

Visit the MAP Dashboard to read the full-report.

(Figure 2) **Percent of Household Monthly Income Spent on Rent**



Data Source: Poverty in Tucson Field Workshop Survey, 2022

FEATURED ARTICLE

Arizona's Water Use by Sector

Jennifer Pullen, Senior Research Economist and MAP Dashboard Coordinator,
Economic and Business Research Center, Eller College of Management, University of Arizona

Have you ever wondered how much water you use daily? Or how much water is necessary to grow crops, fill your swimming pool, or in industrial processes? Arizona's water supply can be divided into three main categories: agriculture, domestic, and industrial use.

In 2019, the Arizona Department of Water Resources (ADWR) reported that 22% of the water supply went to municipal purposes, 6% to industrial uses, and 72% to agriculture *(Figure 1)*.

Arizona's water supply is used primarily for agriculture, domestic, and industrial purposes. Water is often supplied through public supply deliveries for domestic and commercial uses. Water can also be self-supplied through groundwater or surface water withdrawals, as is the case for the agricultural and industrial sectors. Arizona's water sources include the Colorado River and other in-state rivers, groundwater, and reclaimed water.

(Figure 1) **Arizona's Water Use by Sector in 2019**
(Source: Arizona Department of Water Resources)

The rate of residential water used per day varied substantially among the Arizona counties in 2015. Mohave County residents used 190 gallons per capita per day (GPCD), followed closely by Greenlee County at 187 GPCD. Gila and Yavapai Counties had the lowest rates of residential water use at 92 and 93 GPCD, respectively. Individual utility data is not readily available. However, the MAP tracks the GPCD for Tucson Water. Tucson Water's residential GPCD was 80 GPCD, well below Pima County's rate of 135.

FEATURED ARTICLE

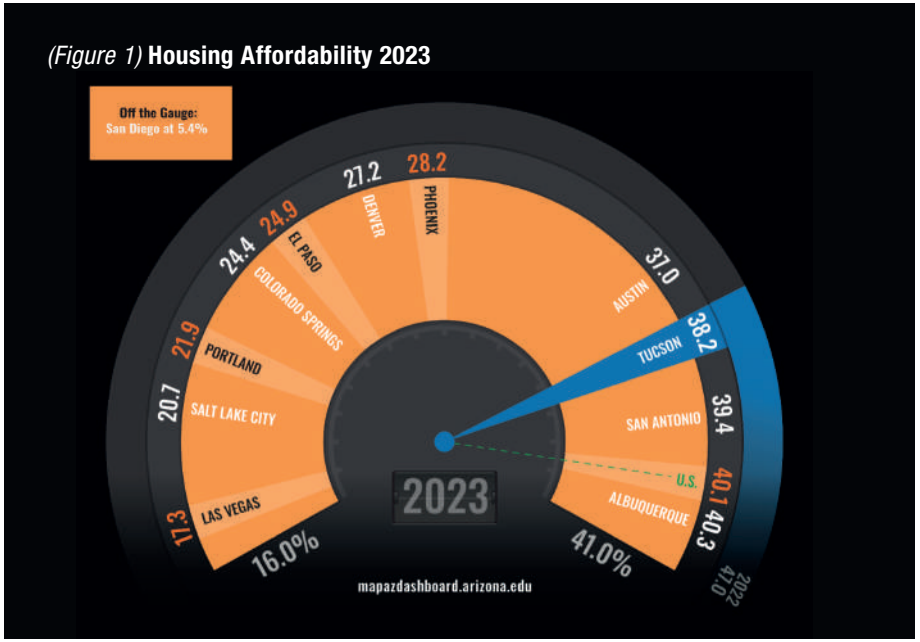
Housing Affordability at Record Low

Jennifer Pullen, Senior Research Economist and MAP Dashboard Coordinator,
Economic and Business Research Center, Eller College of Management, University of Arizona

Housing affordability continues to be a hot topic in Southern Arizona. The MAP Dashboard published several articles last year on housing. One of the key findings from those reports was declining housing affordability in Tucson and across the nation.

Housing affordability dropped to an annual record low in 2023 for the Tucson Metropolitan Statistical Area (MSA). Tucson ranked third among peer MSAs, behind Albuquerque and San Antonio, with 38.2% of homes sold in 2023 considered affordable to a family earning the local median income *(Figure 1)*. Tucson's housing affordability rate of 38.2% was a decline of 8.8 percentage points from 2022. Housing affordability in San Diego remains dismal compared to many of the MSAs tracked on the MAP, with only 5.4% of homes sold in 2023 considered affordable. Despite the significant decline, Tucson remains one of the most affordable places to buy a home compared to peer Metropolitan Statistical Areas (MSAs).

Home prices have increased rapidly over the past few years, far outpacing income gains in Tucson. Rapidly rising home prices, combined with spiking interest rates, have a direct impact on housing affordability and how much home an individual can afford to buy without being considered housing cost-burdened. Using each MSAs respective median family income, we can calculate the maximum amount someone could afford to spend each month on their mortgage payment without being considered housing cost-burdened. In 2022, someone earning Tucson's local median family income who put down 20% on their home and financed the remaining amount for 30 years using the average mortgage interest rate in the fourth quarter of 2022 (6.66%) could afford to purchase a house costing up to $306,400 without being considered housing cost-burdened. That amount was well below the median home price in the Tucson MSA in 2022 of $371,900. Using the same assumptions, those who live in Phoenix and earn their local median family income could afford to purchase a house costing up to $373,500, without being housing cost-burdened. That amount was also well below the median home price in the Phoenix MSA in 2022 of $477,900.



(Figure 1) **Housing Affordability 2023**

Check out the MAP website for upcoming articles on housing affordability and price trends in 2024, an updated article on how much you can afford to spend on your home purchase with current interest rates, and what percentage of homes in Tucson are rentals.

FEATURED ARTICLE

Young People and Vaping: A New Addiction

Beatriz Del Campo-Carmona, Research Economist, Economic and Business Research Center, Eller College of Management, University of Arizona

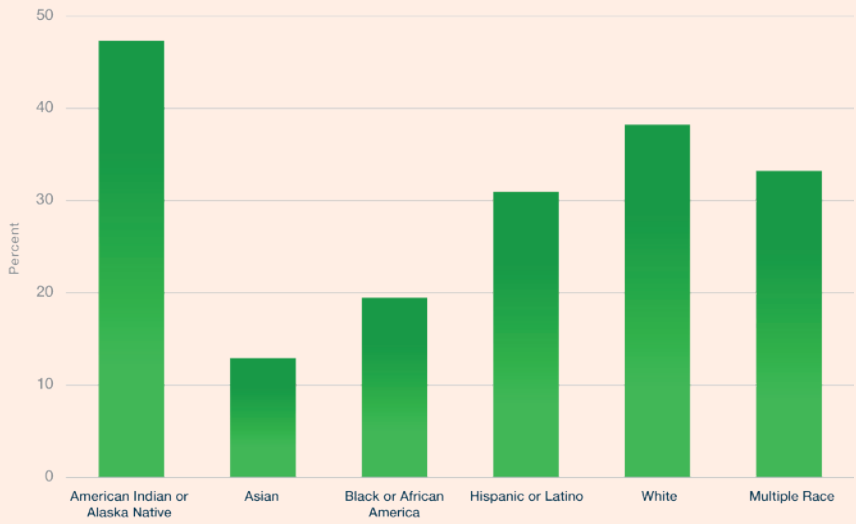
Electronic cigarettes, better known as e-cigarettes, are portable electronic devices designed to heat a liquid that usually contains nicotine, flavorings, and other chemicals that generate a vapor.

A report by the National Youth Tobacco Survey (NYTS) shows that e-cigarettes were the most commonly used tobacco product in 2021 among middle- and high-school students, with average usage rates of 2.8% and 11.3%, respectively. That prevalence means approximately 2.3 million U.S. youths (middle and high school students) currently use e-cigarettes.

In 2019, 50.1% of high school students in the U.S. reported having used electronic vapor products at least once in their lifetimes. Arizona reported a rate of 48.4%, slightly lower than the nation. In 2019, e-cigarette use was proportionally highest among American Indian/Alaska Natives, for whom almost half (47.3%) of the surveyed population representing that group reported at least one day of use during the 30 days before the survey. Asian high school students posted the lowest relative percentage of e-tobacco use at 13.0% *(see Figure 1)*.

According to the American Heart Association (AHA), vaping might pose serious but preventable health risks. Exposure to nicotine during adolescence can lead to addiction and cause long-term harm to brain development. E-tobacco contains nicotine, ultrafine particles, heavy metals, and volatile organic compounds. Another risk associated with the use of e-tobacco is lung injury. Based on the Centers for Disease Control and Prevention (CDC), by early 2020, there had been around 2,800 hospitalized e-cigarette or vaping-associated lung injury cases and 68 deaths in the U.S.

(Figure 1) **Percentage of U.S. Students Who Used Electronic Vapor Products by Race and Ethnicity (2019)**



High School Youth Risk Behavior Survey via MAP (mapazdashboard.arizona.edu)

MAP Dashboard

OVERVIEW

The award-winning Making Action Possible (MAP) Dashboard was formed through a unique partnership between the University of Arizona, Community Foundation for Southern Arizona, and Southern Arizona Leadership Council to develop a project to measurably improve Southern Arizona through data-driven collective civic action and education. Subsequently, the Pima Association of Governments and Sun Corridor Inc. joined the partnership in 2016 and 2018, respectively.

The partnership represents the non-profit and business communities, regional government, local economic development, and higher education. The MAP Dashboard fills a resource gap by providing a common collection of research and information upon which to evaluate and measure key socio-economic indicators in our community and collaborate to address our shared issues.

The socioeconomic indicators are grouped into six categories: 1) Economy, 2) Education, 3) Health and Social Well-Being, 4) Infrastructure, 5) Quality of Place, and 6) Workforce and Demographics. For each indicator, users can learn how Southern Arizona is doing, how it compares, and what the latest trends tell us about our progress. Users can compare Southern Arizona to the United States, states in the West, and select Metropolitan Statistical Areas (MSAs). With this information, Southern Arizonans can decide priorities, shape and pursue effective policies, and seek external funding opportunities. They can also use the data to drive business and organizational decisions, as well as build collaborative and cross-sector partnerships capable of taking action throughout our region.

While the MAP Dashboard focuses on state, county, and metropolitan area data, it also includes a wealth of information for cities and towns located in the Southern Arizona region. The Southern Arizona region commonly includes the following counties: Cochise, Graham, Greenlee, Pima, Pinal, Santa Cruz, and Yuma. The MAP Dashboard also includes data for all 15 Arizona counties and 41 of the largest cities, towns, and census-designated places within Southern Arizona.

In the nine years since its launch, the MAP Dashboard has received international, national, state, and local recognition. It was awarded the 2016 Award for Website Excellence by the Association for University Business and Economic Research and the 2016 DataViz Award from the Association for Public Data Users. The MAP Dashboard was one of three finalists for the Arizona Governors Award for Innovation in Academia and received the 2016 Common Ground Award from the Metropolitan Pima Alliance. Additionally, in 2018, the MAP received the impact award from the international Community Indicators Consortium for its demonstrated ability to drive positive community change in Southern Arizona. Most recently, the Council for Community and Economic Research (C2ER) awarded the MAP the 2021 Research Award for Data Collection, Dissemination, and Visualization for its contribution to the success of local, regional, or state community, economic, and workforce development initiatives. In 2023, the MAP was featured in the University of Arizona's application for the Carnegie Classification for Community Engagement.

Local community support makes the MAP Dashboard possible. Funding partners include the Community Foundation for Southern Arizona, Pima Association of Governments, the Southern Arizona Leadership Council, Sun Corridor Inc., and the University of Arizona. The University of Arizona's Economic and Business Research Center maintains, updates, and administers the MAP Dashboard website.

Financial support is also provided by community sponsors. Sustaining sponsors include the Thomas R. Brown Foundation, Tucson Electric Power, and Freeport McMoRan. Wells Fargo, the Arizona Community Foundation, and NüPoint Marketing are supporting sponsors, while Sundt Construction and Visit Tucson are contributing sponsors.

Economy

OVERVIEW

An economy is defined by the production, distribution, and consumption of goods and services. The decisions of individuals and firms interacting in this process determine how economic resources are allocated. The quality of a region's economy reflects the opportunities available to individuals and businesses. Strong economies typically result in a high standard of living, higher wages, and consistent job growth. The economic indicators included in this section help identify where Southern Arizona stands in comparison to other economies in the Western United States.

Economy Scorecard

INDICATOR	HOW ARE WE DOING?		HOW DO WE COMPARE?	RECENT CHANGE
BUSINESS GROWTH	8.2%	FROM 2021 TO 2022	☀	▲
EMPLOYMENT GROWTH	1.6%	FROM 2022 TO 2023	☁	▼
REAL GDP	1.9%	FROM 2021 TO 2022	⛅	▼
HOUSING AFFORDABILITY	38.2%		☀	▼
MEDIAN HOUSEHOLD INCOME	$64,323		☁	▲
PATENTS	16.8	PER 10,000 WORKERS	☀	▲

☀ Ranked in Top 1/3 ⛅ Ranked in Middle 1/3 ☁ Ranked in Bottom 1/3 ☁ Ranked Last

MAP Scorecard "How Do We Compare?" Rankings Are Relative To The Following Peer Metropolitan Areas:
Albuquerque, Austin, Colorado Springs, Denver, El Paso, Las Vegas, Phoenix, Portland, Salt Lake City, San Antonio, and San Diego

mapazdashboard.arizona.edu

NOTABLE ANNUAL CHANGES

- The Tucson MSA's growth rate continues to improve compared to peer MSAs in the number of establishments employing workers. Tucson's rate of 8.2% ranked third. That was a substantial improvement from 2020 when Tucson placed last.
- Since 2000, the Tucson MSA's inflation-adjusted median household income increased by 75.0%. In 2022, the median household income for the Tucson MSA was $64,323.

NOTE Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available

- Business growth in the Tucson MSA exceeded pre-recession levels in 2022 for the first time in sixteen years. Tucson's rate of 8.2% was well above the U.S. rate of 5.7%
- Total nonfarm employment in the Tucson MSA increased by 1.6% in 2023. That was slower than the nation and a decline from the 2022 growth rate of 3.6%.
- In 2022, the Tucson MSA posted an increase in inflation-adjusted GDP of 1.9%. Tucson's GDP growth is currently at its pre-pandemic trend.
- Housing affordability in the Tucson MSA continued to decline in 2023. Of the homes sold, 38.2% of them were affordable to a family earning the local median income. That was a decline of more than 35 percentage points from 2020.
- The Tucson MSA's median household income in 2022 of $64,323 remains well below the nation and many peer MSAs.
- At 16.8 patents per 10,000 workers, Tucson MSA's patent activity remains well above the state and national levels.

Education

OVERVIEW

Education is one key driver of economic success, both for individuals and for regions. Individuals benefit from education in a variety of ways, including higher productivity, higher wages, better health outcomes, and less need for publicly funded economic assistance. In addition, research has shown that the benefits of education spill over to the region as a whole. Local areas with high concentrations of highly educated residents tend to have better aggregate socioeconomic outcomes, such as higher per capita income, lower crime, and faster job and population growth. Thus, less educated residents also benefit by locating in regions with high educational attainment rates.

Education Scorecard

INDICATOR	HOW ARE WE DOING?	HOW DO WE COMPARE?	RECENT CHANGE
COLLEGE MAJOR	48.5% SCIENCE, ENG. OR RELATED	Ranked in Top 1/3	▲
EDUCATIONAL ATTAINMENT	35.0% BA OR BETTER	Ranked in Middle 1/3	▲
GRADUATION RATES	76.5% FOR ARIZONA	Ranked in Bottom 1/3	▼
PRE K-12 ENROLLMENT	39.9% IN EARLY EDUCATION	Ranked in Bottom 1/3	▼
STUDENT ACHIEVEMENT	270.7 AVG MATH SCORE IN AZ	Ranked in Middle 1/3	▼
TEACHER WAGES	$49,460	Ranked Last	▲

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NOTABLE ANNUAL CHANGES

- High school graduation rates in Arizona moved to the bottom among the Western states. Arizona's rate of 76.5% in 2021 was a decline from the previous year.
- In 2022, the four-year college attainment rate in the Tucson MSA continued to increase slightly. Tucson's rate of 35.0% remained above the national rate.

NOTE: Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available.

- In 2022, science and engineering or related fields accounted for the largest share of college majors of those living in Tucson. Degrees in arts, humanities, and other formed the second largest share, while business degrees ranked third.
- College attainment rates in the Tucson MSA varied significantly by race & ethnicity. In 2022, rates were highest for Asian residents of Tucson, followed by the White, non-Hispanic population. Rates tended to be lowest for American Indians, Hispanics, and other races.
- In Arizona, high school graduation rates were the highest for those in Greenlee County at 93.8%, while Cochise County had the lowest rate at 69.9%. Pima County was just ahead of Cochise County at 72.0%.
- Since 2000, Arizona has surpassed all 10 Western states with charter schools accounting for 24.0% of all public schools in 2022.
- In 2023, 41.0% of third-grade students in Arizona passed the AASA English Language Arts (ELA) test. Pima County's rate was slightly lower at 40.0%.
- Secondary school teachers in the Tucson MSA earned a median wage of $49,460 in 2023. That placed Tucson last among peer MSAs. After adjustment for cost of living, Tucson remains near the bottom of peer MSAs in second-to-last place.

Health & Social Well-Being

OVERVIEW

Indicators in this section identify critical trends in the health and social well-being of Southern Arizona residents. Measures of physical and behavioral well-being provide information about the health of residents, which plays an important role in determining the overall quality of life. Households that are housing cost-burdened or whose income is at or near the poverty level are more likely to endure adverse social, economic, and health conditions. Likewise, those who lack health insurance coverage are at a greater risk for bankruptcy and illness. The data provide residents and policymakers with performance measures crucial to gauging the overall well-being of a region.

Health & Social Well-Being Scorecard

INDICATOR	HOW ARE WE DOING?		HOW DO WE COMPARE?	RECENT CHANGE
BEHAVIORAL HEALTH	5.2	POOR MENTAL HEALTH DAYS	Ranked in Middle 1/3	▲
HEALTH INSURANCE COVERAGE	90.9%		Ranked in Middle 1/3	▶
HOUSING COST BURDEN	31.4%	OF HOUSEHOLDS	Ranked in Top 1/3	▼
PHYSICAL WELL-BEING	83.4%	GOOD OR EXCELLENT HEALTH	Ranked in Bottom 1/3	▼
POVERTY RATE	14.9%		Ranked in Bottom 1/3	▼
TEEN BIRTH RATE	16.6	PER 1,000 FEMALES	Ranked in Middle 1/3	▼

Ranked in Top 1/3 · Ranked in Middle 1/3 · Ranked in Bottom 1/3 · Ranked Last

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NOTABLE ANNUAL CHANGES

- In 2021, those living in the Tucson MSA reported 5.2 poor mental health days each month. That was an increase from 2020 and ranked Tucson eighth among the 12 Western MSAs.
- The teen birth rate in the Tucson MSA has declined by 69.3% since 2006. In 2022, the rate of 16.6 births per 1,000 females aged 15-19 was lower than the state and the nation.

NOTE: Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available.

- In 2021, 17.7% of the Tucson MSA's population reported that they excessively drink. That was slightly lower than the nation's rate of 18.0%. Additionally, 15.1% of Tucson's population reported that they smoked in 2021.
- Health insurance rates in the Tucson MSA varied by race and ethnicity. In 2022, the Asian population had the highest percentage of health insurance coverage at 95.1%, while the Native Hawaiian and Pacific Islander population had the lowest at 71.7%.
- The percentage of households that were housing cost-burdened (paid more than 30% of their income in housing-related expenses) varied significantly among renters and homeowners in the Tucson MSA. In 2022, 21.1% of homeowners were considered housing cost-burdened, while renters had a rate that was more than double at 51.1%.
- In 2021, 83.4% of the Tucson MSA's population reported that their health was good or excellent. That ranked Tucson eighth among peers.
- The poverty rate in the Tucson MSA declined between 2015 and 2022. However, at 14.9% it remains several percentage points higher than the nation.
- In the Tucson MSA, Hispanic or Latino teens had the highest birth rate among the races and ethnicities reported in 2022, with 22.8 births per 1,000 females aged 15-19. The teen birth rate for Black or African Americans was 16.4 and 8.2 for whites.

Infrastructure

OVERVIEW

A region's overall prosperity is related to the quality of its infrastructure. People rely on transportation and communication networks for access to employment, goods, and services. Businesses also rely on infrastructure to provide access to trade, raw materials, labor, and other inputs to production. The responsible use of natural resources by residents is also important, as energy and water use can affect long-term regional sustainability. Responsive and well-planned infrastructure results from a collaborative process between residents and policymakers, improving current levels of service and meeting future demand. Data presented in this category identify key trends in infrastructure performance and provide a valuable basis to inform future decisions related to its development.

Infrastructure Scorecard

INDICATOR	HOW ARE WE DOING?		HOW DO WE COMPARE?	RECENT CHANGE
AIR TRAVEL	4.1	ANNUAL SEATS PER CAPITA	Ranked in Bottom 1/3	▲
BICYCLING CAPACITY	8.9	BIKE MILES PER 10,000 RESIDENTS	Ranked in Top 1/3	▲
ENERGY USE	13.0	CENTS PER KWH FOR AZ	Ranked in Middle 1/3	▲
INTERNET ACCESS	92.4%	HOUSEHOLDS W/BROADBAND	Ranked in Middle 1/3	▶
RESIDENTIAL WATER USE	146	GAL. DAILY PER CAPITA IN AZ	Ranked in Bottom 1/3	▼
TRANSPORTATION TO WORK	72.0%	PEOPLE DROVE ALONE	Ranked in Middle 1/3	▼

Ranked in Top 1/3 · Ranked in Middle 1/3 · Ranked in Bottom 1/3 · Ranked Last

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mapazdashboard.arizona.edu

NOTABLE ANNUAL CHANGES

- The number of departures per day at the Tucson International Airport in 2023 was 48. That was up significantly from the declines during the pandemic.
- In 2022, 12.1% of residents in the Tucson MSA reported working from home. That was up from a pre-pandemic rate of 4.6% in 2015.

NOTE: Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available.

- The Tucson airport had 4.1 seats available per person annually in 2022. That was a significant improvement from the losses experienced due to the coronavirus pandemic.
- The city of Tucson had the highest number of miles of bicycling infrastructure per 10,000 residents when compared to peer western cities.
- The state of Arizona had the third-highest average monthly electricity bill in 2022 at $138.10. Arizona's average monthly bill increased by 5.1% between 2021 and 2022. Arizona's relatively high electric bills are due to high levels of electricity consumption coupled with a higher-than-average price per kWh.
- In 2022, the percentage of those with broadband internet varied substantially by race and ethnicity in the Tucson MSA. The Two or More Race and white, non-Hispanic populations had the highest percentage at more than 93.0%, while the American Indian and Alaska Native population had the lowest rate at 81.5%.
- The city of Tucson reduced its residential water use in gallons per capita per day by 39 GPCD, or 32.2% over 24 years, from 1996 to 2020.
- Work from home rates have increased since the pandemic. That has decreased the Tucson MSA's percentage of those who drive alone to work to 72.0% in 2022. The Tucson MSA's mean commute time has remained steady since 2015, despite an increasing population.

Quality of Place

OVERVIEW

Indicators in this category capture a wide range of influences on quality of life. Individuals who feel safe in their homes and surrounding areas are more likely to be involved in their community, increase civic participation, and even overall outdoor activity. Likewise, good air quality may increase residents' ability to participate in outdoor activities. Another aspect of quality of place is access to cultural amenities, such as the arts, entertainment, and other creative activities. How an individual values the quality of a region may differ depending on a multitude of factors, such as race and ethnicity, age, socioeconomic status, gender, and personal preference. However, the indicators included in this category reflect a broad range of factors affecting the quality of life in a region.

Quality of Place Scorecard

INDICATOR	HOW ARE WE DOING?	HOW DO WE COMPARE?	RECENT CHANGE
AIR QUALITY	46.6% GOOD DAYS	Ranked in Middle 1/3	▼
COST OF LIVING	6.2% LESS THAN THE U.S.	Ranked in Top 1/3	▲
CREATIVE OCCUPATIONS	120.2 JOBS PER 1K RESIDENTS	Ranked in Bottom 1/3	▲
OUTDOOR RECREATION	15.0% NATIONAL PARK VISITS	Ranked in Top 1/3	▲
PUBLIC SAFETY	473.5 VIOLENT CRIMES PER 100,000	Ranked in Bottom 1/3	▲
VOTER TURN OUT	44.7% IN ARIZONA	Ranked in Middle 1/3	▼

Ranked in Top 1/3 · Ranked in Middle 1/3 · Ranked in Bottom 1/3 · Ranked Last

MAP Scorecard "How Do We Compare?" Rankings Are Relative To The Following Peer Metropolitan Areas:
Albuquerque, Austin, Colorado Springs, Denver, El Paso, Las Vegas, Phoenix, Portland, Salt Lake City, San Antonio, and San Diego

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- The Tucson MSA had the third lowest percentage of air quality days that were unhealthy or very unhealthy in 2023 at 1.9%. The Phoenix MSA had the highest at 23.3%.
- The cost of living in the Tucson MSA was 6.2% below the nation in 2022, ranking third among peers.
- Employment in creative occupations in the Tucson MSA was below the national average in 2023, at 120.2 jobs per 1,000 residents. Tucson ranked 11th among peer Western MSAs.
- In 2023, national park visits in the Tucson MSA increased by 15.0%. That was a significant improvement from the decline posted in 2022 and ranked Tucson second among peers.
- The Tucson MSA's rate of 6.7 homicides per 100,000 residents was the fifth-highest among peer MSAs in 2021. That was an improvement from 2020 when Tucson had the fourth-highest rate.
- During the 2022 midterm election, the voter turnout rate for the state of Arizona was 44.7%, 15.6 percentage points lower than the rate during the 2020 presidential election. The turnout in the Tucson MSA (Pima County) was slightly higher at 47.3%.

NOTABLE ANNUAL CHANGES

- In 2023, the Tucson MSA's percentage of good air quality days was 46.6%, down slightly from 2022.
- The Tucson MSA firearm fatality rate of 19.1 per 100,000 residents was the third highest compared to peers in 2021.

NOTE: Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available.

Workforce & Demographics

OVERVIEW

The indicators included in this section help identify the demographic mix and workforce characteristics of Southern Arizona compared to other regions in the Western United States. The data can provide government officials, policymakers, and planners with the information necessary to gauge demand for future resources. The type of resources a region may need in the future are highly dependent on the demographic mix and could range from educational needs to infrastructure to services, such as health care. Population growth is a measure of how well a community attracts and retains residents, which reflects economic opportunities and the quality of life. The workforce is a subset of the population and refers to those individuals who participate in the labor market. A highly educated and skilled workforce tends to generate greater economic opportunities for a region's residents.

Workforce & Demographics Scorecard

INDICATOR	HOW ARE WE DOING?		HOW DO WE COMPARE?	RECENT CHANGE
EMPLOYMENT SHARE	1.15%	JOB MIX DIF. VS. U.S.	Ranked in Top 1/3	▼
LABOR FORCE PARTICIPATION RATE	80.5%	AGED 25 TO 54	Ranked in Bottom 1/3	▲
OCCUPATIONAL WAGES	$44,990	MEDIAN	Ranked in Middle 1/3	▲
POPULATION	0.7%	2022-2023 GROWTH	Ranked in Top 1/3	▼
WAGE DISTRIBUTION	3.5=	HIGH WAGE ÷ LOW WAGE	Ranked in Top 1/3	➤
WORKING AGE COLLEGE GRADUATES	33.4%	AGED 25 to 64	Ranked in Bottom 1/3	▲

Ranked in Top 1/3 · Ranked in Middle 1/3 · Ranked in Bottom 1/3 · Ranked Last

MAP Scorecard "How Do We Compare?" Rankings Are Relative To The Following Peer Metropolitan Areas:

Albuquerque, Austin, Colorado Springs, Denver, El Paso, Las Vegas, Phoenix, Portland, Salt Lake City, San Antonio, and San Diego

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NOTABLE ANNUAL CHANGES

- The labor force participation rate for the prime working age (25-54) in the Tucson MSA increased by half a percentage point between 2015 and 2020 to 80.5%, while the nation saw a 1.3 percentage point increase.
- The population in the Tucson MSA increased by 0.7% in 2023, bringing the total population to 1,080,300 residents. That ranked Tucson with the fourth fastest growth among peers.

NOTE: Data refer to the Tucson Metropolitan Statistical Area (MSA) unless otherwise noted. Information published in this report uses the most up-to-date data available.

- In 2023, the government sector in Tucson accounted for the largest share of jobs at 19.0%. The government sector includes federal civilian, state, and local government jobs. University of Arizona employees are included in state government.
- The Tucson MSA posted lower male and female labor force participation rates than the nation. The higher national labor force participation rate among adults in their prime working years reflects a higher level of engagement in the labor market across the nation compared to Tucson.
- In 2023, the Tucson MSA's median wage for all occupations was $44,990, which ranked eighth among peer MSAs. That was an increase of 6.0% from 2022.
- The Tucson MSA had a higher share of the population that was 65 years and older at 20.4% compared to the national rate of 16.5%.
- In 2023, the 90/10 ratio for the Tucson MSA was 3.5, while the U.S. had a ratio of 4.2. The smaller the ratio, the less wage inequality. In Tucson, wage earners at the 90th percentile earned $103,340, which is 3.5 times more than workers at the 10th percentile.
- The Tucson MSA's working-age college attainment rate was 33.4% in 2022, which ranked Tucson ninth compared to peers.

Acknowledgements

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