

2008 COMMUNITY REPORT CARD: LIVABLE COMMUNITIES



PREPARED FOR
TUCSON REGIONAL ECONOMIC OPPORTUNITIES, INC. (TREGO)

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Livable Communities Report

Prepared by William P. Patton and Valorie Rice

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EXECUTIVE SUMMARY

This report discusses Tucson's status as a "livable community." It compares Tucson's performance on a set of indicators relative to 10 competitive cities. It gauges the progress Tucson is making over time to improve its performance.

The livable community indicators fall into three groups: 1) cost of living, 2) quality of life, and 3) environmental quality.

Cost of Living

The cost of living in Tucson is roughly the same as the average cost of living in the nation as a whole. Until recently, Tucson's cost of living was lower than the U.S. average.

Housing affordability in Tucson has plunged dramatically in recent years. In 2004, median income families could afford to buy 67.1% of the houses sold in the market. In 2007 they could only afford to buy 39.2% of the houses sold in the market. In 2007, Tucson ranked 7th out of the competitor cities in terms of housing affordability. However, declining prices in the local real estate market may improve housing affordability in the future.

Quality of Life

Tucson performs well on the average commute time. Tucson's average commute time is the third shortest commute time (25.7 minutes) of the competitor cities.

Tucson performance in terms of alternative transportation is mixed. The percentage of Tucson residents who carpool (11.8%) is ranked 7th out of the competitor cities, even though it is higher than the U.S. average (10.7%). The percentage of Tucson residents who use public transportation ranks in the middle of the competitor cities. The percentage of residents who work from home (4.8%) is higher than the U.S. average (3.9%) and ranks 5th out of the competitor cities.

Health care performance is measured by two indicators that are proxies for the affordability of health care and the availability of health care professionals. In Tucson, the percentage of adults without health insurance is average to other parts of the country.

The number of licensed physicians per 1,000 residents in Tucson compares very favorably with the other cities, ranking 2nd, with 300 physicians per 1,000 residents.

However, this number represents licensed physicians, not necessarily active, since Tucson tends to attract part time winter visitors and retirees.

Tucson performs poorly relative to its peer cities on both property and violent crime rates. Tucson's property crime rate and violent crime rate are significantly higher than the national average.

Environmental Quality

Arizona's energy use per capita is the second lowest of the eight competitor states.

Tucson's air quality is outstanding compared to competitor cities. Tucson is tied with Austin as the cities having the fewest number of days per year with unhealthy levels of air quality (1 day per year). Tucson and Austin also had the highest number of days with good or moderate air quality.

Tucson ranks in the middle of the 10 competitor cities in terms of the amount of public system water usage per capita.

Tucson's climate is outstanding for the amount of sunshine and the mild winter weather. However, the hot summer temperatures are detrimental to the quality of life part of the year.

Tucson is rapidly increasing the amount of local recycling. The number of households on curbside service is increasing. The tonnage of material recycled has tripled since 2002. The amount recycled as a percentage of landfill tonnage has increased from 10% in 2002 to 22% in 2007.

INTRODUCTION

The 2008 Community Report Card will be used to set a baseline and foundation to track Tucson's progress toward achieving a competitive economy for years to come. Information from the Community Report Card will be used by TREO to assess Tucson's competitive position relative to other regions that compete with it for jobs, workforce and companies. The Blueprint Mobilization Council will use this information to determine Tucson's relative strengths and weaknesses. The Council will then work with leading partner organizations to better position Tucson in a developing a highly skilled workforce, growing its job base, improving wages, and increasing regional prosperity.

The Community Report Card is divided into sections that represent the Power of Five categories that are considered essential to Tucson's economic progress. This section of the Report Card addresses the Livable Communities section of the report card.

The Power of Five consists of:

- High-Skilled/High-Wage Jobs
- Livable Communities
- Urban Renaissance
- Collaborative Governance and Stewardship
- Educational Excellence

SELECTION OF THE INDICATORS

The TREO Community Report Card selected a wide array of Livable Communities indicators to judge Tucson's current performance and progress in achieving the goals set forth in the Livable Communities section of the TREO Economic Blueprint. For the purpose of this report, the indicators fall into several broad categories: 1.) cost of living, 2.) environmental quality, and 3.) quality of life.

A list of the Livable Communities indicators is shown below. The indicators have been displayed based on their respective categories.

Cost of Living

- ACCRA Cost of Living Index
- Poverty rates
- Housing affordability
 - Tucson – median home price, median income and home affordability
 - Median home price
 - Housing Opportunity Index

Quality of Life

- Transportation
 - Average commute time
 - Percentage of drivers who carpool
 - Percent of people who use public transportation
 - Percent of residents who work from home
- Population Density
- Health Care
 - Percent of adults without health insurance
 - Number of physicians per 1,000 population
- Crime Rate
 - Property crime rate
 - Violent crime rate

Environmental Quality

- Energy use
 - Energy use per capita
 - Annual percent change in energy use per capita
- Air Quality
 - Number of days air quality was unhealthy or unhealthy for sensitive groups
 - Number of days air quality was good or moderate
- Water quality and consumption rates
- Annual percent of possible sunshine
- Normal minimum temperature in January
- Normal maximum temperature in July
- Solid waste recycling

COMPARISON TO CITIES, STATES, COUNTIES AND USA

The 2008 Community Report Card compares the performance of Tucson's economy relative to that of competing metropolitan areas. The competitive cities were selected on the basis of the Economic Blueprint and the 2006 TREO Perception Study. The 10 competitor cities considered in this study include:

- Albuquerque
- Austin
- Dallas
- Denver
- Las Vegas
- Phoenix
- Portland

- Salt Lake City
- San Antonio
- San Diego

These cities were chosen on the basis of being locations frequently considered as a business location by firms that consider Tucson. Comparing Tucson's performance on the Livable Communities indicators to that of these 10 cities gives community leaders a good indication of our overall competitiveness in terms of livability. It also highlights what Tucson needs to do to become more competitive. The report card also compares Tucson's performance to the United States, which gives an indication of how Tucson is performing relative to the nation, as a whole.

Where possible, we try to compare Tucson's indicators to those of the competitor cities. However, when metropolitan data are missing for an indicator, this study utilizes county or state level data and U.S. data to make geographic comparisons.

This study also analyzes how Tucson's livability indicators perform over time. Where possible, historical information was collected for each of the indicators to calculate how they grew over time, and how Tucson's growth compares to other regions and the US.

RANKING THE PERFORMANCE OF INDICATORS

Ranking depends on three factors: competitive performance relative to other regions, rate of growth relative to other regions and improvement in performance relative to a benchmark.

INTERPRETING LIVABLE COMMUNITY INDICATOR CHARTS

The Livable Communities indicators in this section of the report measure Tucson's performance relative to the 10 competitor cities and to the nation.

The summary bar charts show Tucson's current performance relative to other regions. These bar charts show the performance of each city by their level of performance arranged in ascending order. Tucson (or Arizona, if Tucson data are unavailable) is highlighted in red. The average for the 10 competitor cities is highlighted in yellow. The U.S. is highlighted in black.

The titles of the charts show the name of the indicator and the time period. The y-axis shows the units of measure for each performance indicator. The level of the indicator or the indicator's growth rate is displayed above the bar for each region.

Tucson's performance relative to the other regions can be gauged by its position on the chart compared to other cities. Since the performance data is in ascending order, care must be taken in interpreting Tucson's comparative performance relative to other cities.

On some indicators, like crime rate and poverty, it is good to have a lower score. On others, like the amount of recycling, it is better to have a higher score.

Cost of Living

The cost of living in a community is a factor that contributes to its overall livability. Other things being equal, a lower cost of living makes a place more affordable. Residents are able to enjoy a higher standard of living with their income than they could in a community with a higher cost of living.

ACCRA Cost of Living Index

The ACCRA Cost of Living Index compares the cost of living in various metropolitan areas in the United States. It is computed by comparing how well the cost of living in each area of the country compares to the U.S. average. The U.S. average is always given a value of 100. The cost of living in each city is equal to its cost of living divided by the U.S. average cost of living. For example a city with an index of 110 has a cost of living that is 10% higher than the US. A city with an index of 85 has a cost of living 15% lower than the US.

Table 1 shows the ACCRA Cost of Living Index for Tucson and the other 10 competitor cities. The cost of living index is divided into six categories of expenditures that are weighted together to calculate an overall composite index for each city. Based on the table, it is clear that Tucson's cost of living (100.3) is roughly equal to the U.S. average. The cost of groceries tends to be higher in Tucson than the national average. The costs of housing and utilities tend to be lower than the U.S. average.

Chart 1 shows how the composite cost of living index for Tucson compares with those of the 10 competitor cities and to the U.S. average. Tucson's cost of living lies roughly in the middle of the cities and compares very favorably with Denver, Las Vegas, Portland and San Diego. However, Tucson's cost of living is above that in the three Texas cities.

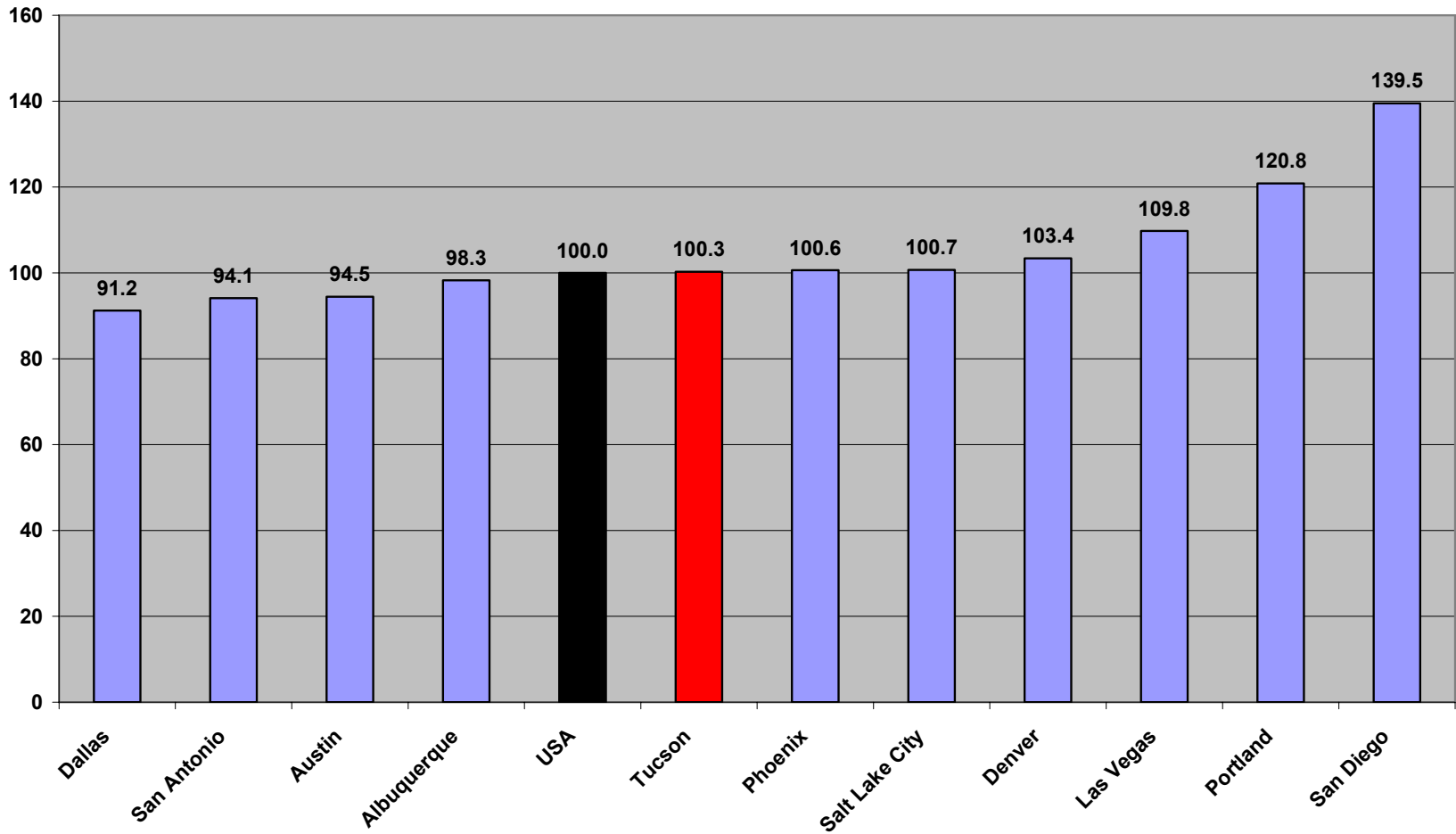
In general, Tucson is competitive with its peers in cost of living. This is a definite advantage in its competitiveness as a business location.

Table 1 - ACCRA Cost of Living Index by Category 2007

Weights ==>	100%	13%	28%	10%	10%	4%	35%
URBAN AREA AND STATE	COMPOSITE INDEX	GROCERY ITEMS	HOUSING	UTILITIES	TRANS-PORTATION	HEALTH CARE	MISC. GOODS AND SERVICES
San Diego CA	139.5	111.9	218.1	104.7	111.2	116.3	107.5
Portland OR	120.8	124.3	134.3	103.6	111.0	107.9	118.0
Las Vegas NV	109.8	100.8	133.6	106.2	104.4	107.0	96.9
Denver CO	103.4	102.9	109.3	102.4	95.4	108.5	100.8
Salt Lake City UT	100.7	102.3	98.0	87.4	103.5	99.3	105.4
Phoenix AZ	100.6	100.5	100.9	93.6	100.7	101.0	102.4
Tucson AZ	100.3	105.4	95.9	96.3	100.5	102.3	102.7
Albuquerque NM	98.3	100.3	102.8	86.7	99.0	98.9	96.9
Austin TX	94.5	89.8	80.8	94.7	99.2	98.1	105.3
San Antonio TX	94.1	83.7	84.1	83.5	100.1	102.5	106.4
Dallas TX	91.2	99.0	71.5	98.6	103.4	101.6	97.4

Source: C2ER, ACCRA Cost of Living Index

Chart 1 - ACCRA Cost of Living Index 2007



Source: ACCRA Cost of Living Index

Housing Affordability

The cost of housing is a major component of the cost of living in a metropolitan area. The affordability of housing is influenced by several important factors including: cost of the home, family income, mortgage interest rates, and property taxes. The affordability of housing can be estimated based on these factors and compared among regions.

One such measure is the Housing Opportunity Index (HOI) which estimates the share of homes sold that would be affordable to median income families. Chart 2 compares the HOI for Tucson to median income and median home price for the period 1997 to 2007.

The red line in the chart is the HOI for Tucson. The blue line is the median price of homes and the yellow line represents the median income in Tucson. The dashed black line in the chart shows the HOI for the nation as a whole.

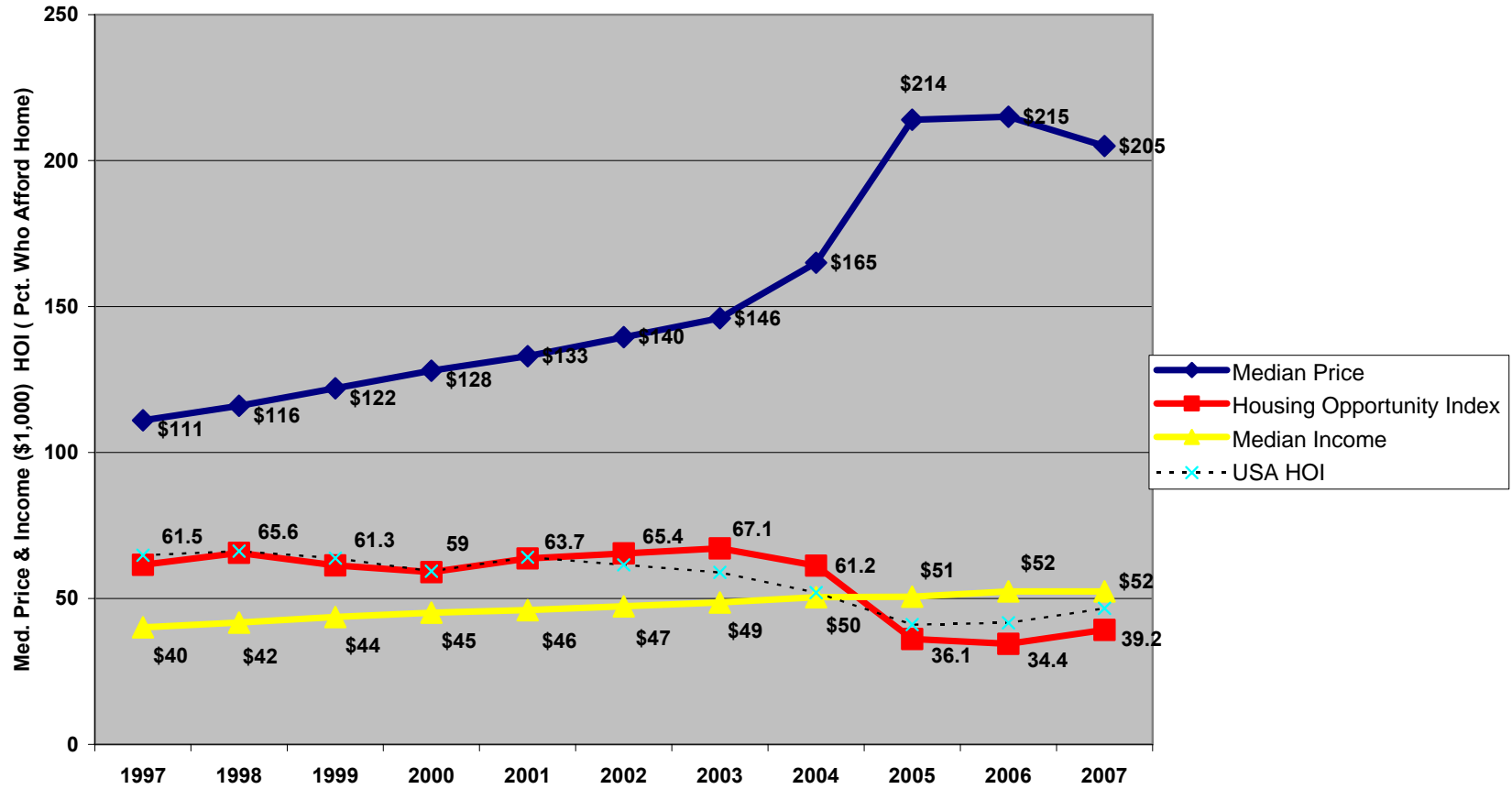
From 2000 to 2003, homes in Tucson became more affordable as incomes increased, housing prices rose at a modest rate and interest rates declined. The share of homes sold that were affordable to median income families rose from 59% in 2000 to 67.1% in 2003.

As interest rates declined, people took advantage of the lower monthly payments to buy homes. The median price of homes rose rapidly from \$146 thousand in 2003 to \$214 thousand in 2005, far exceeding the growth in median income. Consequently, housing affordability dropped dramatically. Between 2003 and 2006 the HOI fell from 67.1% to 34.4%. In other words, in 2006 only half as many homes were affordable to median income families as there were three years earlier.

The chart clearly shows that the HOI for Tucson was roughly equal to the U.S. average from 1997 to 2002. In 2002 and 2003, housing was more affordable in Tucson than in the nation as a whole. Following the run up in housing prices Tucson's housing affordability fell below the U.S. average. As of 2007, the Tucson HOI remained below the U.S. HOI, despite the fact that the median housing price in Tucson dropped in both 2006 and 2007.

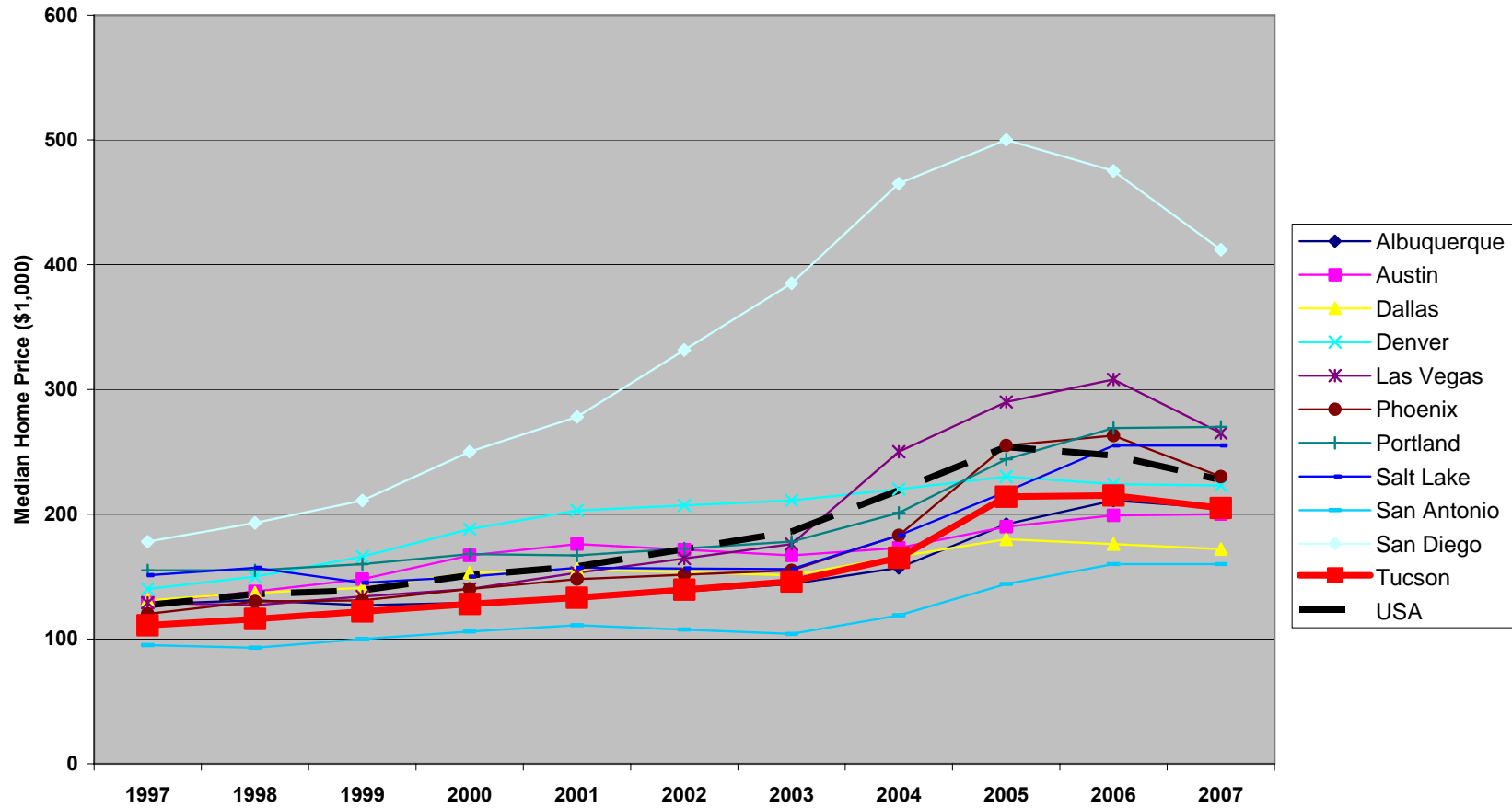
It is interesting to note that housing prices in Tucson are still relatively low compared with median prices in the competitor cities. Chart 3 shows the median housing prices for Tucson and the 10 competitor cities. Only Dallas, San Antonio and Austin had lower median housing prices than Tucson in 2007. Tucson's housing prices fell significantly below prices in San Diego, Portland and Las Vegas.

**Chart 2 - Tucson - Median Home Price, Median Income and Home Affordability
1997-2007 (4th Quarter)**



Source: NAHB/Wells Fargo Housing Opportunity Index

Chart 3 - Median Home Price by City 1997-2007

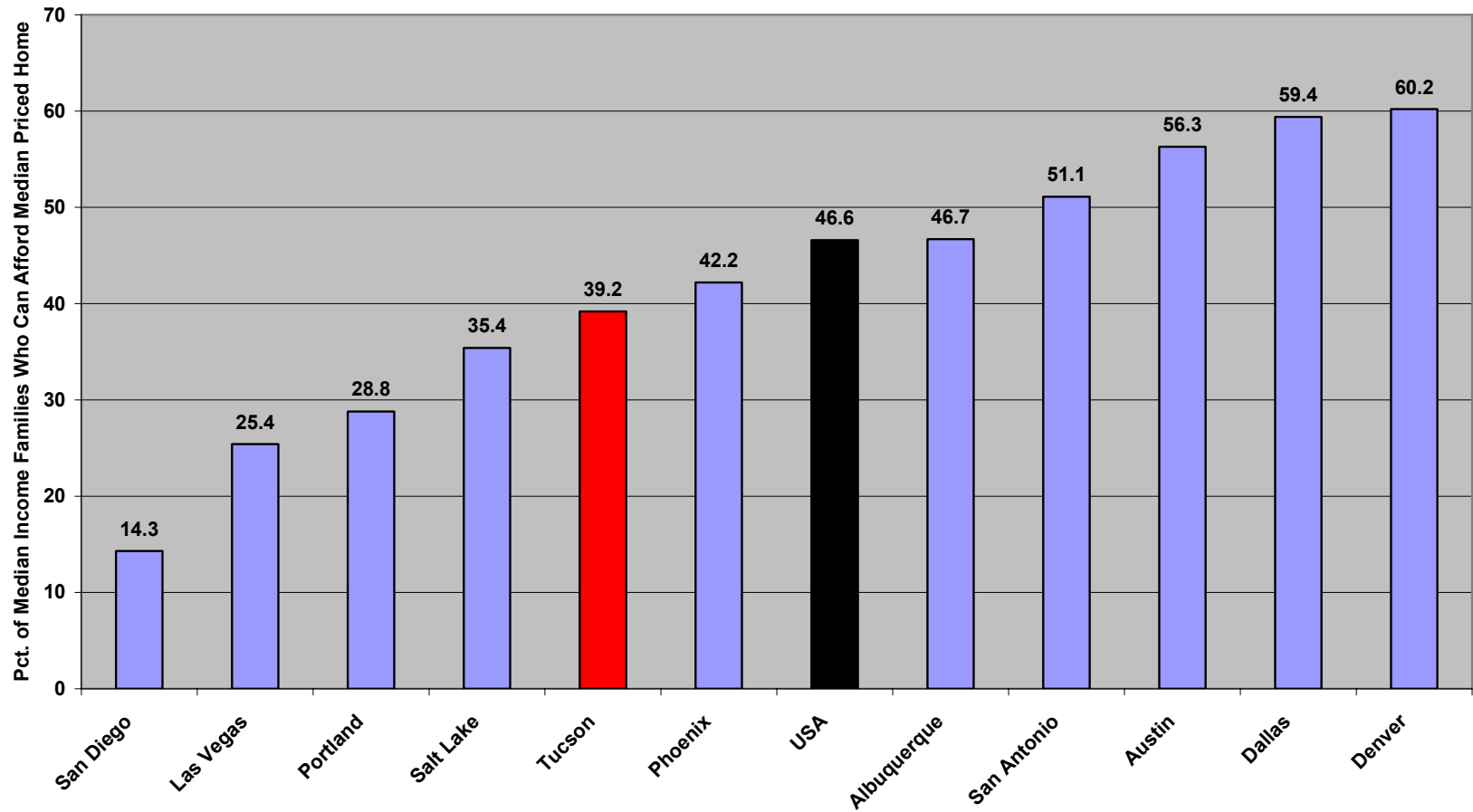


Source: NAHB/Wells Fargo Housing Opportunity Index

The problem for housing affordability in Tucson is not the price of housing. It is the low wages in the region that prevent median income families from entering the housing market.

Chart 4 compares housing affordability in Tucson relative to other competitor cities in 2007. Tucson ranks 7th out of the eleven cities in terms of housing affordability in 2007. Only 39.2 percent of the homes sold in Tucson were affordable to median income families versus 46.6 percent of U.S. homes. Ironically, even though only a small fraction of the homes sold in Tucson are affordable to local median income families, the homes are still selling to people from California and other regions of the country that have higher incomes.

Chart 4 - Housing Opportunity Index 2007



Source: NAHB/Wells Fargo Housing Opportunity Index

Poverty Rate

The poverty rate in a community is an important dimension of the overall quality of life. High levels of poverty are associated with drug use, crime, hunger, homelessness, illiteracy, teen pregnancy, and many other social problems. Most communities try to reduce the level of poverty within their jurisdictions.

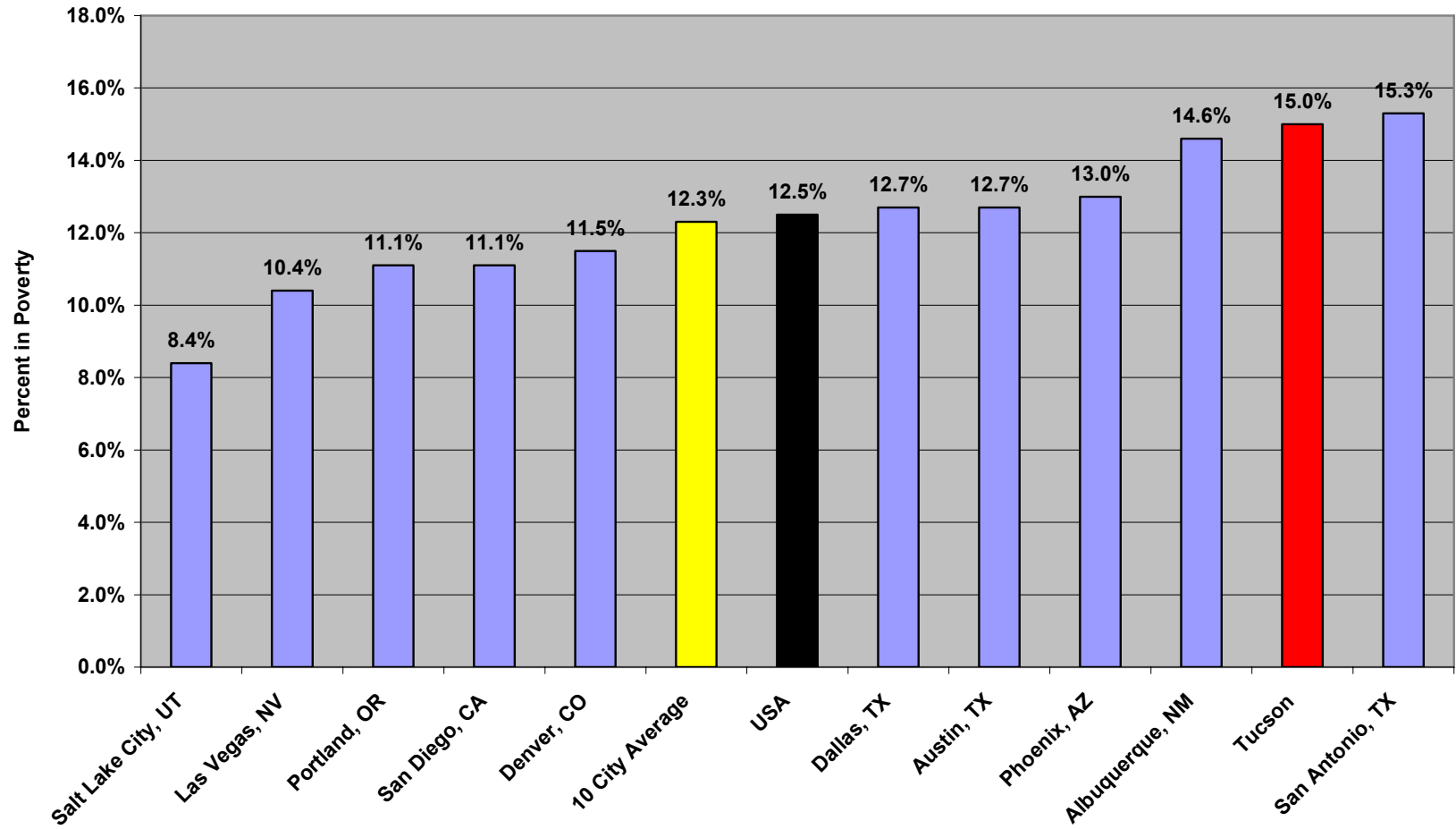
Total Poverty Rate

Chart 5 shows the rate of poverty for Tucson and the competitor cities in 2007. Tucson's poverty rate is high relative to most of other cities. In Tucson 15.0 % of the population is in poverty. Only San Antonio has a higher poverty rate. Tucson's poverty rate is higher than the US average of 12.3%.

Child Poverty Rate

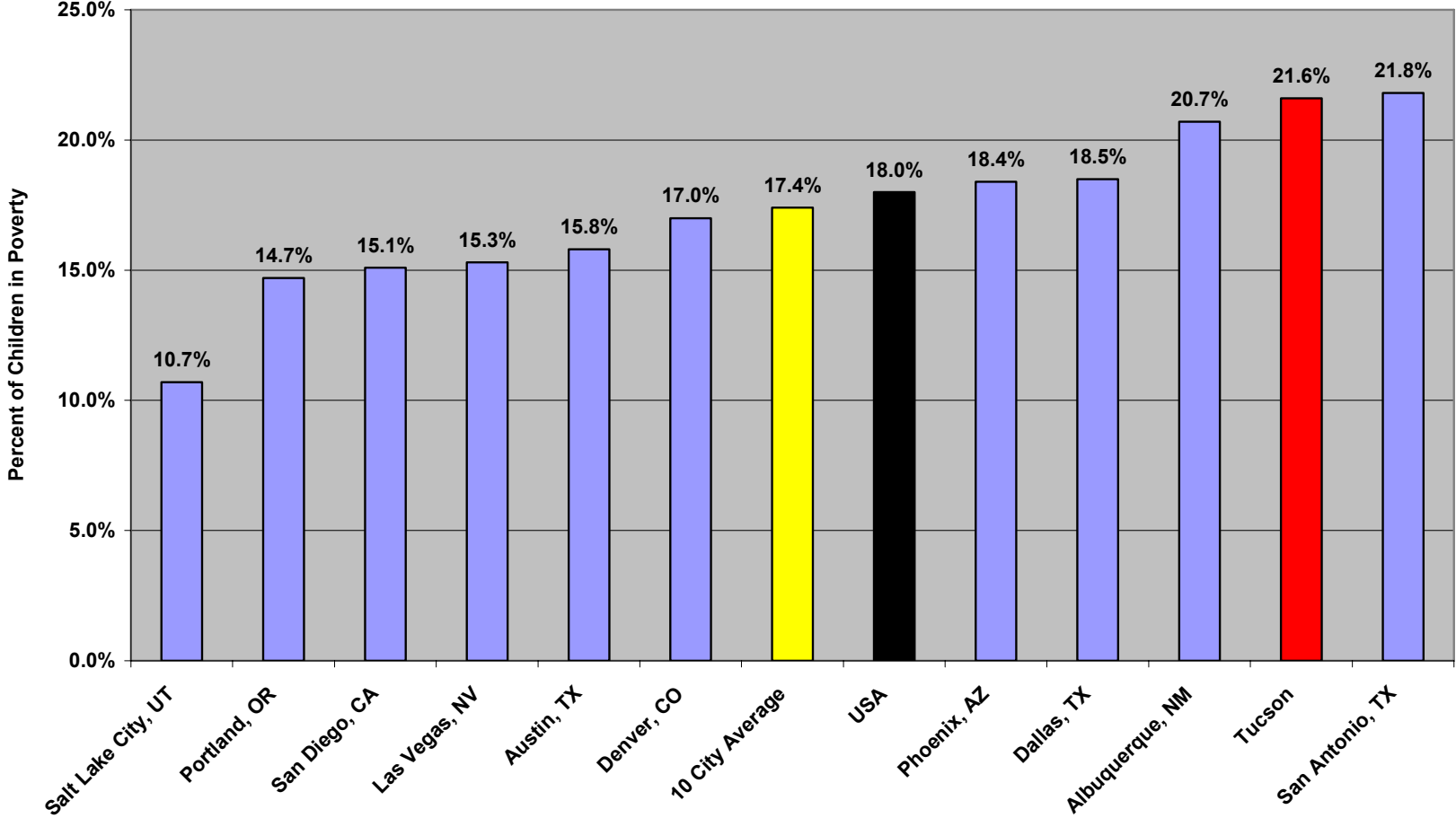
A similar pattern is true of the number children in poverty (see Chart 6). Tucson has the second highest poverty rate, slightly lower than that in San Antonio. The percentage of children in poverty is actually higher than the total population. Child poverty in Tucson affects 21.6% of local children. This is higher than the average US child poverty rate of 18.0%.

Chart 12 - Percent of Population in Poverty 2007



Source: American Community Survey.

Chart 13 - Percentage of Children in Poverty 2007



Source: American Community Survey.

Quality of Life

A high quality of life in a community enhances its attractiveness to existing residents, tourists, retirees and potential new residents. The quality of life indicators represent factors that can enhance or damage the perceived quality of life in a region. These factors include such things as public education, environmental quality, crime, health care, recreation, traffic, public infrastructure, poverty, home ownership, entertainment, shopping, cultural amenities, public services and so forth.

There are an almost limitless number of factors that can affect the overall quality of life in a community. For the purposes of this report card, we have selected a set of general indicators that influence the perceived quality of life and that can be compared across the 10 competitor cities. Some quality of life factors, like education, have been included under other sections of the report card and are not replicated in this section. Other factors that influence the quality of life are not included either because they cannot be easily compared across metropolitan areas or because their measurement is indirect and/or open to interpretation.

A high quality of life is essential to the successful implementation of TREO's strategic goals. In order to raise local wages and increase the overall level of prosperity in Tucson, it is essential to develop a highly skilled workforce. A good quality of life helps to attract highly skilled labor from other regions, and retain skilled labor that is already here, such as University of Arizona graduates. As Tucson builds a strong highly skilled, highly educated workforce, it will act as a magnet to attract high wage companies, expand existing high wage companies or start up new companies.

Transportation

The transportation system in a region is an important element in the quality of life. The ability to commute between home, work, shopping and other places in a safe and efficient manner is important to local residents. Three important aspects of the transportation system are the length of the commute to work, the availability and utilization of alternate modes of travel and the flexibility to work from home.

Average Commute Time

The average commute time is important to residents of a community. As commute times lengthen, people get upset, frustrated and aggravated, spending more time driving and having less time for family and social activities.

Chart 7 shows the average commute times for Tucson and the competitor cities. Tucson's commute time is the third shortest of the competitor cities at 25.7 minutes. Only Salt Lake City and Albuquerque have shorter commute times. Phoenix has the longest commute times of the cities we analyzed.

The commute time in Tucson is lower than the U.S. average. The relatively short commute time in Tucson represents a definite comparative advantage for people and companies desiring to escape the traffic and congestion of large urban areas.

Percent of Drivers Who Carpool

Tucson ranks 7th out of the competitor cities in terms of the number of residents who carpool to work (see Chart 8). Tucson's carpool ridership stands at 11.8% which is higher than the U.S. average, but well below the Phoenix level of 14.4%.

Percent of Residents Who Use Public Transportation

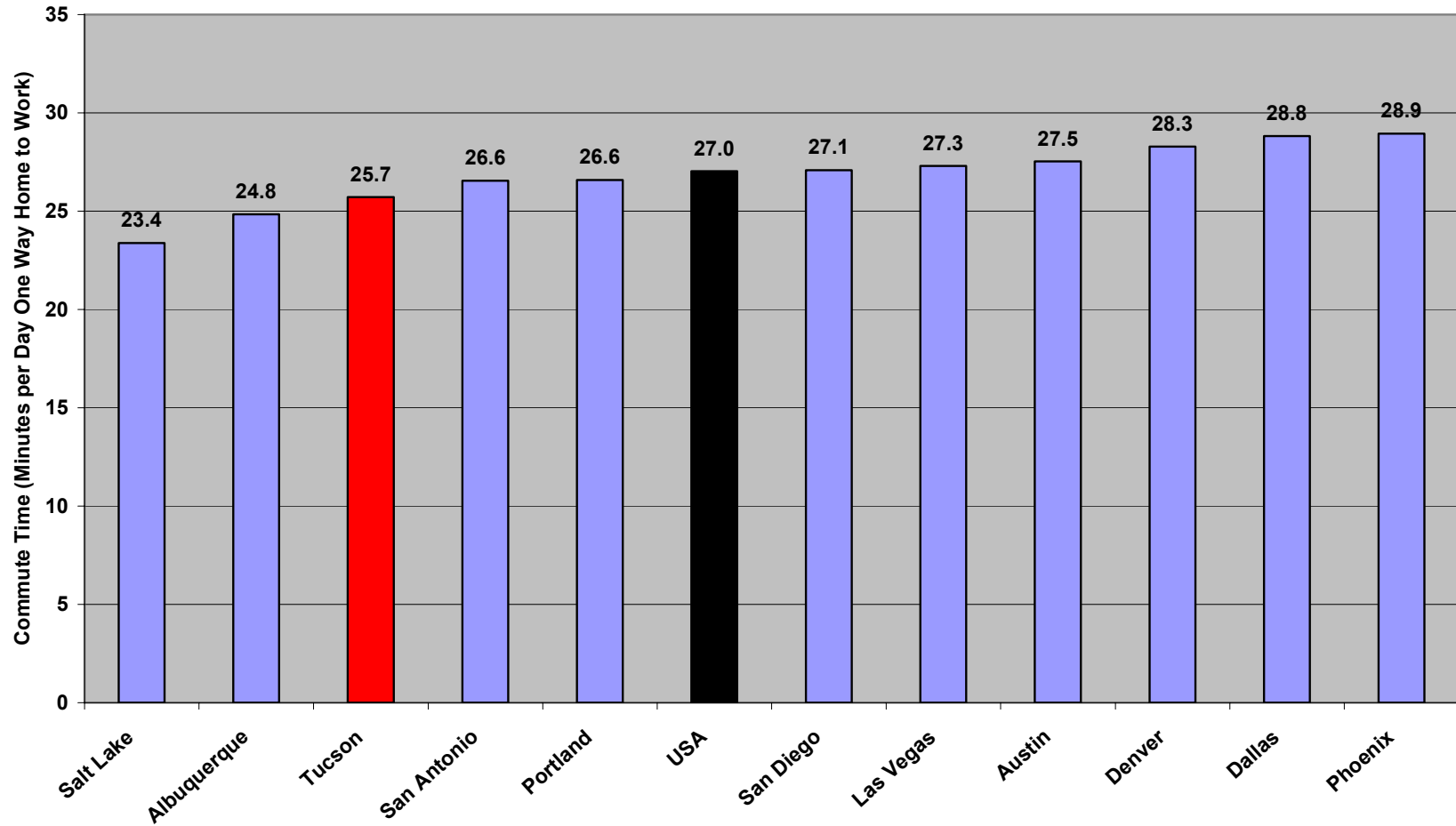
Tucson ranks in the middle of the competitor cities in terms of the percent of residents who use public transportation. In Tucson, 3.1% of the residents ride public transportation (see Chart 9). This is well below the U.S. average of 4.8%. Portland's public transportation ridership is at 6.4% of its residents. Part of the reason for the high ridership rate in Portland is that it has a strong public transportation system including light rail.

Percent of Residents Who Work from Home

The advent of the Internet and the widespread use of computer technology make it possible for many people to work from home. This saves time and reduces the amount of traffic on the road. This is an option for many people who do not have to be present at the workplace to do their work and whose companies have flexible work policies.

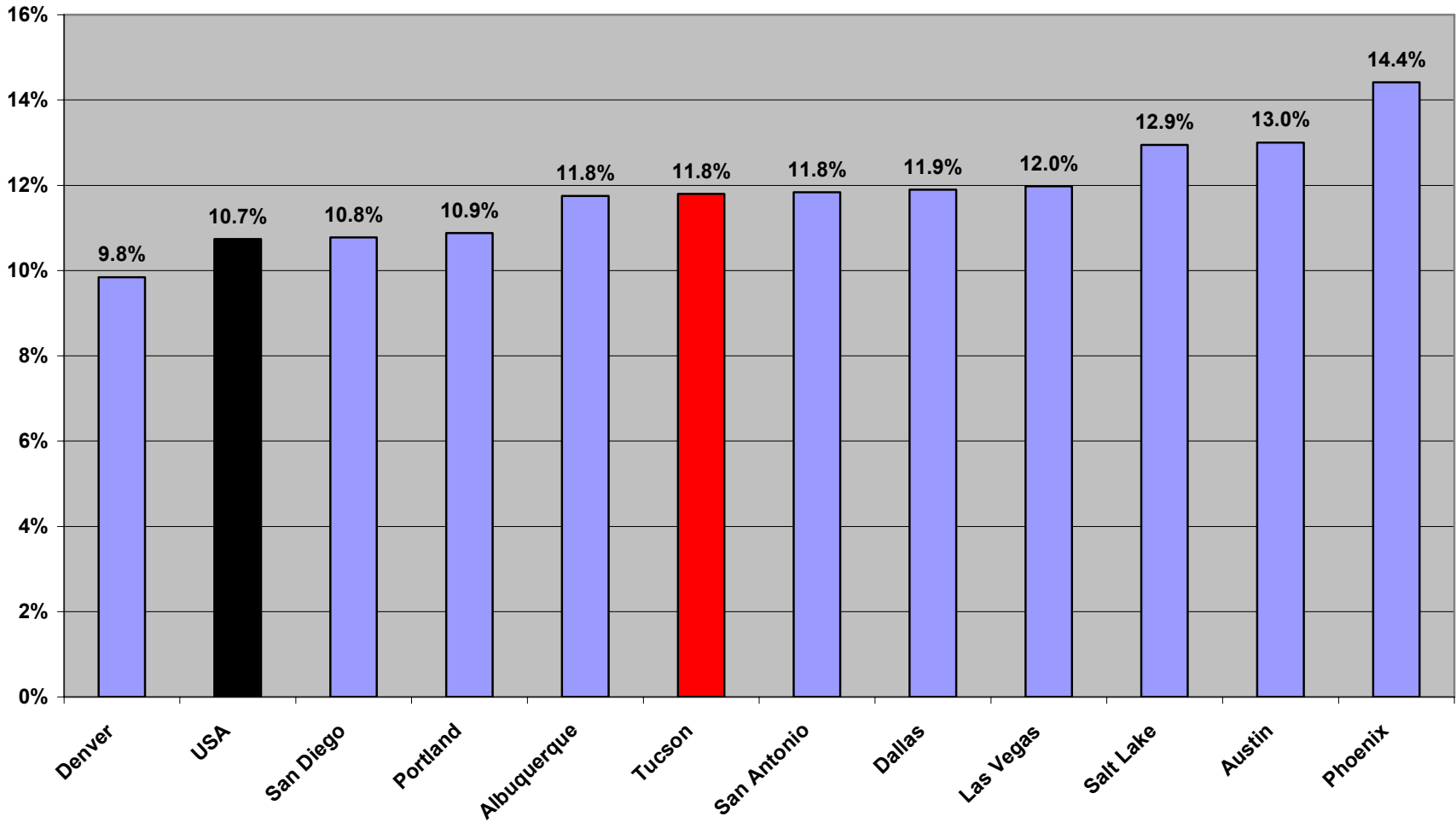
Tucson ranks 5th out of the competitor cities with 4.8% of residents reporting that they work at home (see Chart 10). This is higher than the average U.S. rate of 3.9%.

Chart 7 - Average Commute Time by City 2006



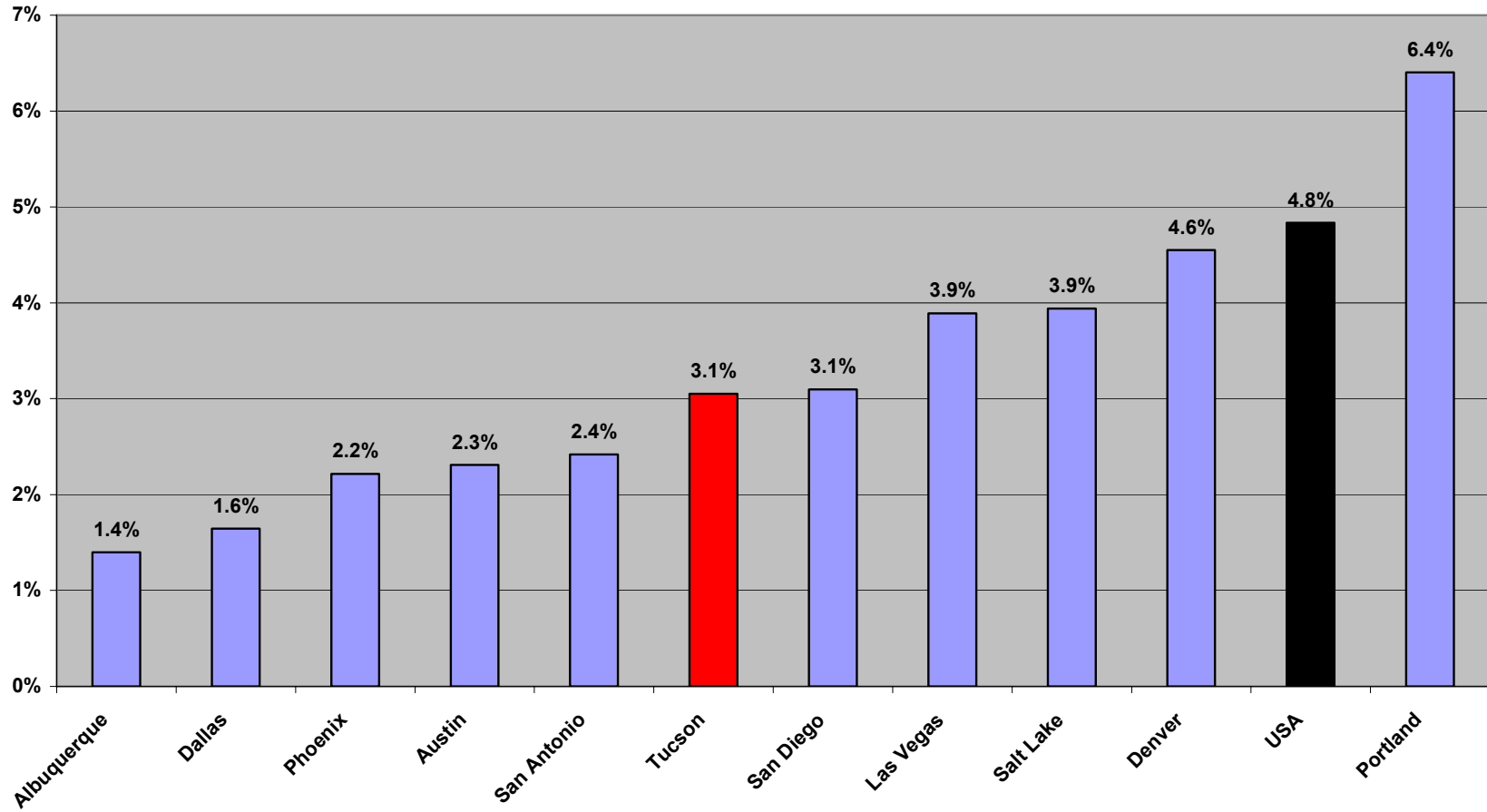
Source: American Community Survey

Chart 8 - Percent of Drivers Who Carpool 2006



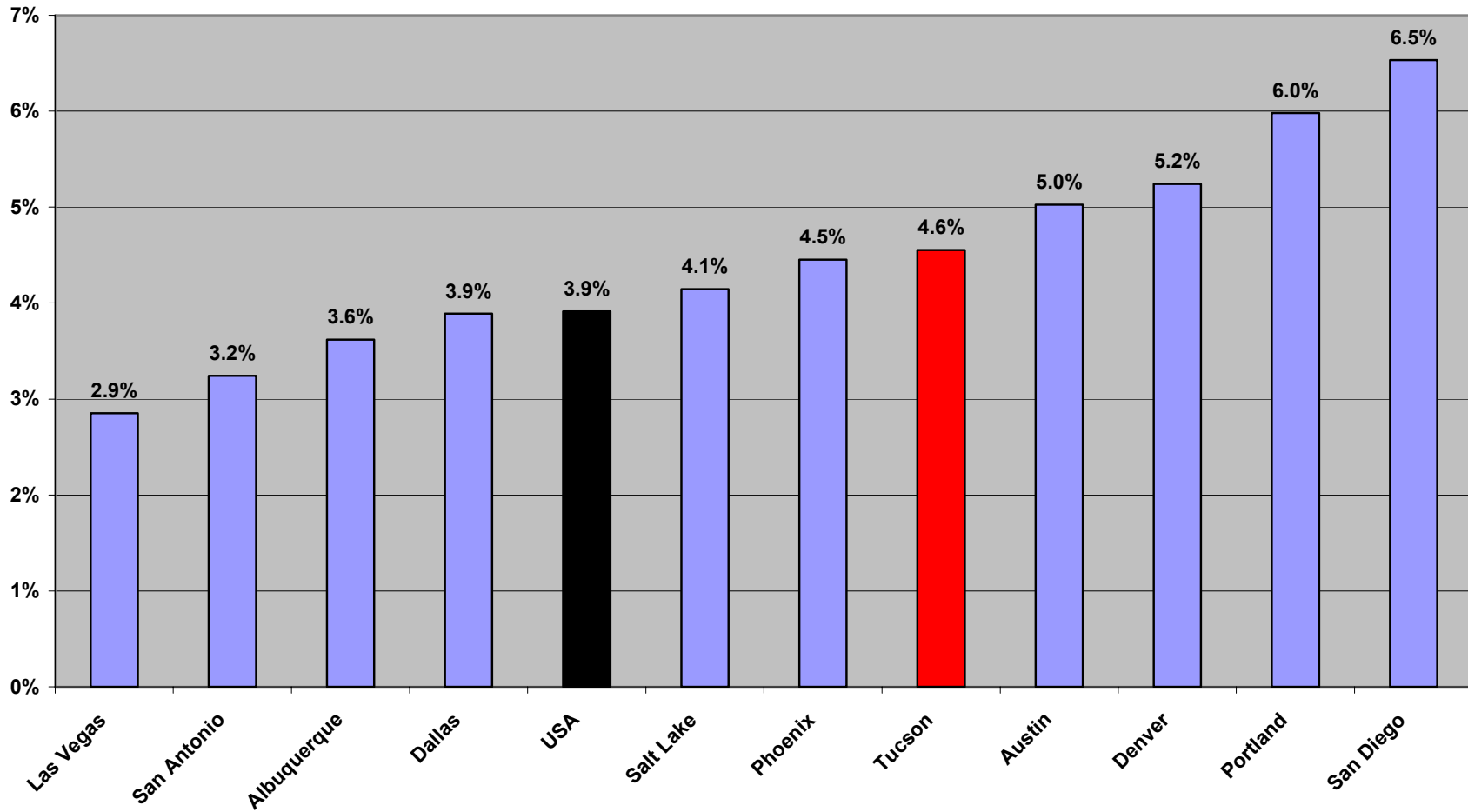
Source: American Community Survey

Chart 9 - Percent of Residents Who Use Public Transportation 2006



Source: American Community Survey

Chart 10 - Percent of Residents Who Work from Home 2006



Source: American Community Survey

Health Care

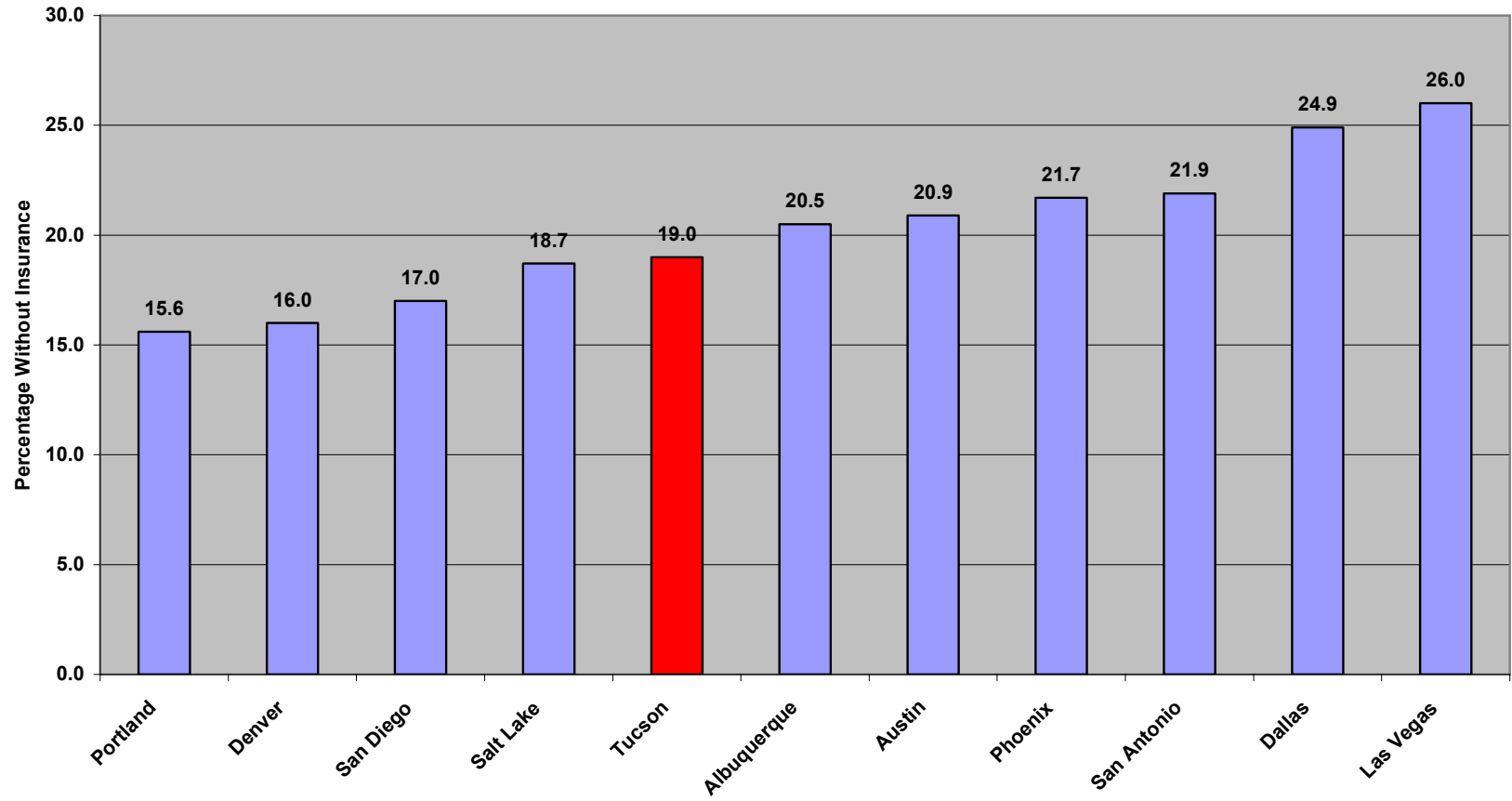
The availability of quality, affordable health care is an important component of a high quality of life. The quality of health care is determined by access to medical treatment and facilities. The affordability of health care is dependent on the cost of health services, the level of income and access to medical insurance. We have chosen two indicators for health care: the percent of adults without healthcare and the number of physicians relative to the population.

Chart 11 shows the percent of adults without some form of health insurance. Tucson ranks 5th in the percentage of uninsured adult residents out of the competitor cities. In 2007, 19% of the adults in Tucson had no form of health insurance.

Chart 12 shows the number of licensed physicians per 1,000 residents in 2006 for Tucson and the competitor cities. Tucson compares very favorably with the other cities, ranking 2nd, with 300 physicians per 1,000 residents. Only Albuquerque has more doctors per capita than Tucson. The number of physicians per 1,000 in Tucson is significantly higher than the U.S. average of 244. However, this number represents licensed physicians, not necessarily active, since Tucson tends to attract part time winter visitors and retirees.

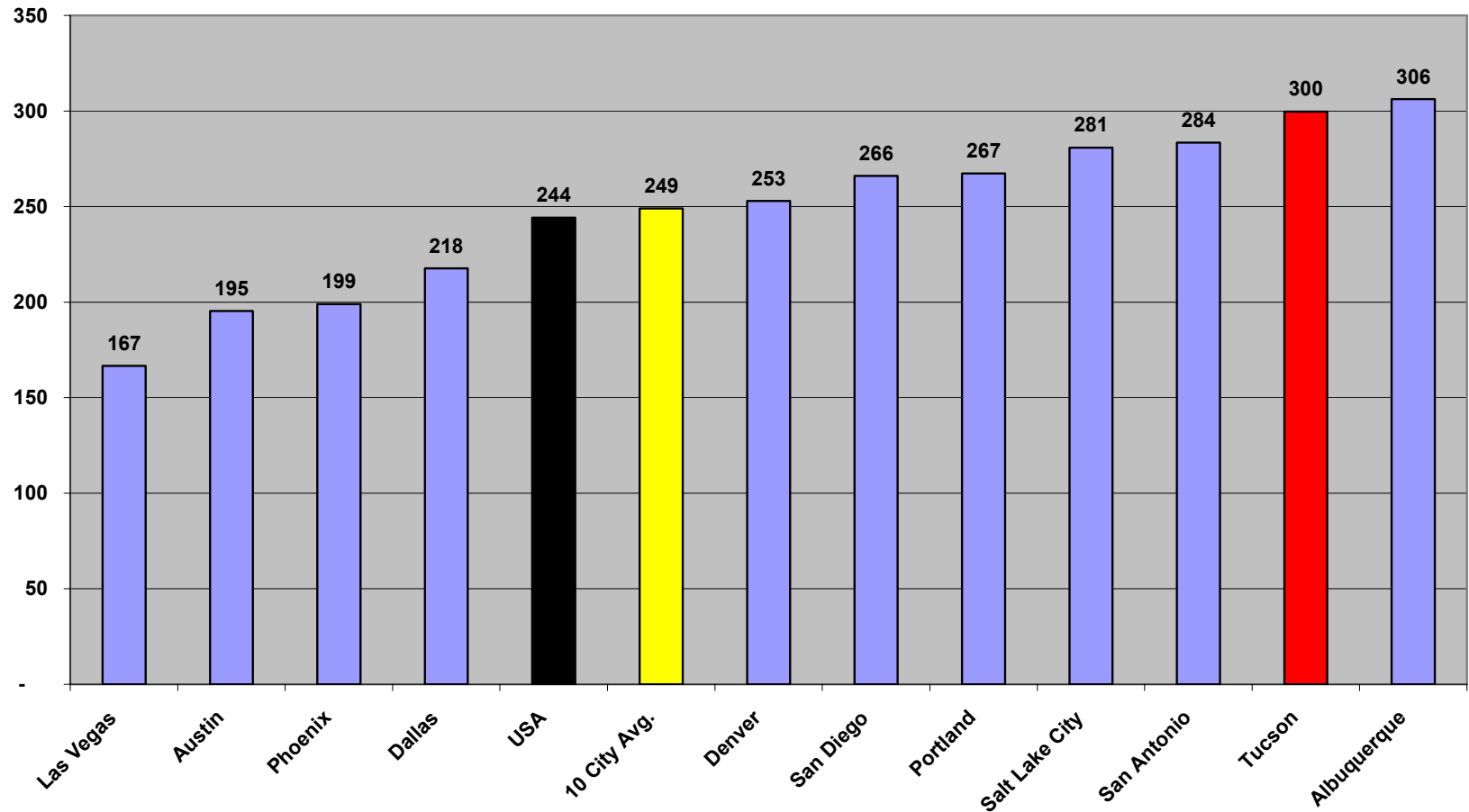
According to the Arizona Medical Board; *2005 Arizona Physician Workforce Study*, Carey School of Business, Arizona State University and University of Arizona Health Sciences Center, the number of practicing physicians in Pima County is 2,569.

Chart 9 - Percent of Adults Aged 18-64 Without Some Form of Health Insurance 2007



Source: Centers for Disease Control and Prevention (CDC)

Chart 10 - Number of Physicians per 1,000 Population 2006



Source: American Medical Association, 2006.

Crime Rate

The crime rate has a profound effect on the quality of life in a community. Property crime costs businesses and individual's time, effort and money to replace stolen property. Violent crime endangers the health and safety of people within the community. When the crime rate gets too high, it lowers people's sense of security and lowers the perceived quality of life in the region.

Property Crime

The Tucson Metropolitan Area has the 4th highest crime rate of the competitor metropolitan areas included in this study (see Chart 13). In 2005, Tucson had 5,230 property crimes per 100,000 residents. This was 52% higher than the U.S. property crime rate.

In 2006 Tucson changed its property crime reporting procedures. The FBI stopped reporting the Tucson property crime rate after 2005. The FBI claims that Tucson's crime rate reporting is not consistent with its uniform crime reporting methodology. Because of this, it is not possible to determine whether the property crime rate in Tucson is improving.

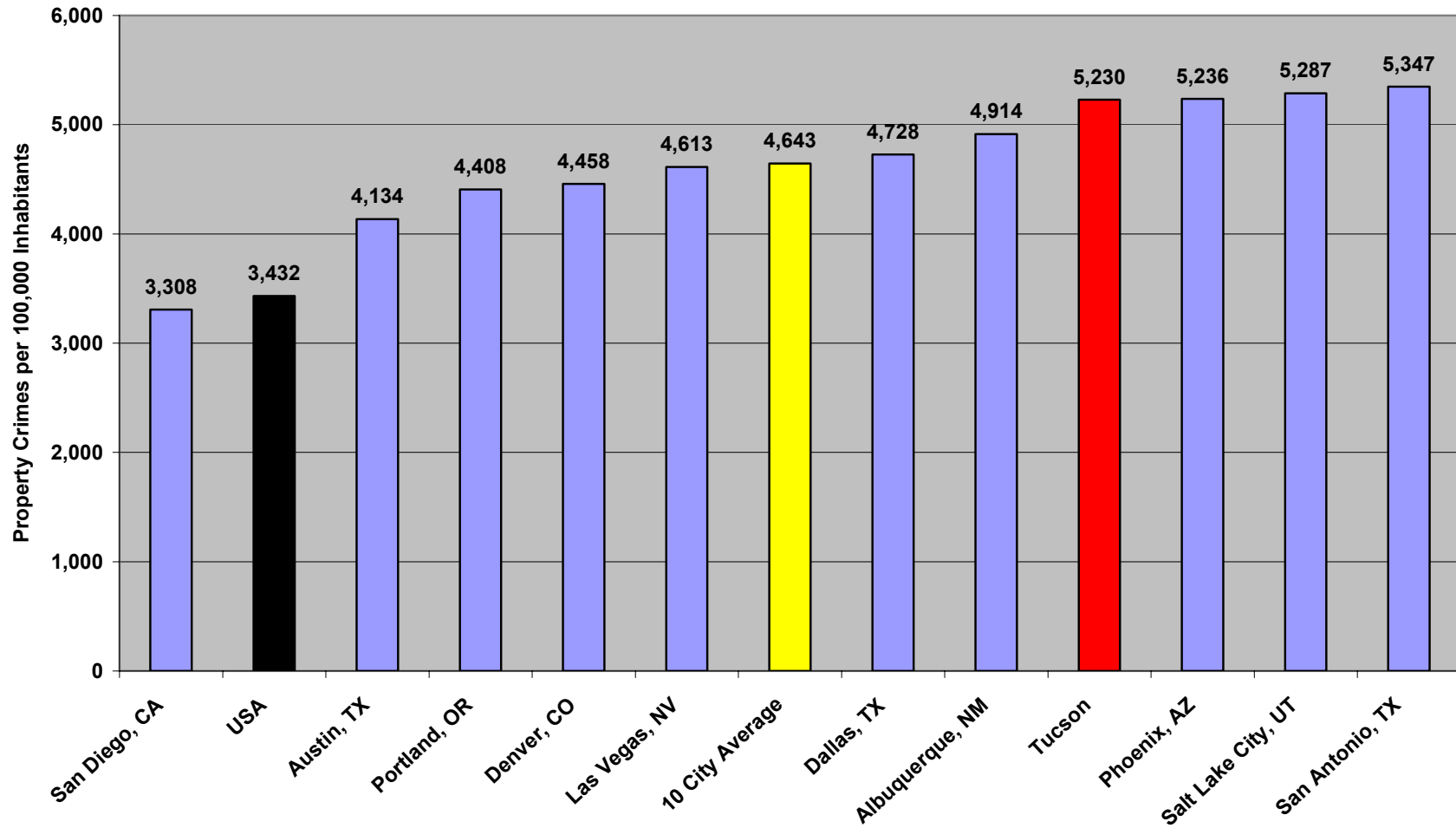
Violent Crime

The Tucson Metropolitan Area's violent crime, like its property crime rate was high relative to the U.S. average as well as compared to other competitor metropolitan areas (see Chart 14). Tucson had 592 violent crimes per 100,000 residents in 2006, ranking third highest among the competitor cities. The violent crime rate in the Tucson Metropolitan Area was almost 25% higher than the U.S. average. Tucson's violent crime rate dropped between 2005 and 2006, but its rank relative to other competitor cities remained unchanged.

The FBI recently issued preliminary violent crime rate statistics for the City of Tucson that indicate that the violent crime rate dropped 10.4 percent in 2007. This reduction in violent crimes was greater than that for the U.S. as a whole, which declined only 1.4 percent in 2007. Comparable 2007 crime rate data are not yet available on a metropolitan area basis.

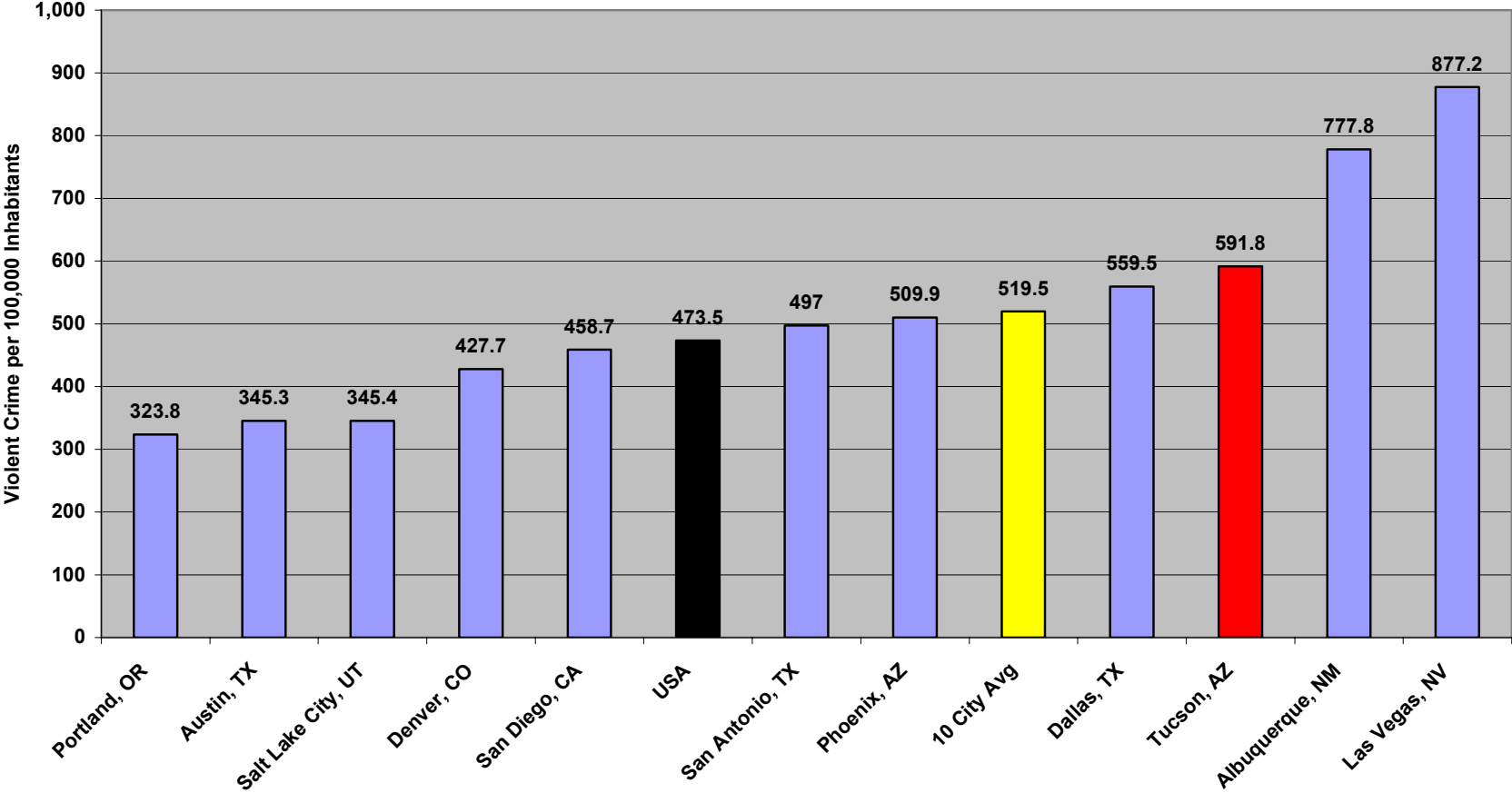
The high property and violent crime rates in Tucson give the impression to citizens and outsiders alike that Tucson is not a safe place to live and work. Businesses considering relocating to Tucson often rank crime as one of the highest considerations in making their decisions.

Chart 13 - Property Crime Rate 2005



Source: FBI, Crime in the United States

Chart 14 - Violent Crime Rate 2006



Source: FBI, Crime in the United States

Population Density

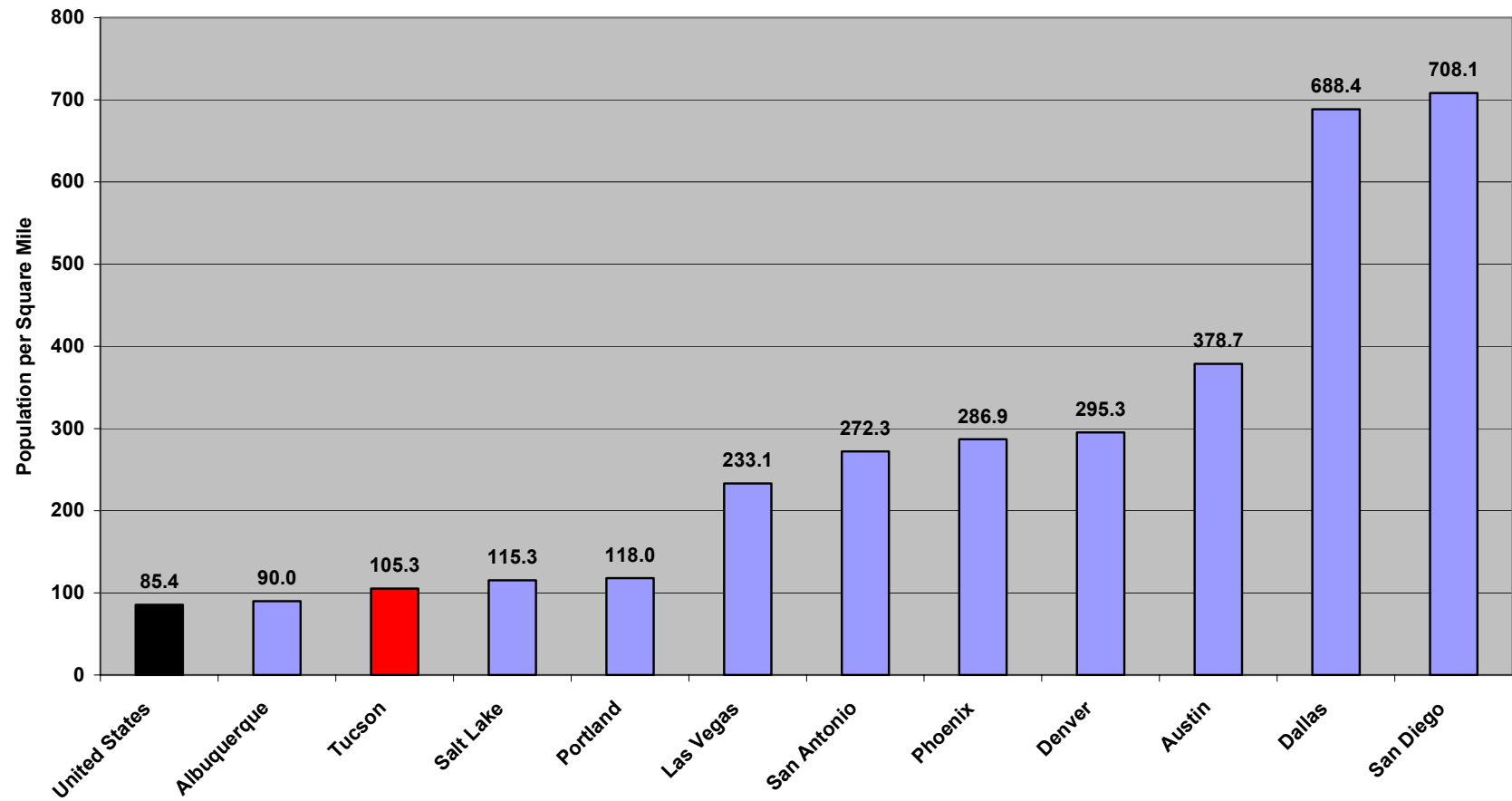
Population density affects the local quality of life in several ways. On the negative side, high density cities frequently experience traffic congestion, deteriorating air and water quality, noise, fast pace of life and other negative externalities associated with life in large urban centers.

On the positive side, denser cities offer opportunities not available in smaller cities. Denser cities can more easily afford public transit systems. They can also offer many shopping, entertainment, restaurants, museums, and cultural activities than smaller towns and cities.

Whether the advantages of living in denser cities outweigh the disadvantages is a matter of preference. For individuals and companies that prefer a relaxed pace of life, smaller cities might offer a good quality of life. For people and businesses that prefer a more active lifestyle larger cities might be preferable.

Chart 15 shows the relative population densities for Tucson and the competitor cities in 2007. Tucson's population density of 105.3 people per square mile is the least dense city after Albuquerque. Based on this indicator, Tucson could be a good business location for businesses that want to escape the hustle and bustle of big city life. However, Tucson would not be likely to appeal to firms that need to be located near larger markets, suppliers and financial centers.

Chart 15 - Population Density 2007



Source: U.S. Census

Environmental Quality

The environmental quality of a region is an important element of the overall quality of life. Environmental quality can be measured by such things as air and water quality, and energy and natural resource stewardship.

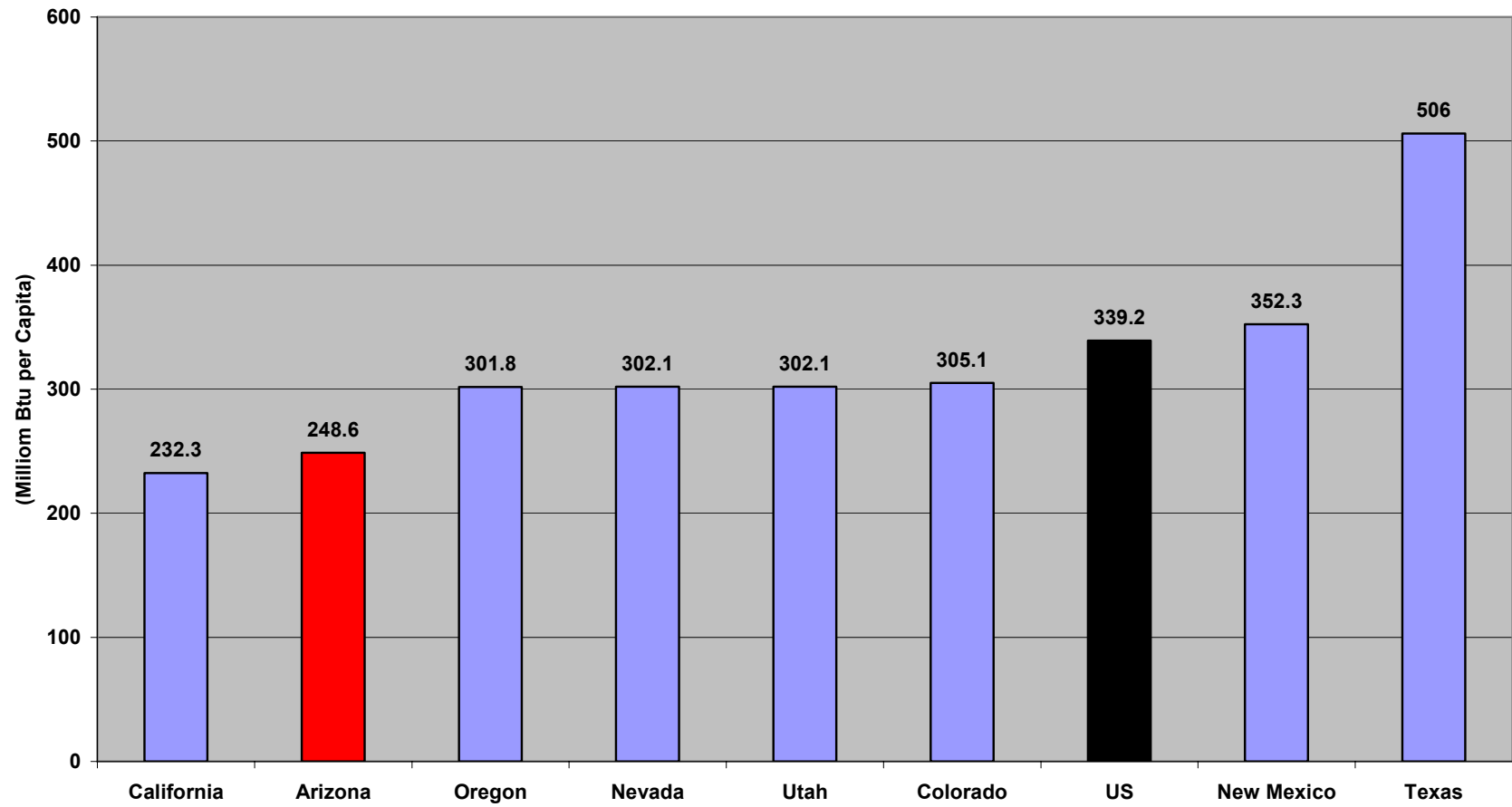
Energy Use per Capita

Energy use per capita is sometimes used as a proxy for how efficiently different parts of the country are using energy. Chart 16 shows how Arizona's per capita energy use compares to other competitor states.

In order to compare the energy content of different types of energy sources, energy usage is based on British Thermal Units (Btu). A Btu is the amount of heat required to raise one pound of water by one degree Fahrenheit. In 2005, Arizona used 248.6 million Btu per capita. Its energy use per capita was 27% lower than the U.S. average. Only California had a lower level of energy consumption per capita.

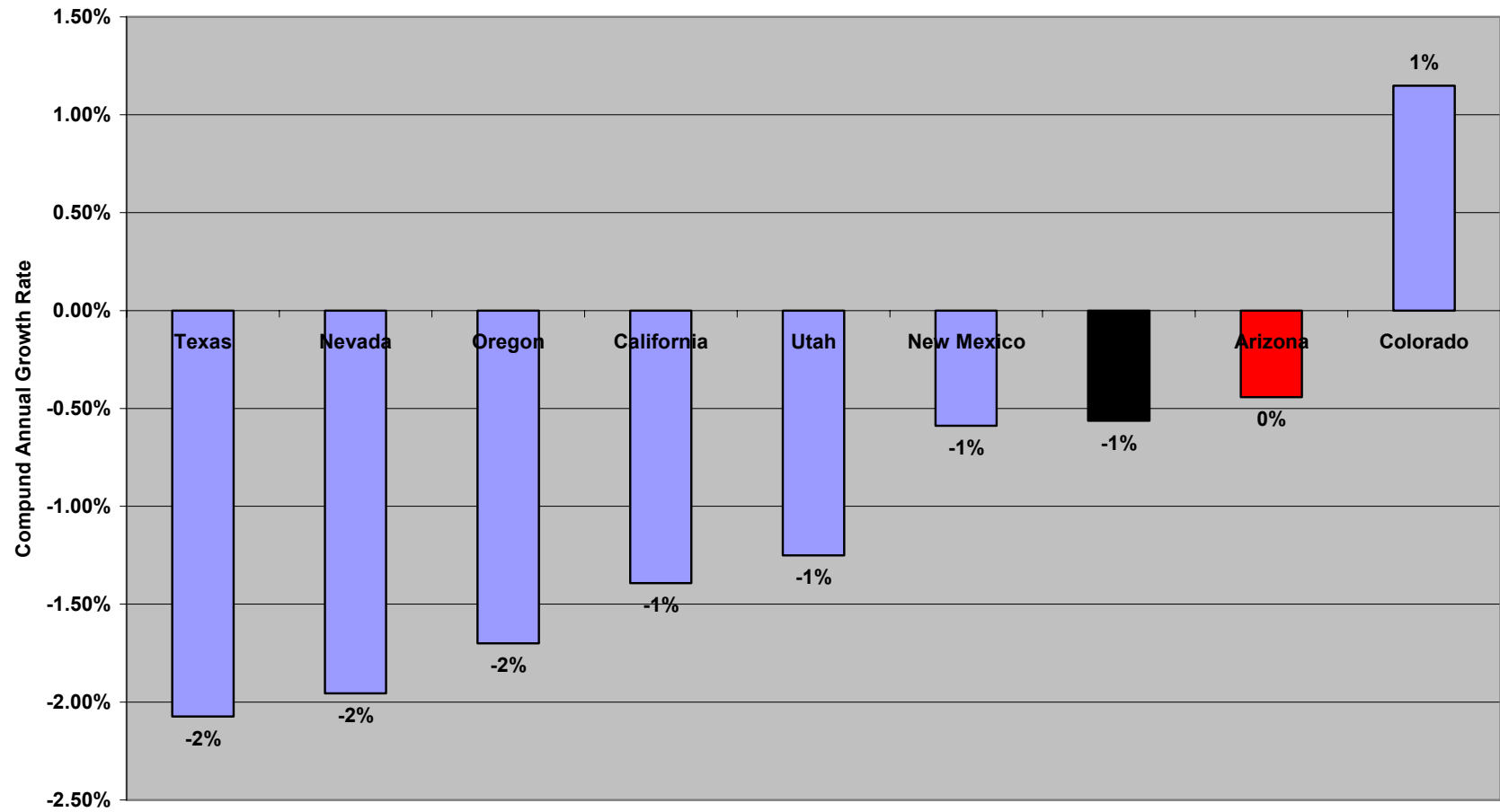
Chart 17 shows the annual percentage change in per capita energy consumption between 1999 and 2005. The United States and all of the competitor states, except Colorado, experienced a reduction in energy use per capita. Arizona's energy use per person decreased at an annual rate of 0.4% per year over this period. However, the annual rates of decline in energy usage in the U.S. and all of the other states besides Colorado fell at a more rapid rate than in Arizona.

Chart 16 - Energy Use per Capita 2005



Source: U.S. Dept. of Energy, Energy Information

Chart 17 - Annual Percentage Change in Energy Use per Capita 1999-2005



Source: U.S. Dept. of Energy, Energy Information Administration

Air Quality

Air quality is becoming an increasing concern for large metropolitan areas around the world. As population grows in an area, industrial activity and traffic cause deterioration of air quality levels. In many cases the level of pollution is harmful to human health.

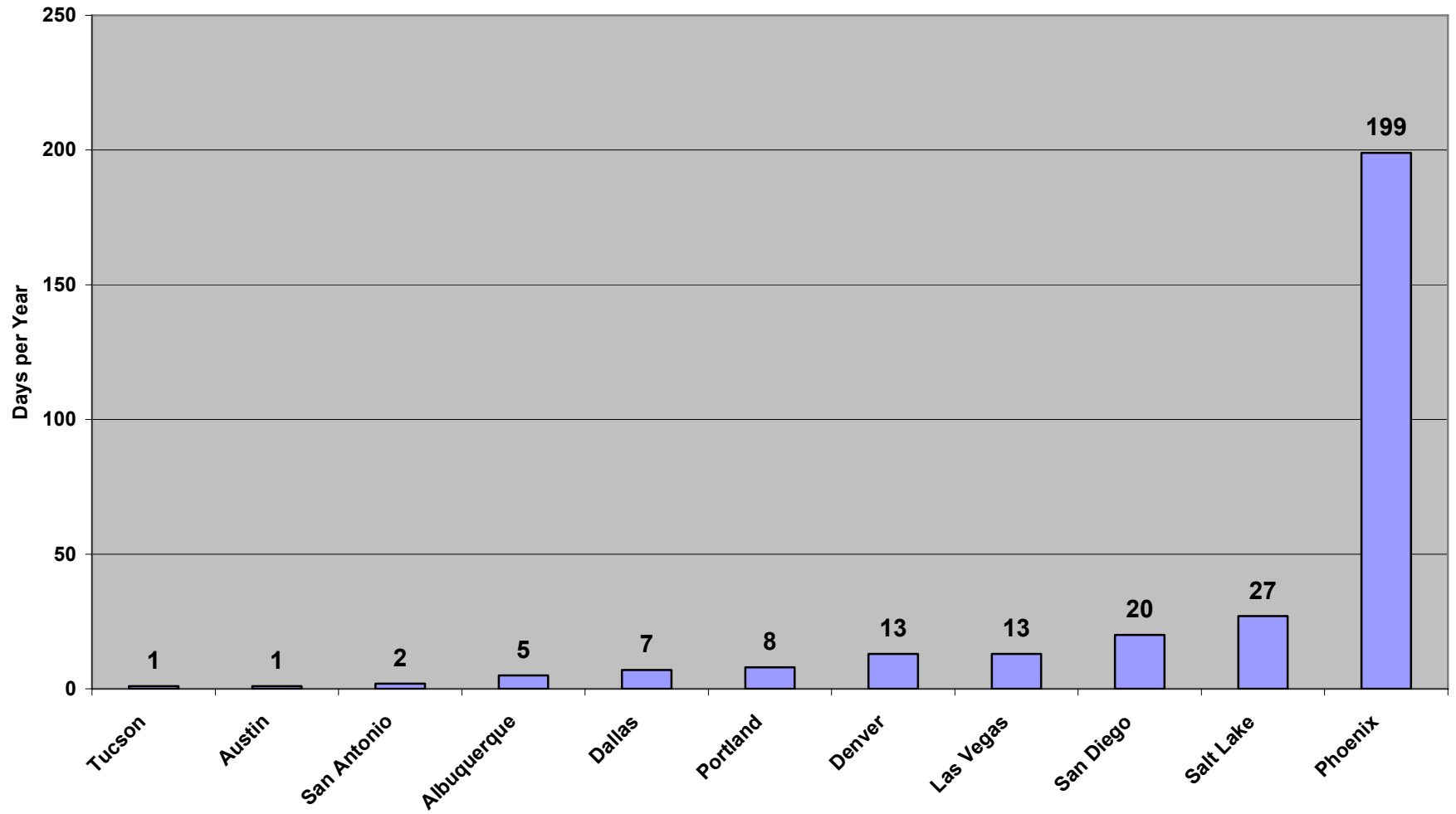
It is difficult to precisely quantify the damage associated with poor air quality by using chemical measures of the level of contaminants in the atmosphere. Scientists can detect the levels of CO₂, SO_x, particulates and other airborne contaminants, but the real concern to people is how it affects their health.

For the purposes of this report, we have chosen two indicators that represent the air quality for the cities in the study. First, we compare the number of days air quality is unhealthy or unhealthy for sensitive groups. This gives an indication of the number of days of poor air quality. Second, we use the number of days air quality is good or moderate as an indicator of good air quality.

Tucson performs extremely well compared to its peer cities in terms of air quality. Tucson and Austin tied for the fewest days with unhealthy air quality (see Chart 18). Each city had only one day of unhealthy air quality in 2007. Phoenix had the worst air quality with 199 days of unhealthy levels of air quality. The poor air quality in Phoenix results primarily from vehicle emissions.

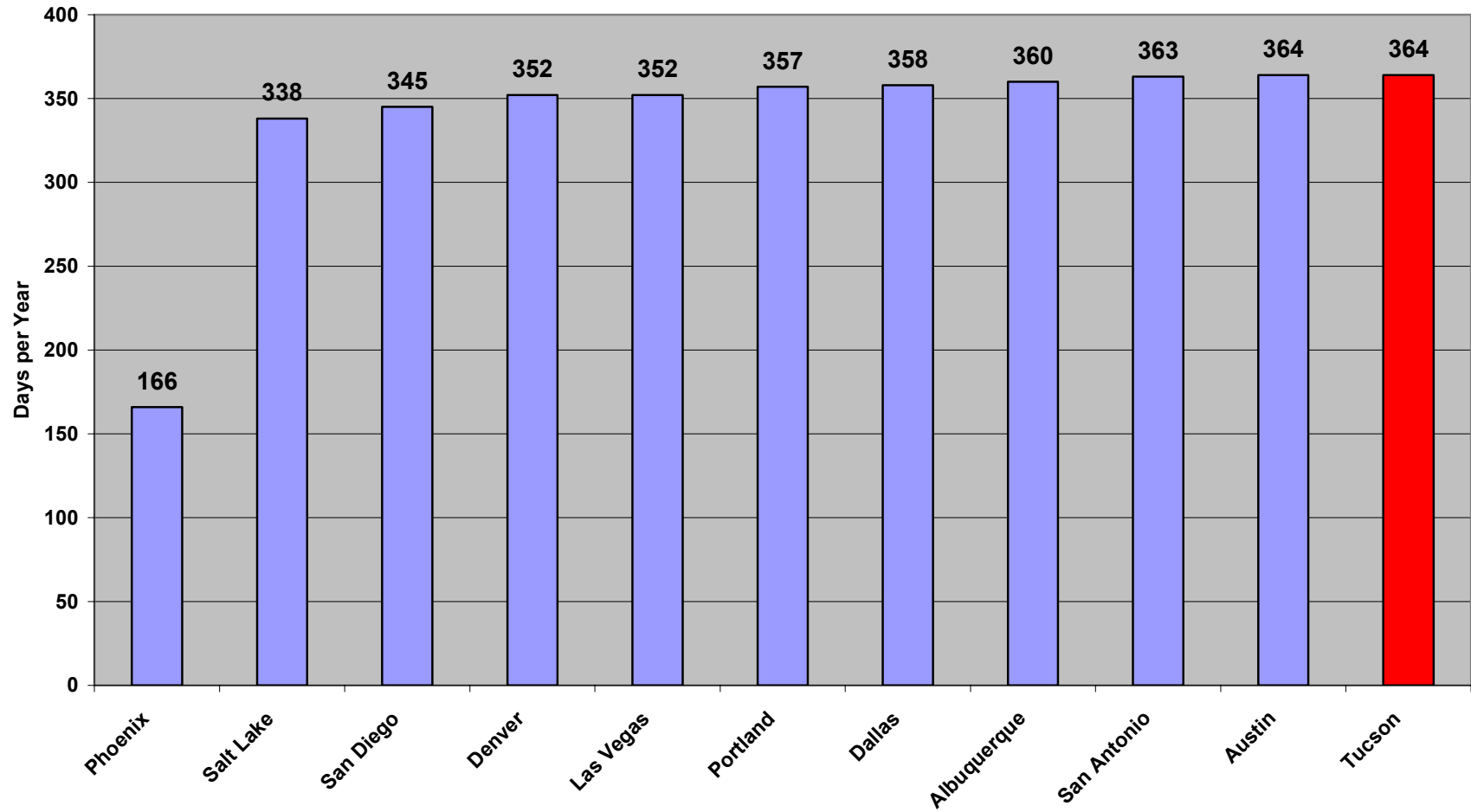
Similarly, Tucson and Austin had the highest number of days of good to moderate air quality (see Chart 19). Tucson had 364 days of good to moderate air quality in 2007. Tucson's healthy air quality enhances its overall quality of life.

Chart 18 - Number of Days Air Quality was Unhealthy or Unhealthy for Sensitive Groups 2007



Source: US Environmental Protection Agency

Chart 19 - Number of Days Air Quality was Good or Moderate 2007



Source: U.S. Environmental Protection Agency

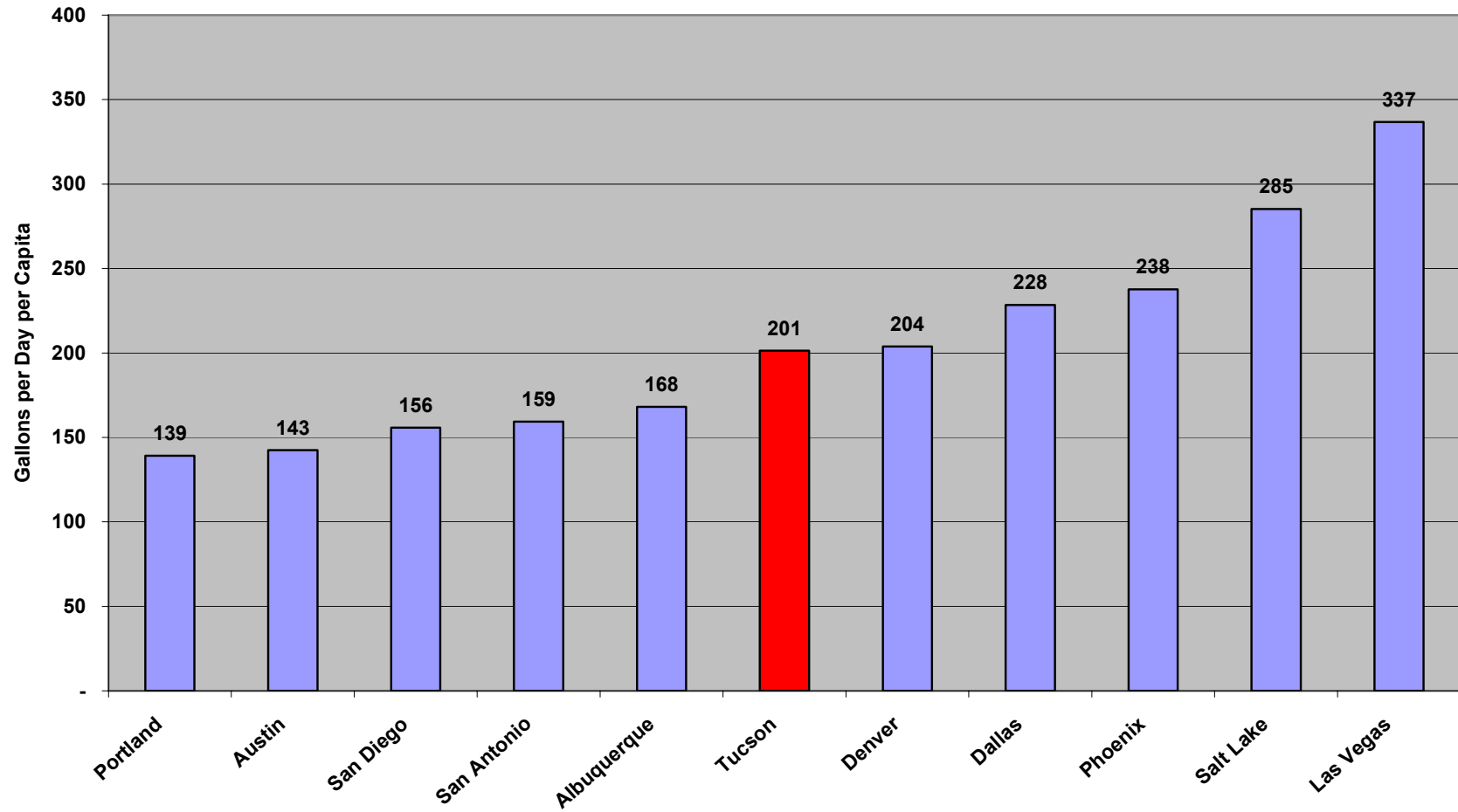
Water Use per Capita

As population grows, there is increasing pressure on the public water supply system. Water utilities across the nation are supporting programs to conserve water and use water more efficiently.

Chart 20 shows the amount of public supply water used per capita in each of the competitor cities in the year 2000. There has undoubtedly been progress in reducing per capita water consumption since that time. Unfortunately we were not able to find comparative data past 2000.

Tucson's water use per capita in 2000 ranked dead center of the competitor cities at 201 gallons per day. Portland and Austin reported the lowest per capita water consumption, both consuming less than 105 gallons per day. Las Vegas had the highest per capita water use at 337 gallons per day.

Chart 20 - Public Supply Water Use per Capita 2000



Source: U.S. Geological Survey, Water Use in the United States

Climate

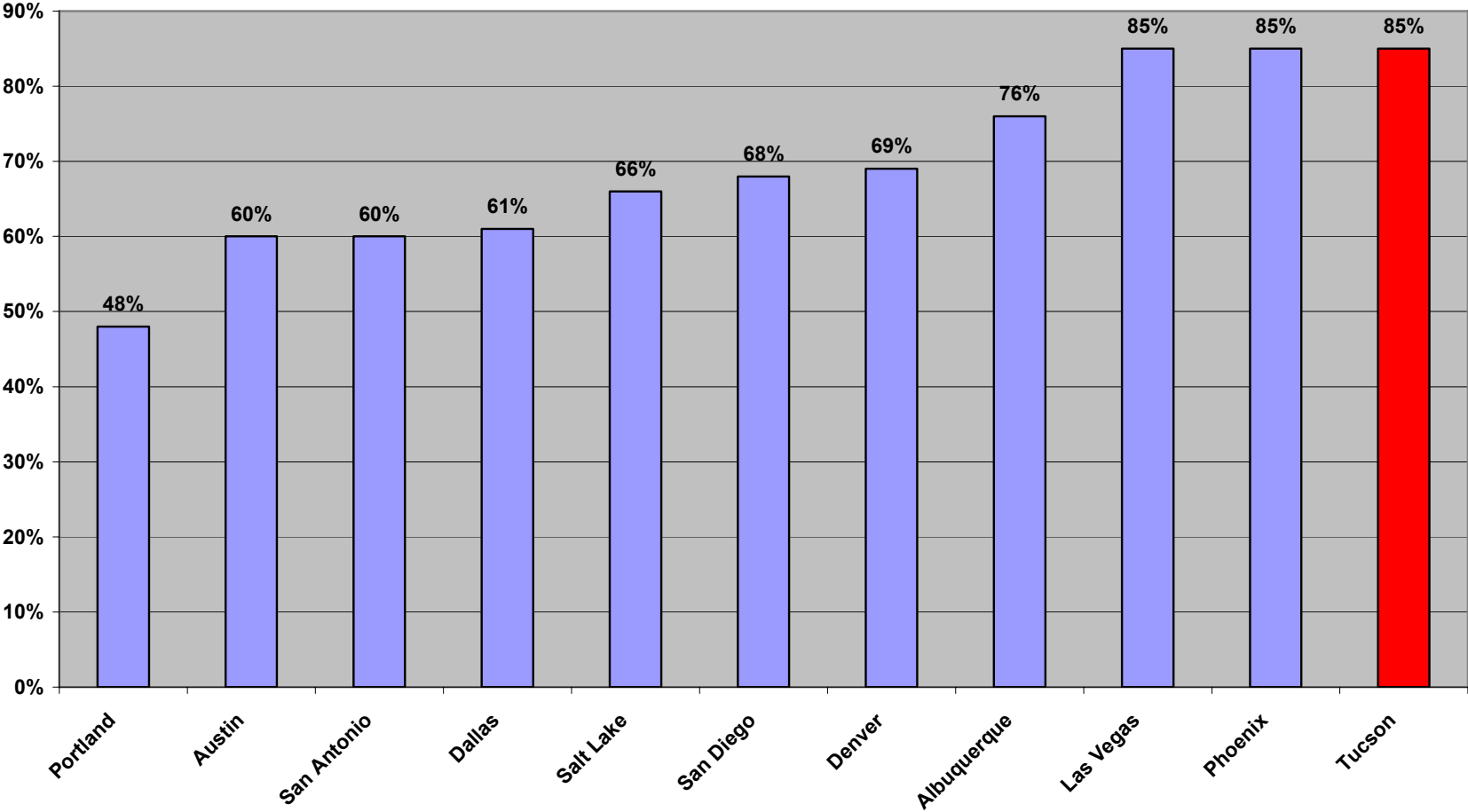
Climate can affect the quality of life in a region. It affects the level of comfort, it drives the cost of heating and cooling buildings, and it allows or restricts outside activities. Tucson's quality of life benefits from its sunny climate and its mild winters. However the high summer temperatures, along with high air-conditioning costs can make the climate uncomfortable and expensive for residents.

Chart 21 shows the percentage of possible annual sunshine in each of the competitor cities. Tucson, Las Vegas and Phoenix have the highest percentage of possible sunshine of all of the cities. The sun is shining 85% percent of the daylight hours. Portland has the lowest percentage of sunshine. The sun shines only 48% of the daytime hours in Portland. Tucson benefits from its sunny climate as a destination for tourists, retirees, winter visitors and outdoors enthusiasts.

Tucson has the 4th warmest minimum temperatures in January of the competitor cities (see Chart 22). San Diego and Phoenix both have warmer winter temperatures than Tucson. However, Tucson's winter temperatures are much milder than those in Denver, Salt Lake City and Albuquerque.

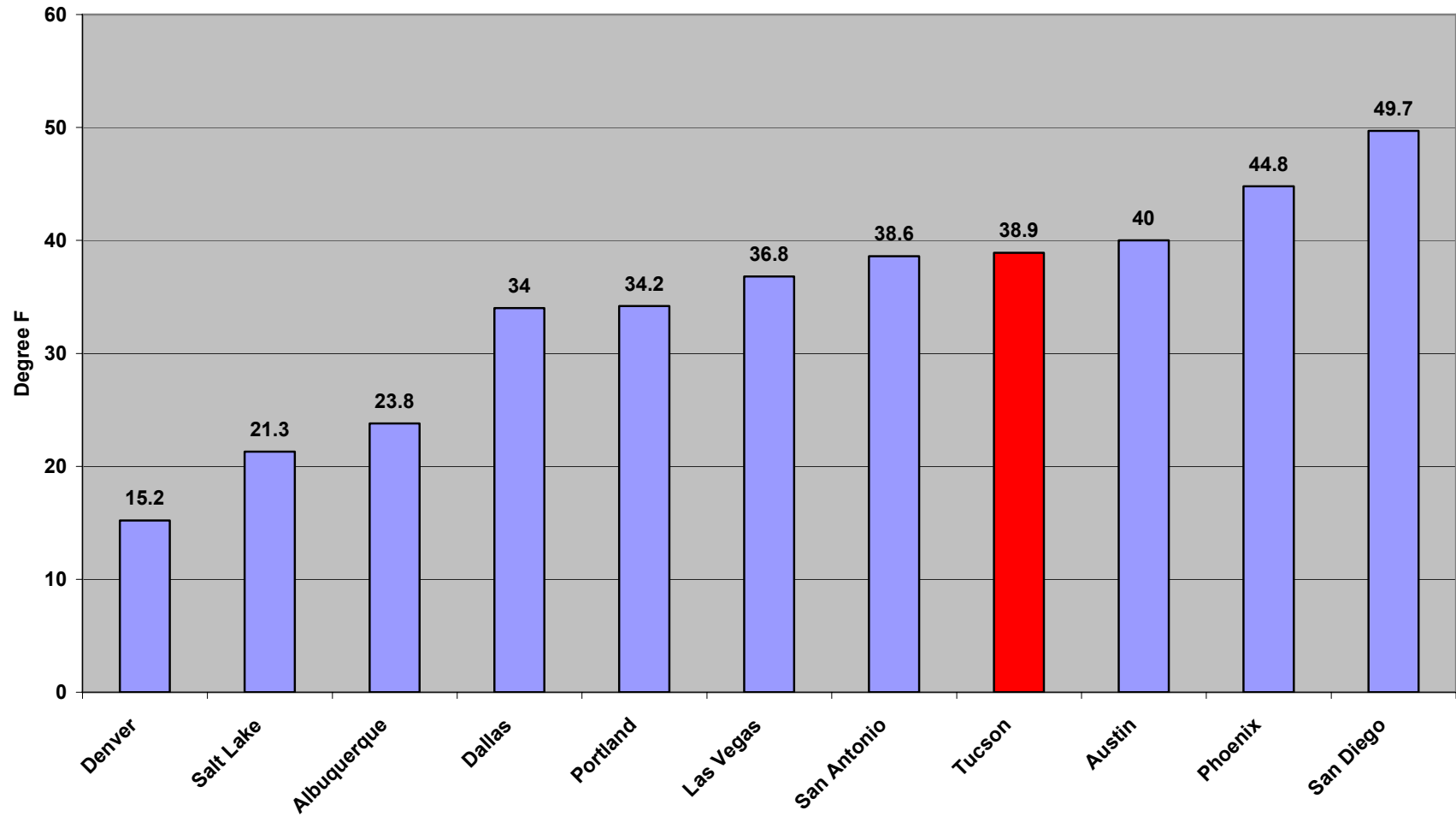
The maximum temperature in July is higher than the temperatures in all of the competitor cities except for Phoenix and Las Vegas (see Chart 23). The normal maximum temperature for July in Tucson is 4° to 7° cooler than that in Las Vegas and Phoenix, respectively. Tucson's July maximum temperature is 4° to 5° hotter than the temperature in the three Texas cities, but the lower humidity in Tucson makes the higher temperature feel more comfortable than the same temperature in a more humid climate.

Chart 21 - Percent of Annual Possible Sunshine



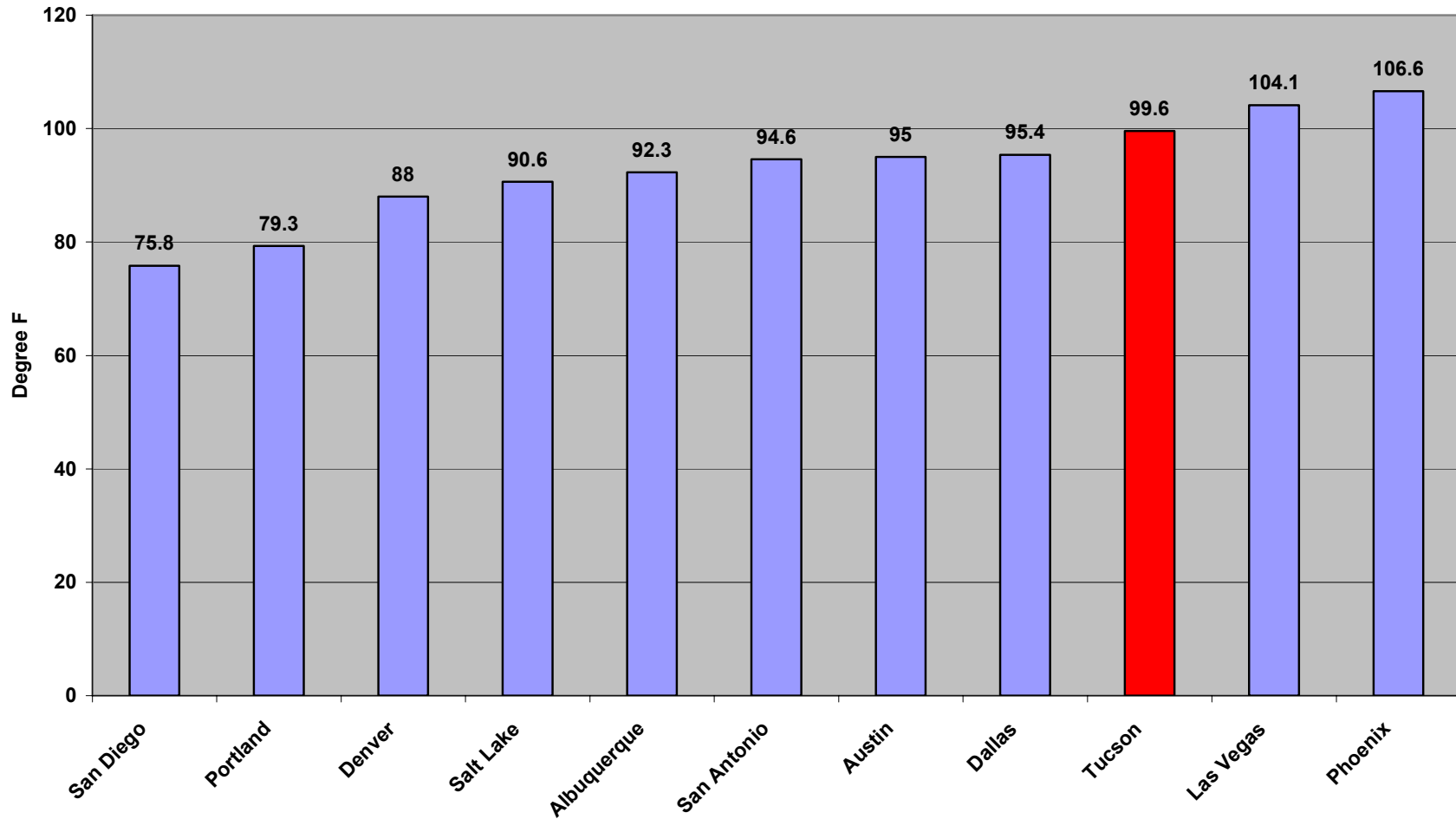
Source: National Oceanic and Atmospheric Administration, National Climatic Data Center

Chart 22 - Normal Daily Minimum Temperatures in January



Source: National Oceanic and Atmospheric Admin., National Climatic Data

Chart 23 - Normal Daily Maximum Temperatures in July



Source: National Oceanic and Atmospheric Admin., National Climatic Data Center

Waste Recycling

Tucson has been improving its performance on the amount of waste recycling relative to Phoenix. Between 2002 and 2007, Tucson's percentage of households on curbside service increased from 64.7% to 69.5%. The number of households on curbside service increased 15.4%. Additionally, the amount of recycled material tripled. As a result, Tucson's percentage of recycled material to landfill increased from 10% to 22%. Over the same time period, the ratio of recycled material to landfill in Phoenix stayed at 24%. Tucson has essentially caught up with Phoenix on waste recycling.

Table 2 - Recycling in Arizona: Tucson vs. Phoenix

	FY 2002	FY 2007	%Δ 02-07
Tucson			
Percentage of households on curbside	64.7%	69.5%	7.4%
Households on curbside	124,788	144,000	15.4%
Recycle diversion rate (tons)	20,563	63,149	207.1%
Amount landfilled (tons)	207,367	284,490	37.2%
Recycle to landfill percent	10%	22%	
Phoenix			
Percentage of households on curbside	66.3%	63.1%	-4.8%
Households on curbside	308,873	340,463	10.2%
Recycle diversion rate (tons)	172,572	192,660	11.6%
Amount landfilled (tons)	706,246	786,448	11.4%
Recycle to landfill percent	24%	24%	

Source: Arizona Department of Environmental Quality

Priority/Next Steps

Based on recommendations from the Blueprint Mobilization Council, top action priorities in Livable Communities include:

- Determining the necessity of a regional water authority
- Determining a policy for proper ways to cover infrastructure costs
- Publicizing good news and better branding and marketing of the region's strengths, including arts and culture
- Challenge healthcare community to develop stronger collaborations
- Creating a sustainable beautification plan and strong public arts plan
- Making transportation infrastructure funding a priority
- Establish dedicated funding for the arts
- Strengthen regional cooperation for the Metropolitan Tucson Convention and Visitors Bureau
- Establish a comprehensive land use growth plan
- Accelerate RTA projects and speculative building of commercial space
- Maintain diversity in planning for a livable community
- Streamline social service agencies

SOURCES

Livable Communities²

- *Air quality standards (days met)*: U.S. Environmental Protection Agency (<http://www.epa.gov/air/data/index.html>)
- *Energy consumption rates*: State Energy Data, Energy Information Admin., U.S. Dept. of Energy (http://www.eia.doe.gov/emeu/states/_seds.html)
- *Water consumption rates*: USGS Water Use in the United States (<http://water.usgs.gov/watuse/>)
- *Percent of total waste disposal that is recycled*: Arizona Department of Environmental Quality
- *Housing affordability*: NAHB/Wells Fargo Housing Opportunity Index, National Association of Home Builders (<http://www.nahb.org/page.aspx/category/sectionID=135>)
- *Average work trip commute times*: U.S. Census Bureau, 2006 American Community Service table B08012
- *Modes of travel to work*: U.S. Census Bureau, 2006 American Community Service table B08006
- *Crime rates*: Federal Bureau of Investigation, Crime in the United States (<http://www.fbi.gov/ucr/>)
- *Quality health care*
 - *Number of Physicians*: U.S. Census Bureau, State and Metropolitan Area Data Book: 2006
 - *Healthcare Coverage*: U.S. Department of Health and Human Services, Centers for Disease Control and Data Prevention, 2006. Behavioral Risk Factor Surveillance System Survey
- *Environmental measurable*
 - Climate*: National Oceanic and Atmospheric Administration, Comparative Climatic Data
- *Cost of Living*: Council for Community and Economic Research, ACCRA Cost of Living Index



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