



Demographics

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Austin Area Sustainability Indicators (2016) – Demographics

Table of Contents

Austin Area Sustainability Indicators (2016) – Demographics	1
Demographics.....	2
Population.....	2
Population Growth Rate	2
Population Estimates and Projections	2
Components of Population Change	3
Domestic Migration Pattern	4
Households and Families.....	4
Households and Family Size.....	4
Household Composition	5
Housing Unit Occupancy.....	6
Population Cohorts	7
Age Groups in the Austin Area.....	8
Youth by Race/Ethnicity	8
Elders by Race/Ethnicity	9
Race and Ethnicity.....	9
Hispanic Age Groups.....	10
Distribution of Hispanic Population.....	11
Population Distribution	11
Distribution by County.....	12
2014 Population Distribution by Census Block Group	12
Summary and Conclusion.....	13
Appendix A: Glossary	14
Appendix B: Bibliography	16

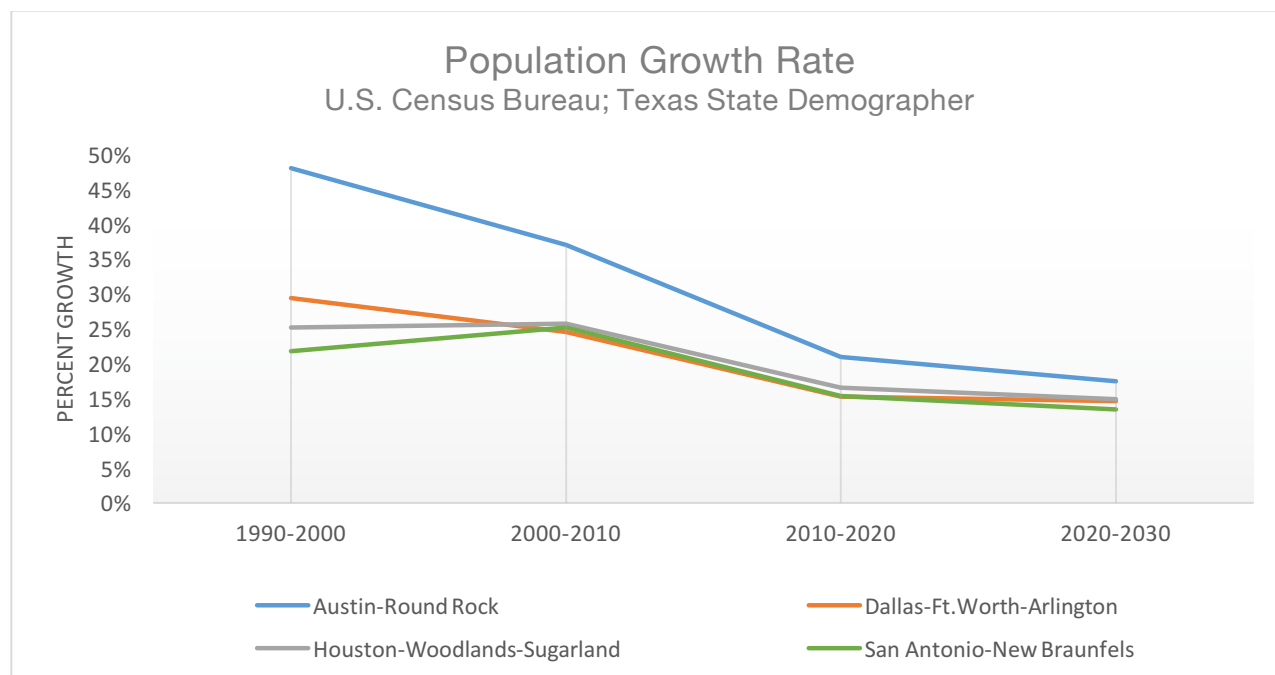
Demographics

Population

Population growth – net migration and natural increase (births minus deaths) – is an important measure of community growth. Higher population growth rates can be due to employment growth, the quality of local services, schools, and leisure opportunities. Additionally, new growth leads to increased demand for housing, goods, services, and infrastructure—each of which spur regional economic development. A carefully monitored statistic, population levels and growth rates are the basis for a myriad of public decisions related to infrastructure and community planning. Therefore, the nature of population growth is critical and is the fundamental driver behind many of the Austin Area sustainability data trends, from education to traffic to housing. The direction and rate of change in these numbers shape the pursuit of sustainability in the region.

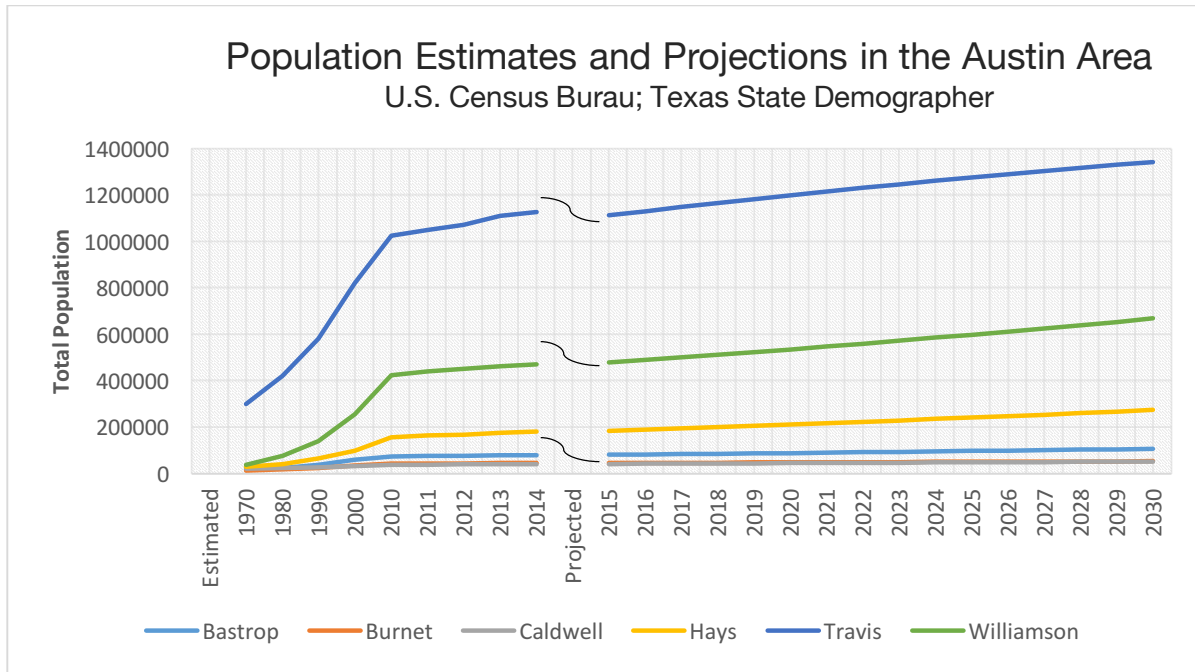
Population Growth Rate

The Austin-Round Rock Metropolitan Statistical Area (MSA), comprising five counties – Bastrop, Hays, Caldwell, Travis, and Williamson – is the fastest growing metropolitan area in Texas. The Austin-Round Rock MSA growth rate peaked at 48% from 1990 to 2000, and the area is projected to grow 42% between 2010 and 2030 according to population projections, with half of the migration rate of 2000 to 2010 (0.5 scenario). Beyond 2030, we may see the growth rate leveling off to match other regions in Texas.



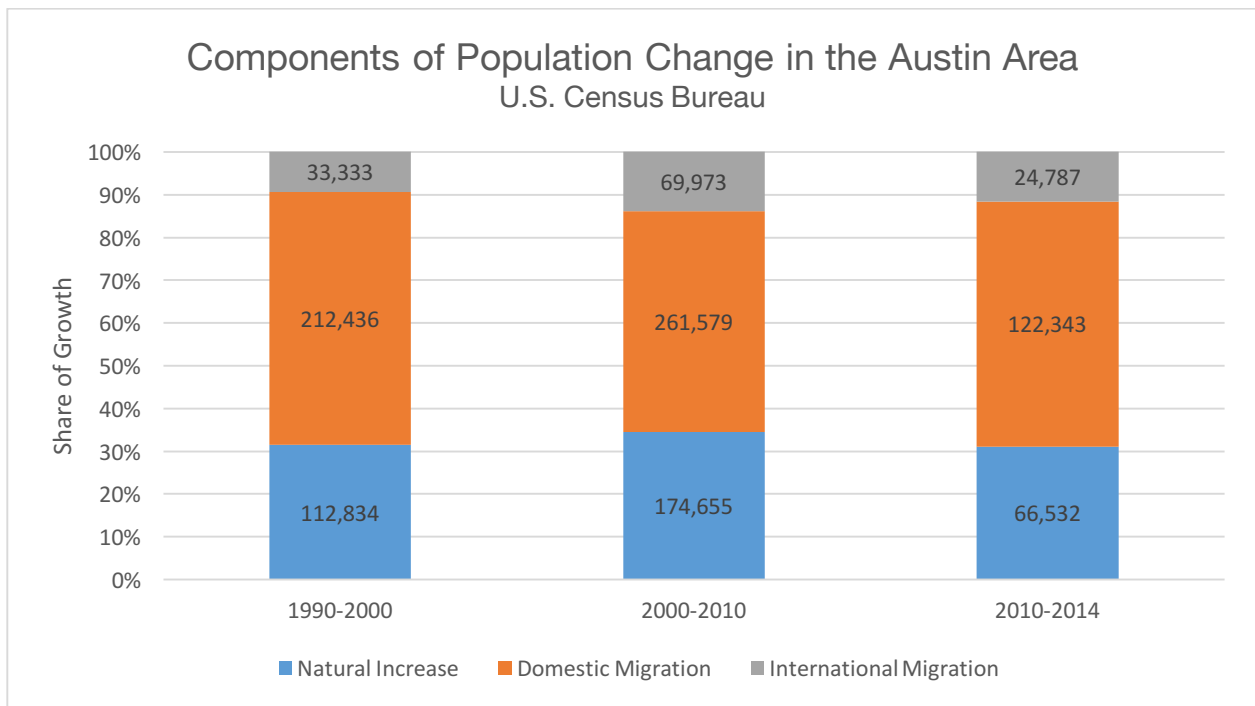
Population Estimates and Projections

Travis and Williamson counties have increased their respective populations roughly by 200,000 people every decade since 1990 and is predicted to continue to grow at a similar pace for the foreseeable future. In addition to Travis County and Williamson County, Hays County is projected to grow at an increasing rate. In fact, since 2010, Hays County has the largest rate of growth with 14.4% followed by Williamson (11%), Travis (10%), Bastrop (7%), Burnet (4%), and Caldwell (3%).



Components of Population Change

Population growth in the Austin area is widely attributed to migration, which includes both domestic and international migration. Net migration accounts for 67.6% of the total population growth from 2010 to 2014. By 2014, the rate of domestic migration surpassed the previous decade. Though the region experienced a rapid net in-migration, natural increases are still account for 30% of the increased population from 2010 to 2014.



Domestic Migration Pattern

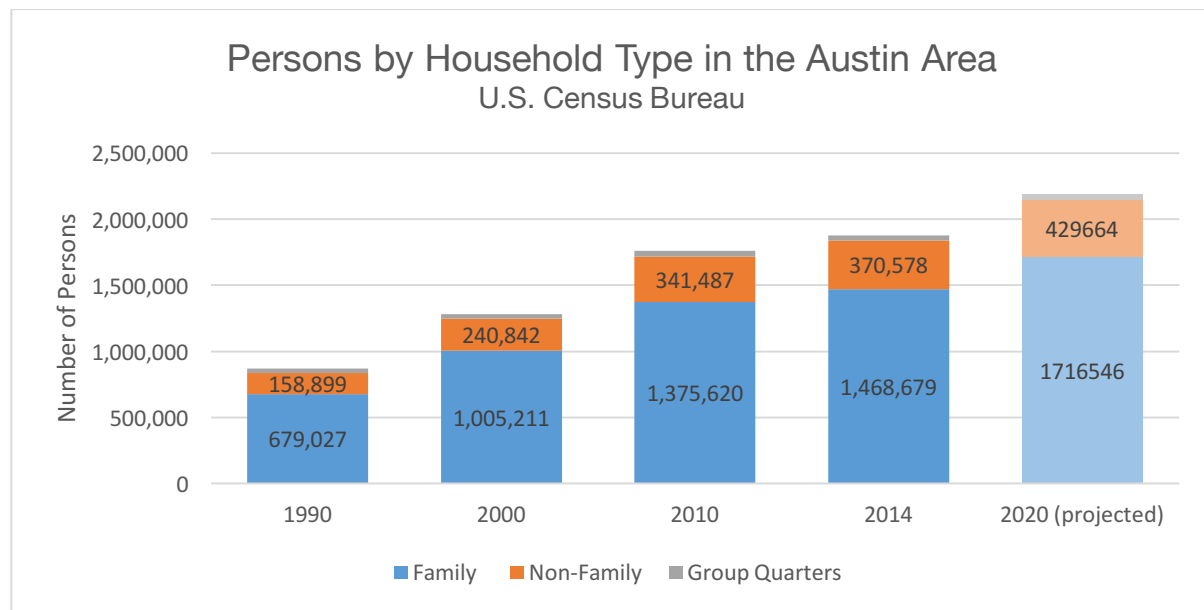
With more than 50% of the population growth attributed to domestic migration, the Austin area is a leader in relocation activity. Most new-comers migrate from different counties within the state of Texas. Relocated Texans accounted for approximately 20,000 new people in the region in 2013. Harris County saw the greatest transfer of new residents to the Austin area, with a net migration of 4,107 people from Harris County, followed by Dallas (1,814), Bell (1,256) and Tarrant (1,083) counties. Outside of Texas, the majority of domestic migrants come from the states of California and New Mexico. Williamson County had a net migration flow of more than 17,000 people in 2013, the largest among the Austin area counties.

Households and Families

The population can also be viewed by the way individuals live together. The broadest unit is a “household,” which consists of all the people who occupy a housing unit. A house, an apartment or group of rooms, or a single room is regarded as a housing unit when occupied or intended for occupancy as independent living quarters. The main subset is a “family household” which is a household maintained by a householder who is in a family (a group of two people or more related by birth, marriage, or adoption and residing together), and includes any unrelated people who may be residing there.

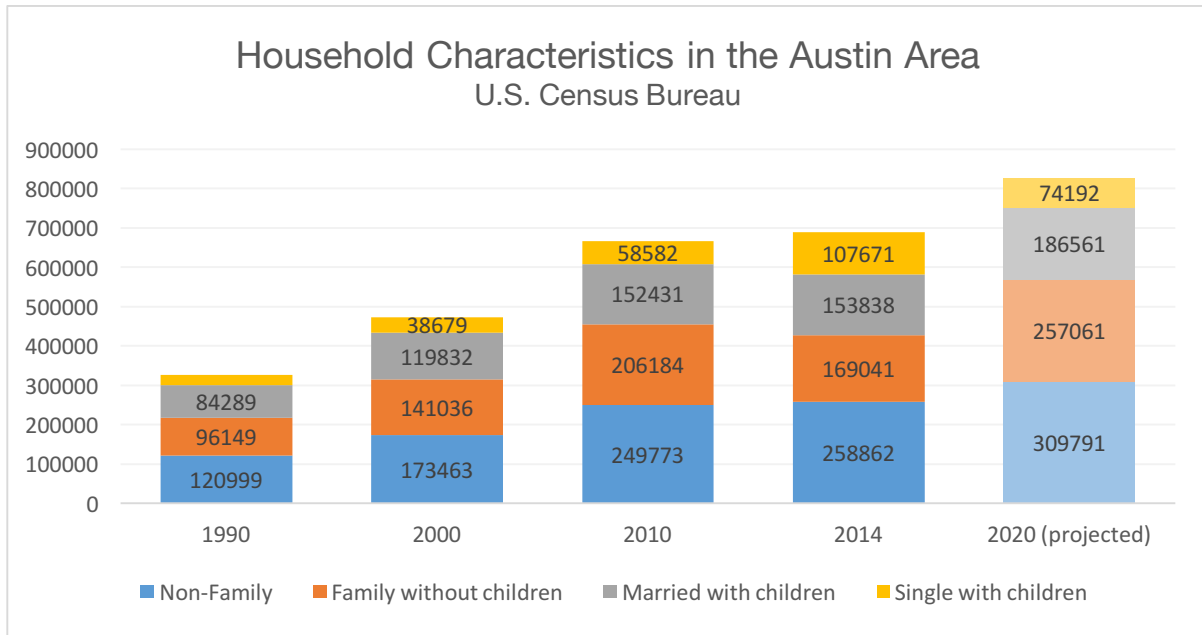
Households and Family Size

Persons living in family and non-family households increased slightly from 2010 to 2014. Those living in non-family households had a faster rate of growth at 8.5%, followed by people living in family households at 6.7%. People living in group quarters decreased by 5%. From 2010 to 2014, the region saw an increase in both average household size (2.58 to 2.66) and average family size (3.31 to 3.37).

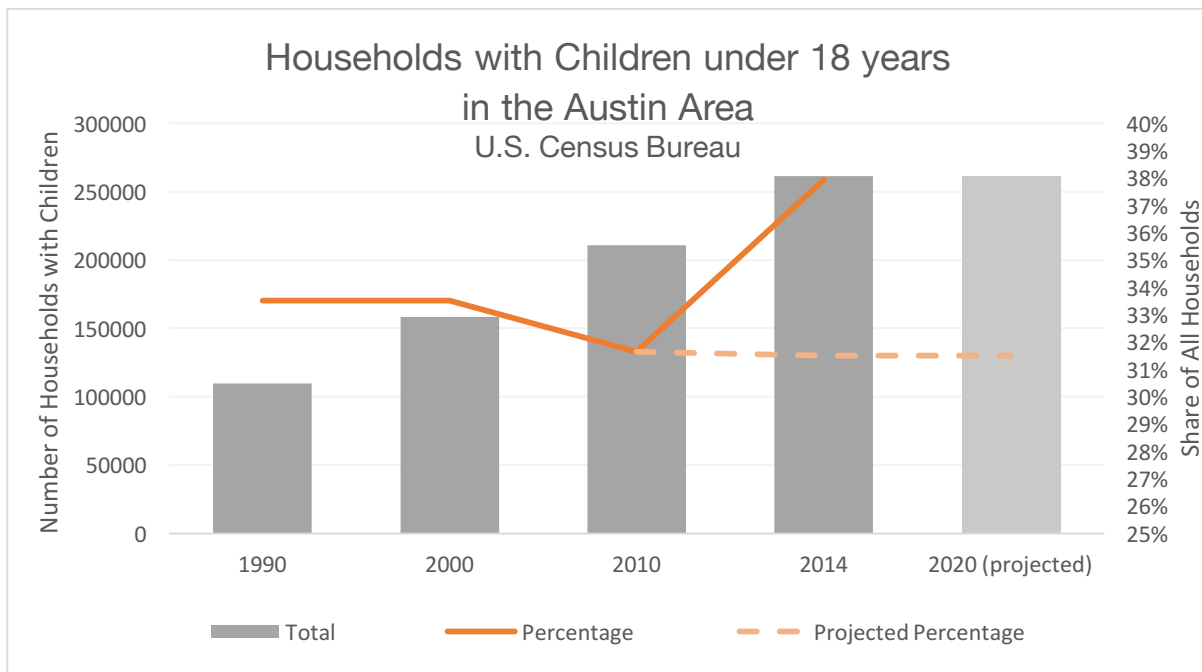


Household Composition

From 1990 to 2010, the distribution of housing units by family type and presence of children remained fairly consistent, even as the total numbers increased across all family compositions. In 2014, single households with children nearly doubled from 2010, outpacing 2020 projections. There was incremental growth for non-family households and married families with children, while families without children decreased by 18% from 2010 to 2014.

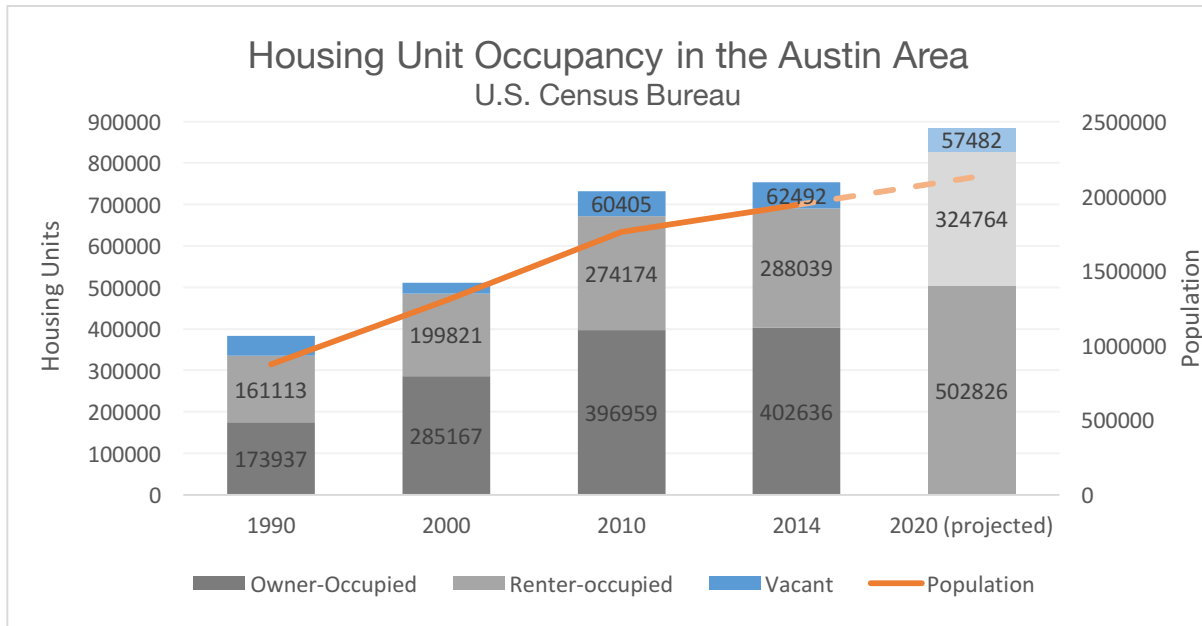


The number of households with children continued to increase at a steady rate in the Austin area. The share of households dramatically increased by 6 percentage points from 2010 to 2014, outpacing initial 2020 projections that the percentage of households with children would remain flat.



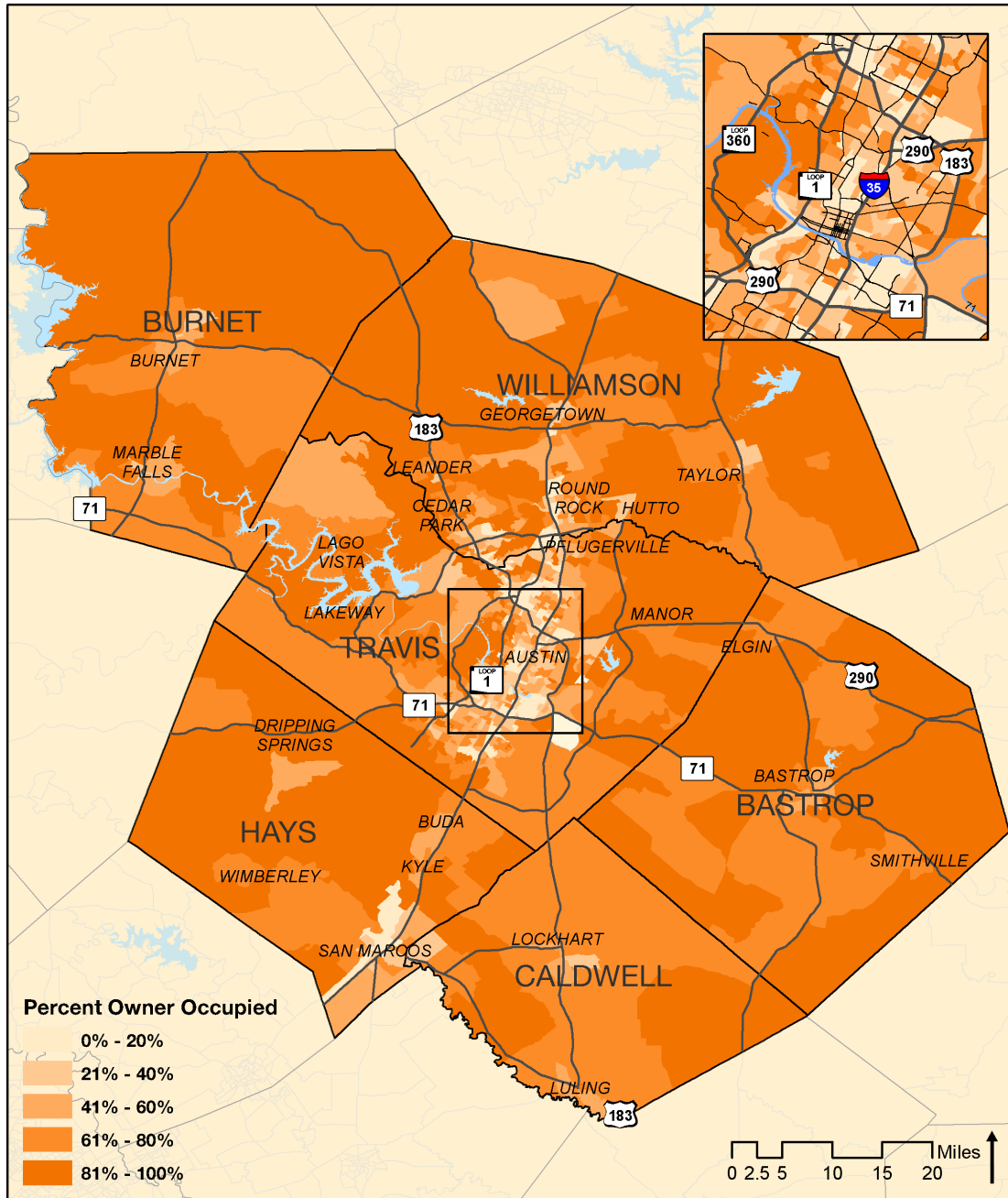
Housing Unit Occupancy

Though the region's population grew by 10% from 2010 to 2014, housing only grew by 3%. Occupied housing units in 2010 and 2014 made up 91% of housing units. The proportion of housing units that are owner-occupied and renter-occupied stayed the same from 2010 to 2014. In 2014, the Austin-Round Rock MSA rental vacancy rate was 5.3%, lower than the U. S. (6.9%) and Texas (8.3%) rates.



Owner occupied housing is mostly out of the central Austin metro area, as the map below shows.

Percent Owner Occupied Housing (2014)



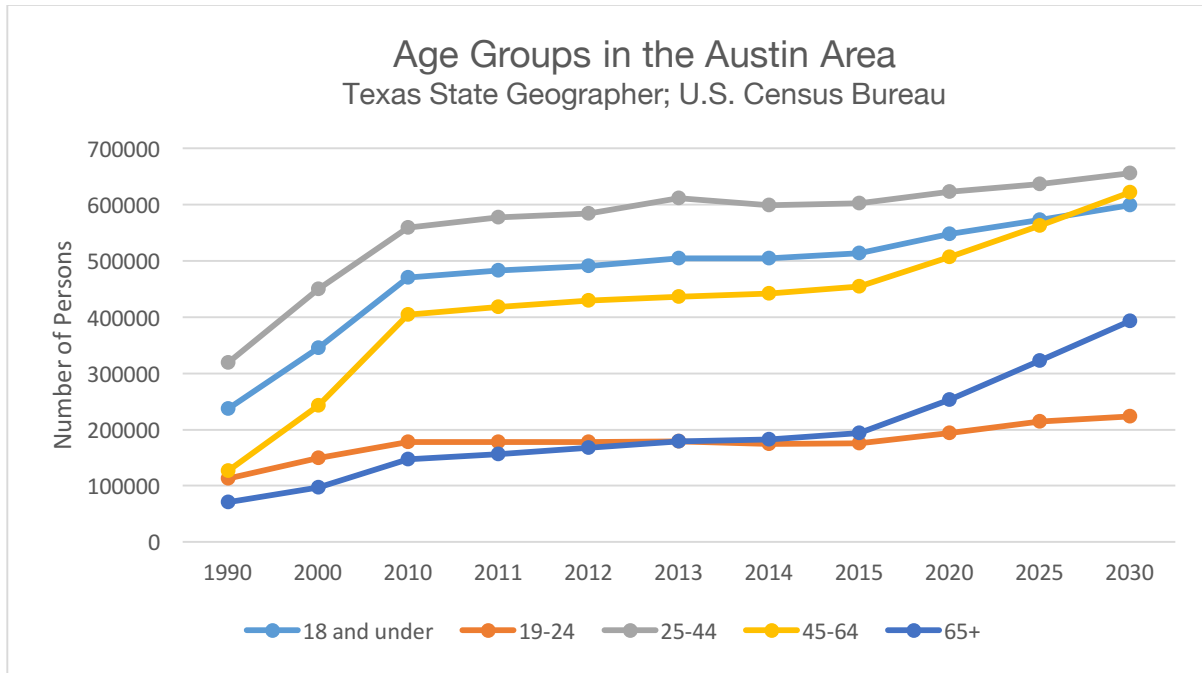
Data Source: American Community Survey

Population Cohorts

The shifting patterns within our overall population – both by race/ethnicity and by age – illustrate that the Austin area continues to progress through a significant demographic shift similar to both the state and the nation. This shift will affect not only how we manage the challenges of growth today, but also how we think about the future.

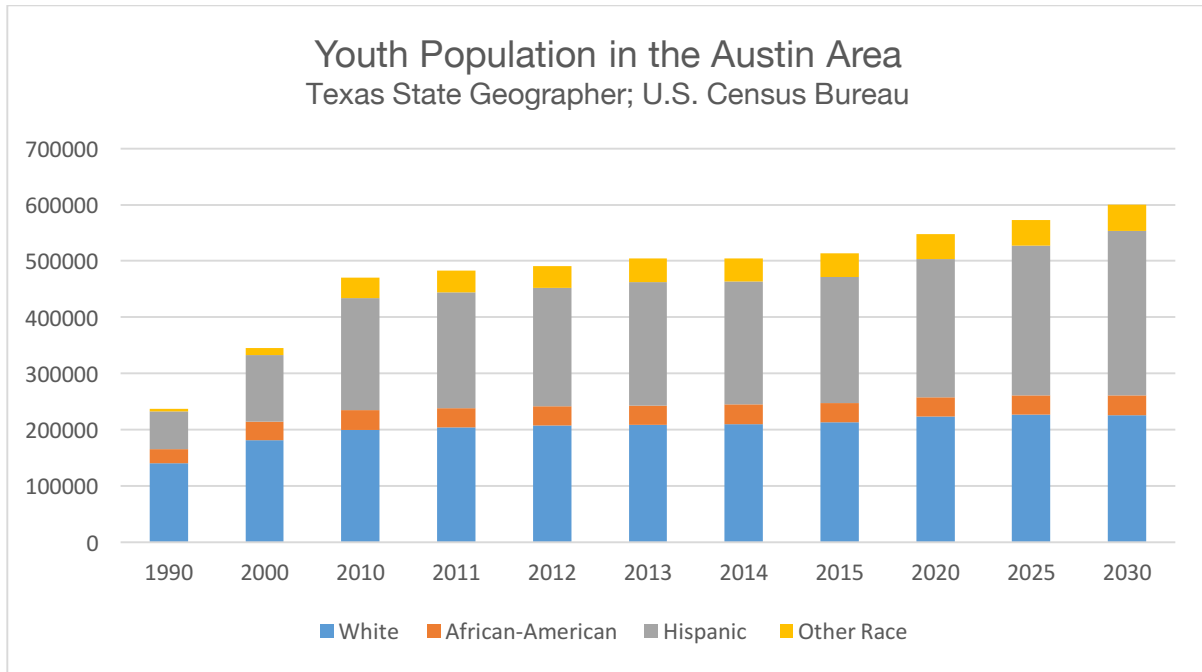
Age Groups in the Austin Area

The Austin area has a higher proportion of workforce-aged population than other age cohorts. When compared to the other age categories, residents 65 years of age or older are projected to grow at the fastest rate, closely followed by people between 45 and 64 years of age. The young adult population between 19 and 24 years of age are expected to grow at the slowest rate.



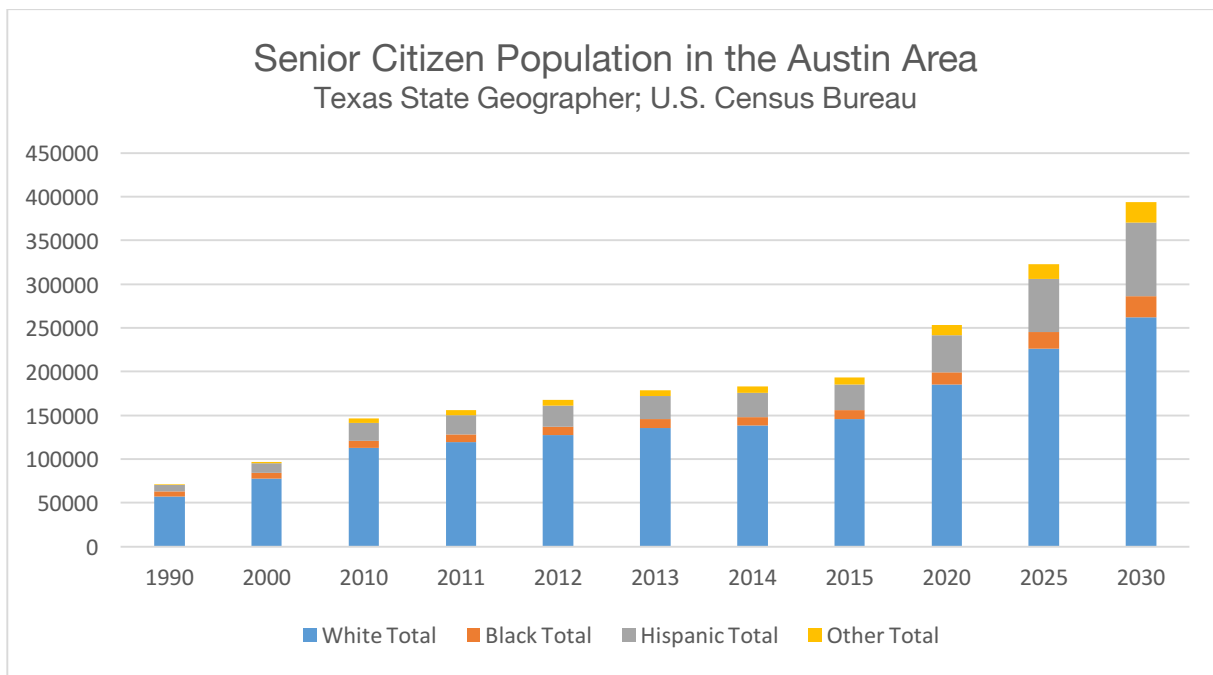
Youth by Race/Ethnicity

Youth 18 years of age and under are projected to grow at a steady pace, with Hispanics becoming the majority of the youth population by 2020. The White and African-American youth population is projected to remain flat in the future, with the latter making up the smallest proportion of the total youth population.



Elders by Race/Ethnicity

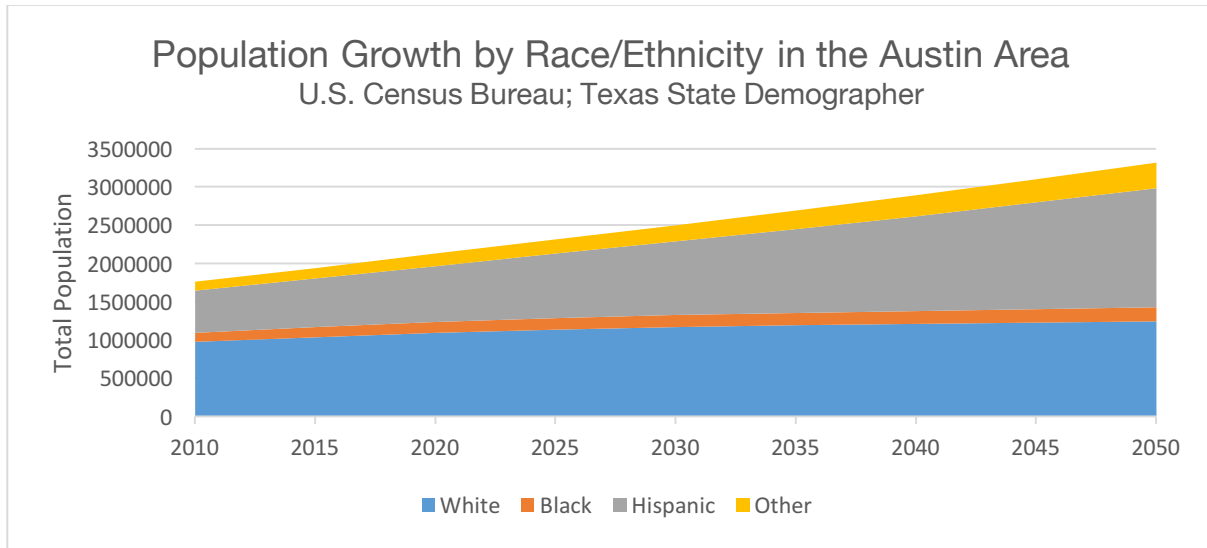
In contrast to the youth population, the majority of individuals 65 years and older are White and are projected to remain the majority well into the future.



Race and Ethnicity

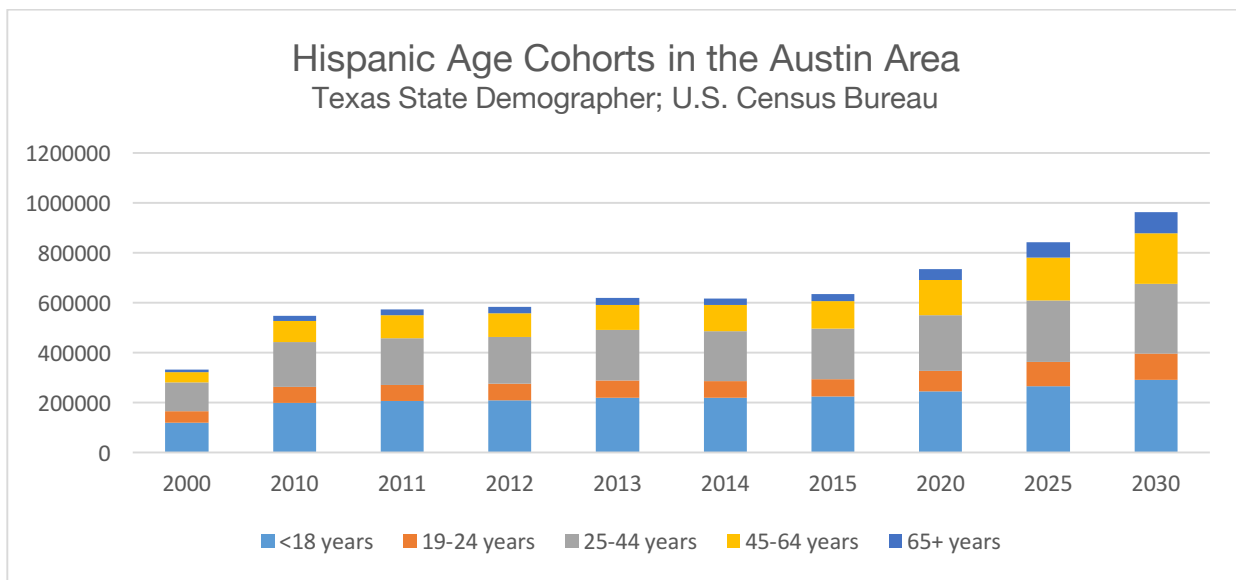
The Austin area is experiencing changes to its demographic makeup. Already one of the most diverse regions in the State, by 2020 the Austin area will be a majority-minority region in which no ethnic group will exist as the majority of the region’s population. Individuals with Hispanic backgrounds are forecasted to become the majority by 2040 and projected to increase to 50% of the

population by 2050. Other races and ethnicities will continue to increase as well, while White and African-American residents remain flat.



Hispanic Age Groups

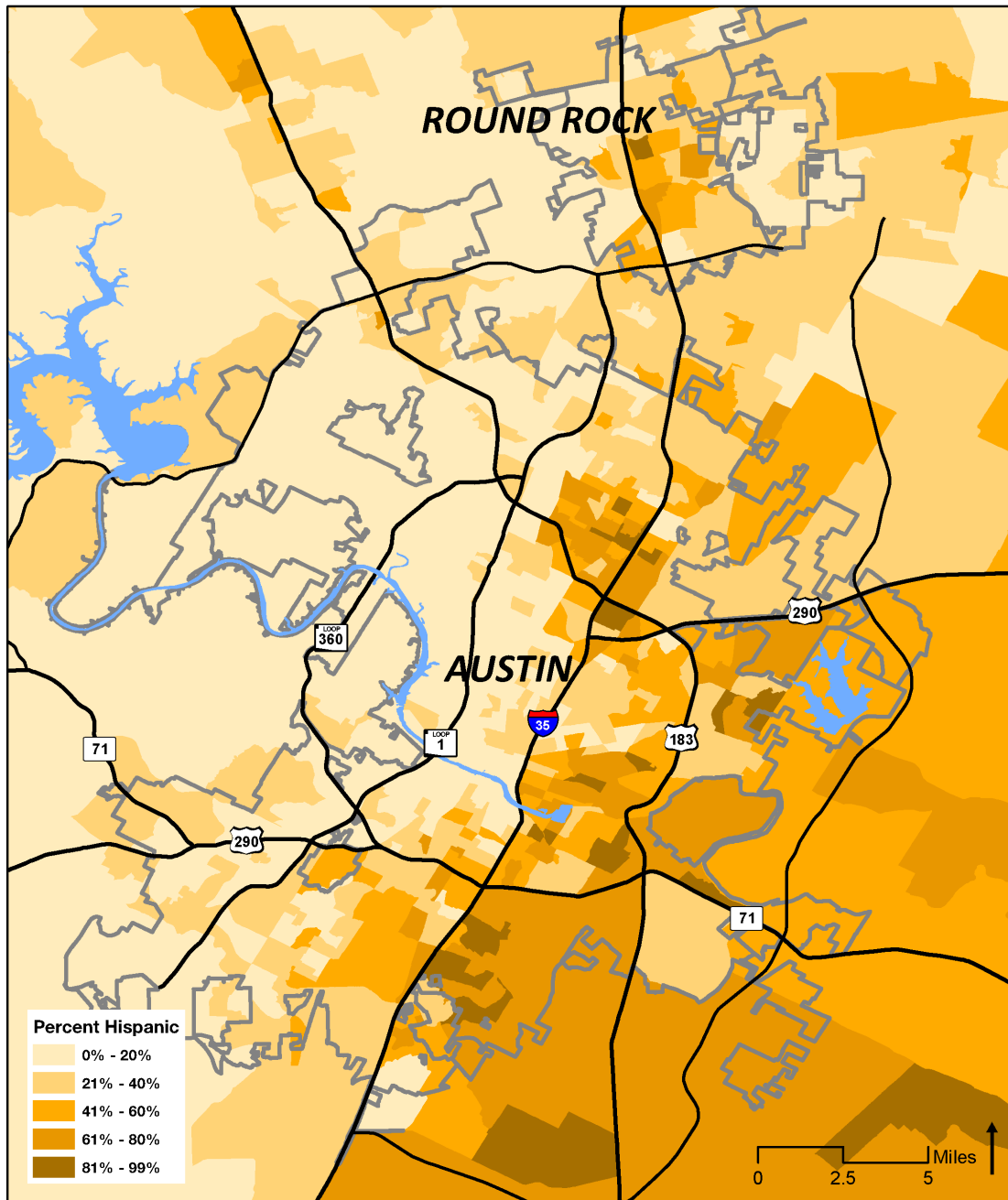
Hispanics represent the largest minority population within the Austin area. In 2015, Hispanics made up 33% of the total population. Each age group within the Hispanic population is projected to grow at a steady pace. However, young adults and the working-age population (19 to 64 years) will make up the majority of the Hispanic population. Though the youth population (18 and under) grew by 73% between 2000 and 2010, it is projected to slow down and increase by only 19% by 2020.



Distribution of Hispanic Population

The Hispanic population of Austin-Round Rock MSA is concentrated east of Interstate 35.

Hispanic Population Distribution (2014)



Data Source: American Community Survey

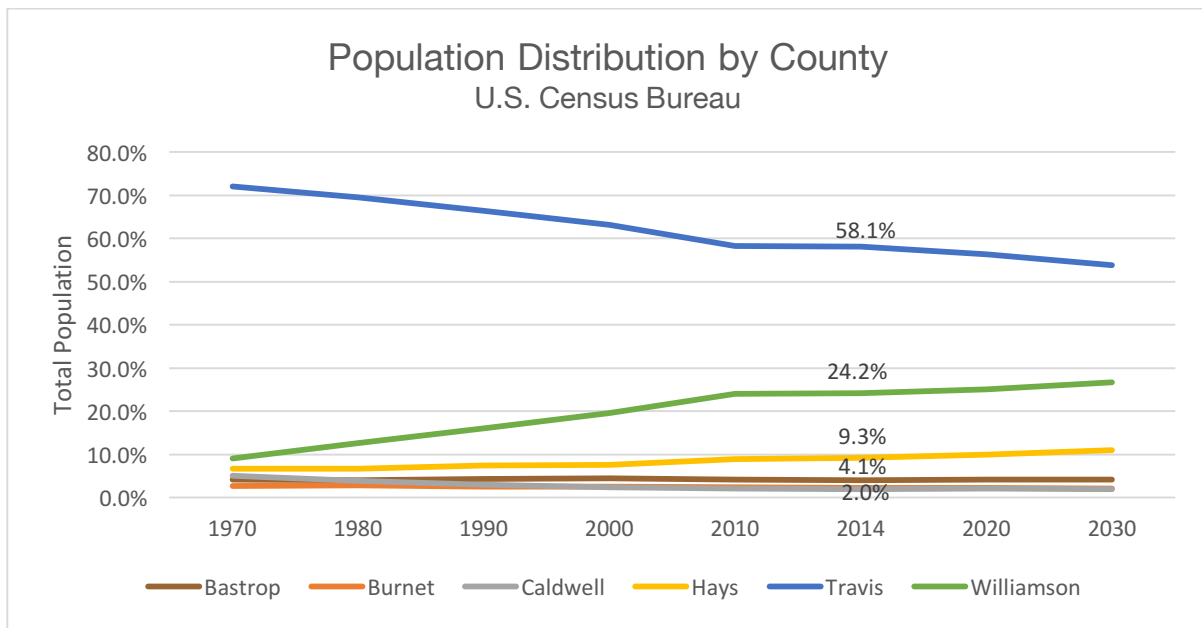
Population Distribution

The population distribution patterns growth management decisions and planning (or lack thereof) and our sensitivity to managing the allocation of resources to support the distribution of the population. Population growth and distribution are shaped by the values of a community. How well

we incorporate sustainability into our values will determine how well we benefit or are hindered by ongoing growth.

Distribution by County

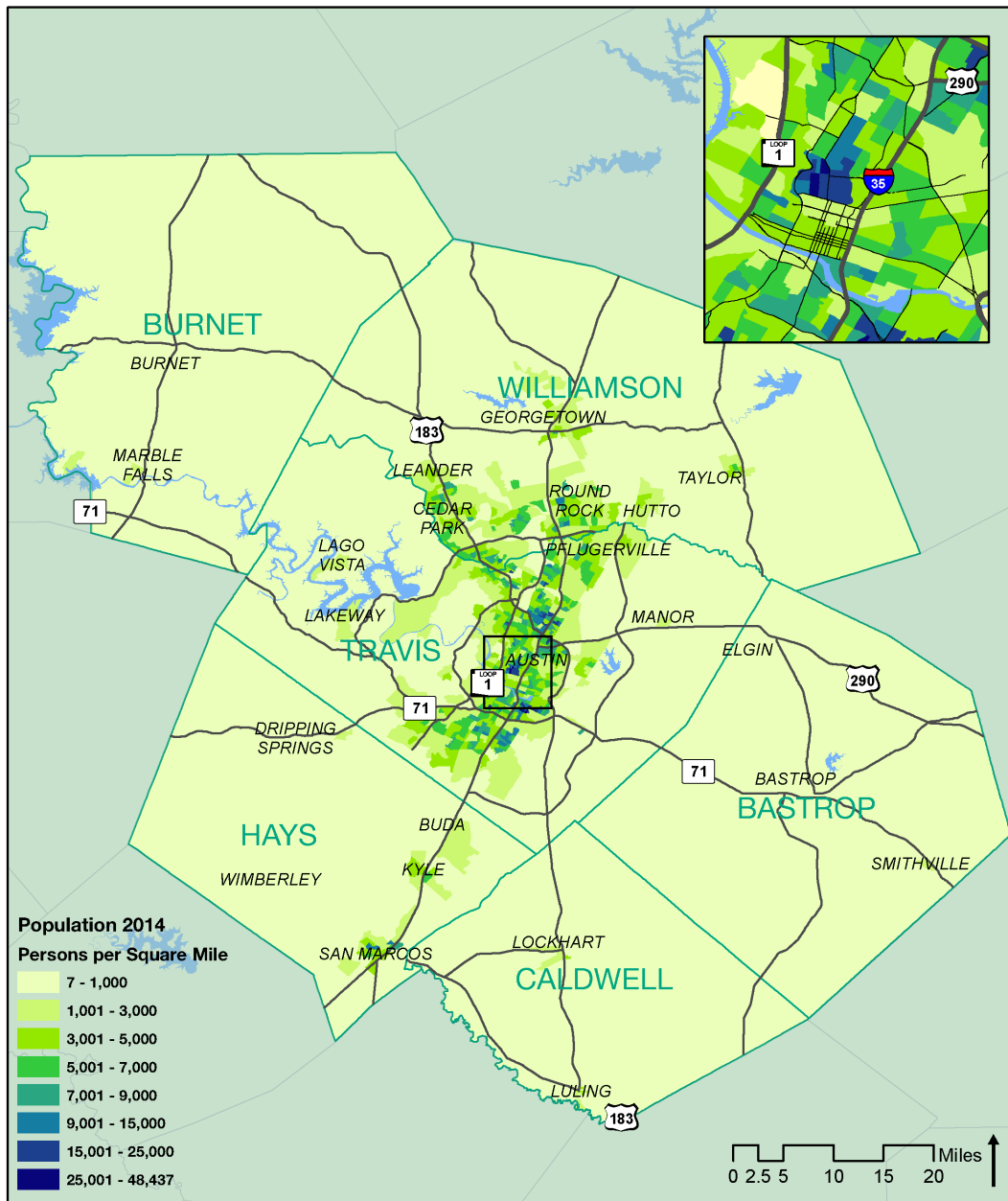
Travis County has always held the largest share of the region’s population, which at its height in 1970 housed 72% of Austin area residents. Since then, Travis County’s share of the population has been in decline; in 2014 it was at 58.1% and is projected to fall to 53.8% by 2030. By contrast, Williamson and Hays counties are projected to increase their share, and in 2014 they held 24.2% and 9.3% of the region’s population, respectively. Bastrop, Burnet, and Caldwell counties’ share of the region’s population remains flat at 4.3%, 2.1%, and 2.1%, respectively.



2014 Population Distribution by Census Block Group

As of 2014, the population density of the Central Texas region continues to be concentrated within the City of Austin and along the IH-35 corridor.

2014 Population Density by Block Group



Data Source: American Community Survey

Summary and Conclusion

Demographic and population indicators are critical to understanding the sustainability of an area. Population change, composition, density, distribution, migration and other demographic indicators provide important information about the characteristics of the Austin area and can be used for many purposes including policy development, planning, and program implementation. The demographic indicators intersect with all of the other sustainability domains, making them a foundational section for the Austin Area Sustainability Indicators.

Appendix A: Glossary

Components of population change - Demographic events (births, deaths, domestic migration, and international migration) are used to estimate changes in the population during a specified time period

Family Households - A family household may contain people not related to the householder, but those people are not included as part of the householder's family in census tabulations. Thus, the number of family households is equal to the number of families, but family households may include more members than do families. A household can contain only one family for purposes of census tabulations. Not all households contain families since a household may comprise a group of unrelated people or one person living alone.

Group Quarters – Includes all people living in group quarters instead of housing units. Group quarters are places where people live or stay, in a group living arrangement that is owned or managed by an entity or organization providing housing and/or services for the residents.

Household – A household includes all the people who occupy a housing unit (such as a house or apartment) as their usual place of residence. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit such as partners or roomers, is also counted as a household. The count of households excludes group quarters. There are two major categories of households, "family" and "nonfamily."

Household population - All U.S. residents who live in housing units such as single family homes, townhouses, apartments, and mobile homes.

In-Migration – In-migration is the process of people moving *into a new area* in their country to live there permanently.

Migration – Migration includes all changes of residence including moving into, out of, or within a given area. Foreign country, or state, county and city of previous residence is collected and coded.

Migration Scenario – The Texas State Demographer uses three alternative migration scenarios in calculating population projections: one with no migration (*Zero*), one with the migration patterns observed in Texas between 2000 and 2010 (*1.0 scenario*), and one that is half the migration of 2000-2010 (*0.5 scenario*). The data collected features the 0.5 scenario as this is the recommended scenario for conducting long-term planning.

Net Migration - The net migration rate expresses net migration during a specified time period as a proportion of an area's population at the midpoint of the time period. Rates are expressed per 1,000 people.

Non-Family Households – A nonfamily household consists of a householder living alone (a one-person household) or where the householder shares the home only with people to whom he/she is not related (e.g., a roommate).

Population Density – Total population within a geographic entity (for example, United States, state, county, and place) divided by the land area of that entity measured in square kilometers or square miles. Density is expressed as both "people per square kilometer" and "people per square mile" of land area.

Population Projections - Estimates of the population for future dates. They illustrate plausible courses of future population change based on assumptions about future births, deaths, international migration, and domestic migration. Projections are based on an estimated population consistent with the most recent decennial census as enumerated. While projections and estimates may appear similar, there are some distinct differences between the two measures. Estimates usually are for the past, while projections typically are for future dates. Estimates generally use existing data, while projections must assume what demographic trends will be in the future. For dates when both population estimates and projections are available, population estimates are the preferred data.

Workforce-Aged Population – The working-age population is the total population in a region, within a set range of ages that is considered to be able and likely to work. The working-age population measure is used to give an estimate of the total number of potential workers within an economy. Each region may have a different range of ages, but typically the ages of 20 to 65 are used.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Demographics	Population Summary	Population Growth Rate	Texas State Demographer	Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Population Summary	Population Estimates and Projections in Central Texas	Texas State Demographer	Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Population Summary	Components of Population Change	U.S. Census Bureau	U.S. Census Bureau, Population Estimates, https://www.census.gov/popest/research/eval-estimates/eval-est2010.html . Accessed 3 March 2016.
Demographics	Household Summary	Persons by Household Type in Central Texas	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B26001: Group Quarters; B09019: Household Type
Demographics	Household Summary	Household Characteristics	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B11003: Family type by Presence and Age of own children under 18 years; S1101: Households and Families; U.S. Census Bureau, Census Demographic Profile DP-1
Demographics	Household Summary	Households with Children under 18 years	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B11003: Family type by Presence and Age of own children under 18 years
Demographics	Household Summary	Housing Unit Occupancy	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates S1101: Households and Families
Demographics	Household Summary	Owner-Occupied Housing (map)	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B25003: Occupied Housing Units
Demographics	Distribution Summary	Population Distribution by County	Texas State Demographer	Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Distribution Summary	Population Density by sq mile (map)	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B01003: Population

Demographics	Cohorts Summary	Age Groups	U.S. Census Bureau; Texas State Demographer	U.S. Census Bureau, Census 1990-2010, Summary File 1, Table P001, using American FactFinder, < http://factfinder2.census.gov >, (3 March 2016); Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Cohorts Summary	Youth Population in Central Texas	U.S. Census Bureau; Texas State Demographer	U.S. Census Bureau, Census 1990-2010, Summary File 1, Table P001, using American FactFinder, < http://factfinder2.census.gov >, (3 March 2016); Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Cohorts Summary	Senior Citizen Population in Central Texas	U.S. Census Bureau; Texas State Demographer	U.S. Census Bureau, Census 1990-2010, Summary File 1, Table P001, using American FactFinder, < http://factfinder2.census.gov >, (3 March 2016); Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Cohorts Summary	Population Growth by Race/Ethnicity in Central Texas	U.S. Census Bureau; Texas State Demographer	U.S. Census Bureau, Census 1990-2010, Summary File 1, Table P001, using American FactFinder, < http://factfinder2.census.gov >, (3 March 2016); Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Cohorts Summary	Hispanic Age Cohorts	U.S. Census Bureau; Texas State Demographer	U.S. Census Bureau, Census 1990-2010, Summary File 1, Table P001, using American FactFinder, < http://factfinder2.census.gov >, (3 March 2016); Texas State Demographer, Population Projection and Estimates, http://osd.texas.gov . Accessed 7 Jan 2016.
Demographics	Cohorts Summary	Distribution of Hispanic Population in Central Texas	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 yr estimates B03003: Hispanic or Latino Origin



Public Safety

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Contents

Public Safety.....	1
Community Safety	2
Uniform Crime Rate (UCR).....	2
Violent Crime	3
Perception of Violent Crime.....	3
Property Crimes	4
Safe Families	5
Family Violence	5
Victims in Family Violence Shelters	6
Adult Abuse.....	6
Child Abuse	7
Equity in Law Enforcement.....	8
Juvenile Arrests	8
Adult Arrests	9
Adult Arrests by Race/Ethnicity.....	9
Hate Crimes.....	10
Nature of Hate Crimes	11
Perception of Equity in Law Enforcement	11
Summary and Conclusion.....	12
Appendix A: Glossary	13
Appendix B: Bibliography	14

Public Safety

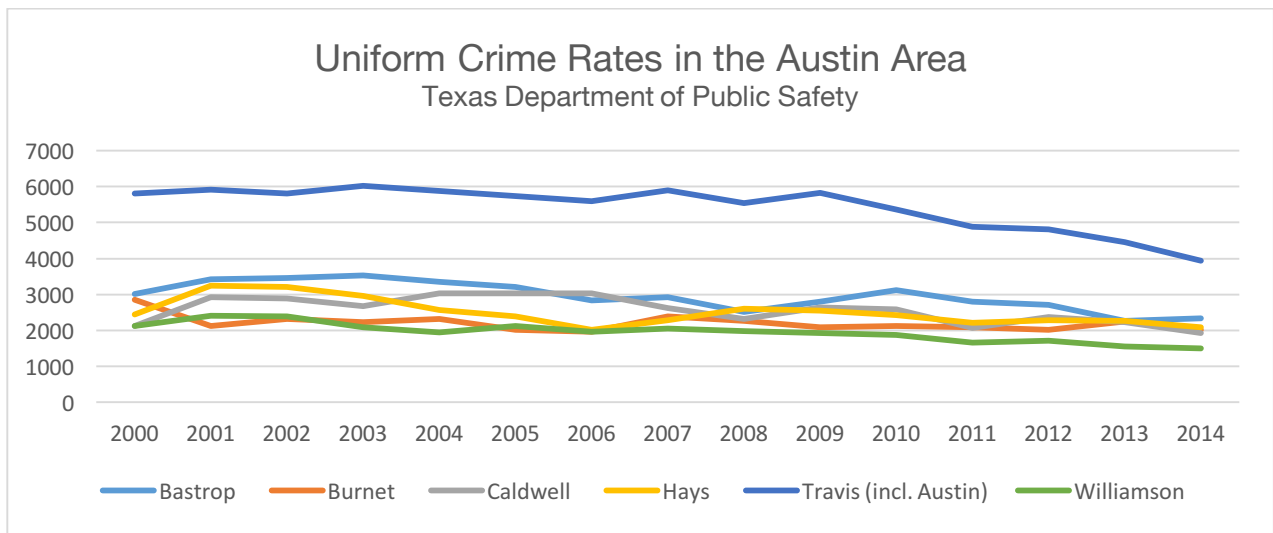
Public safety indicators, such as crime rates, have important social and economic implications for the development of communities, especially at the neighborhood level. They can impact perceptions of resident safety and community involvement, and consequently demographic dynamics of a region. High crime rates can also lead to gentrification as geographically mobile households relocate to improve perceptions of safety and neighborhood satisfaction. Increased social involvement and community engagement by residents have been linked to reduced crime rates and consequently improved resident quality of life.

Community Safety

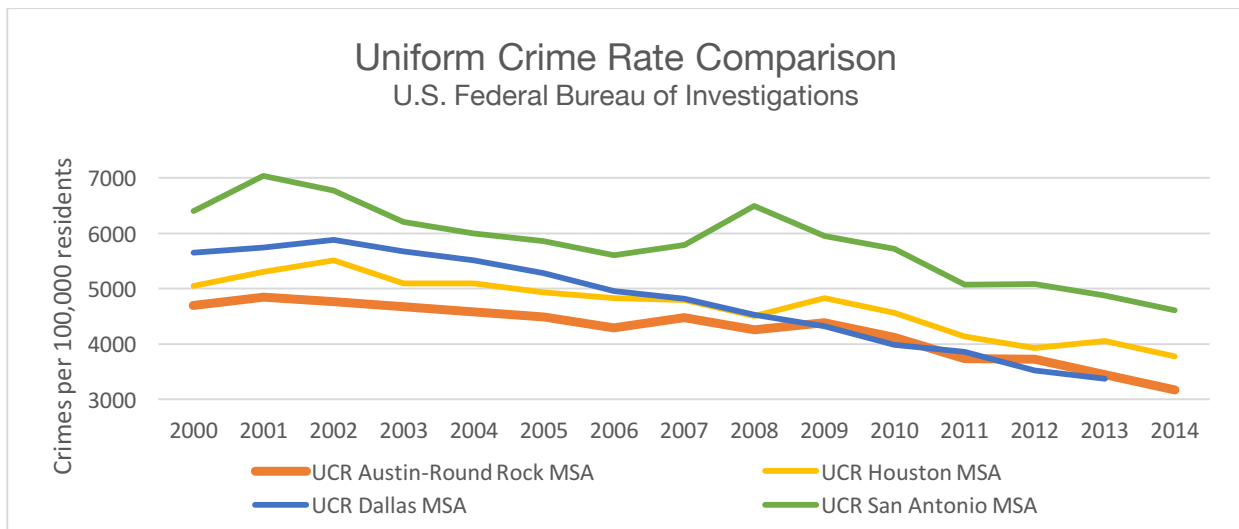
The presence and perception of crime makes people feel unsafe and fearful, often precluding them from full participation in their communities.

Uniform Crime Rate (UCR)

Overall, the Uniform Crime Rate (including both violent and property crimes) has decreased since 2000 throughout the Austin area. Among the six county region, Travis County has the highest rate (including Austin) at 3,931 crimes per 100,000 residents and Williamson County has the lowest rate at 1,508 crimes per 100,000 residents. City of Austin, the urban core of the region, continues to experience higher crime rates than the surrounding areas; however, Austin and Travis County’s UCR has steadily declined since 2009 and is now at an all-time low of 4,500 crimes reported per 100,000 residents, a 28% decrease since 2000.



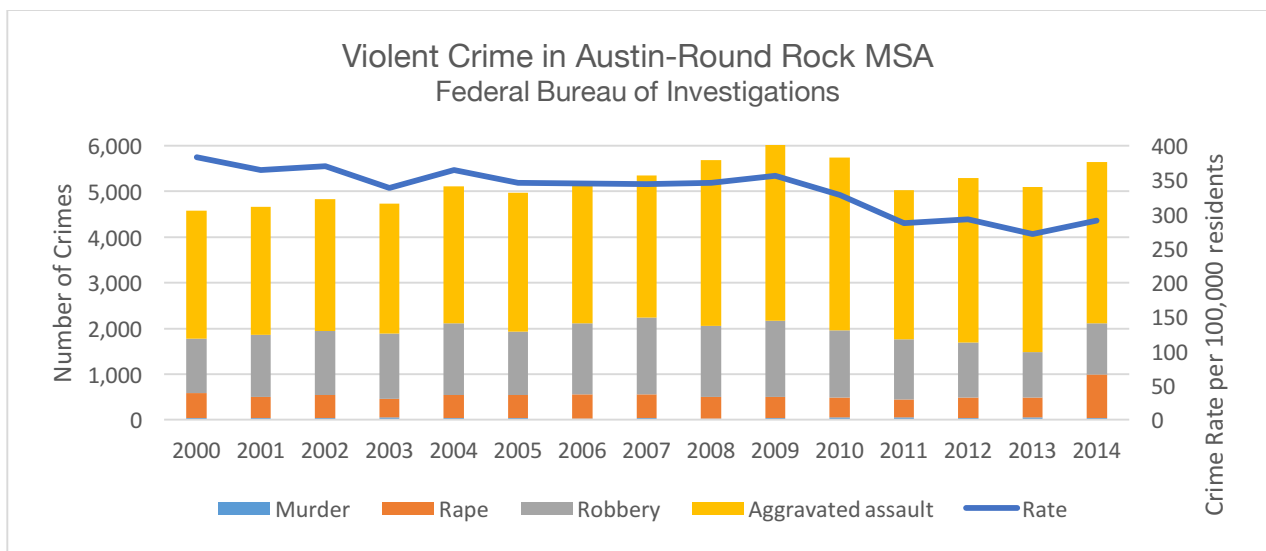
The growing boom in population and the steady decline in incidences of reported crimes has helped Austin-Round Rock MSA claim lower crime rates compared to other major cities in Texas.



Violent Crime

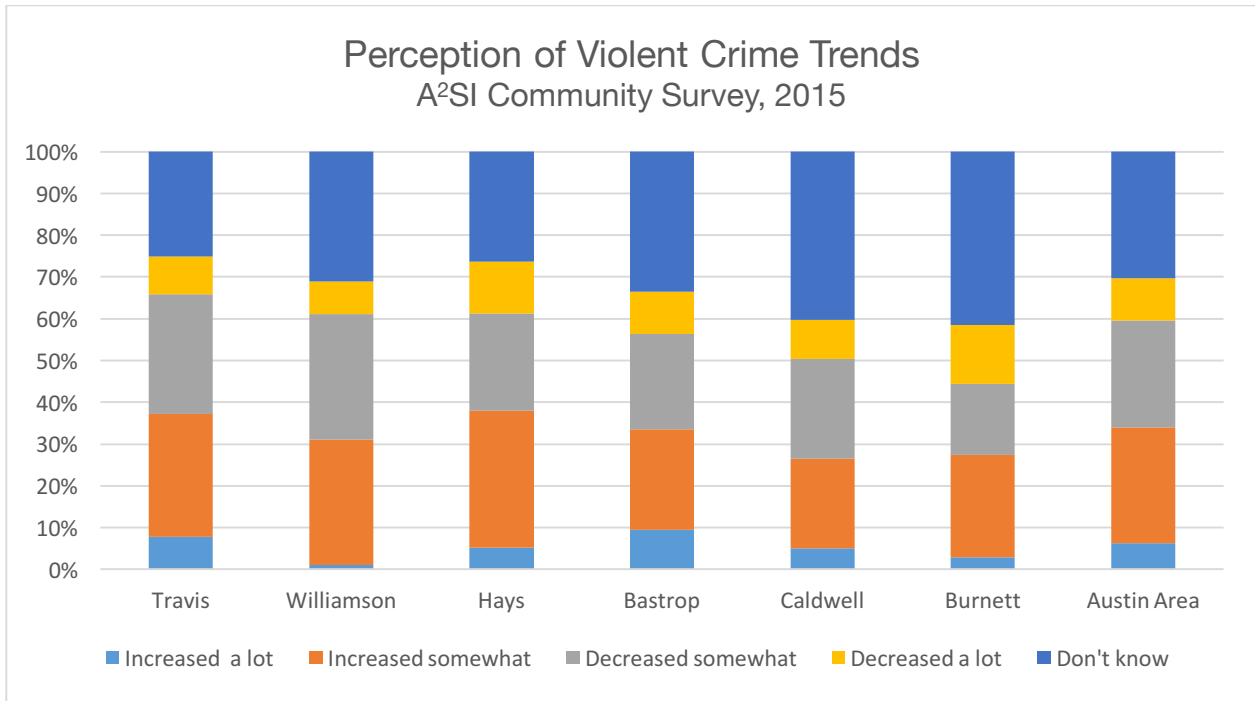
Violent crime rates correlate positively to poverty levels, income inequality, and residential instability. Research suggests that violent crime rates negatively correlate to the probability of arrest, the probability of imprisonment, level of social capital, and collective efficacy. Relative poverty and local segregation of high income households from low income households can exacerbate violent crime. Violent crime in the community is linked to higher levels of depression among a community's older residents.

The number of violent offenses has risen 23% since 2000, from 4,574 crimes to 5,639 crimes reported in 2014. In 2014, Austin-Round Rock MSA saw an increase of violent crimes by 10.5%. In 2014, 62.5% of violent offenses are categorized as aggravated assault, followed by robbery (19.8%), forcible rape (16.8%), and murder (0.8%). Though violent offenses have been on the rise, the rate per 100,000 residents fell steadily from 383.7 in 2000 to 290.9 in 2014.



Perception of Violent Crime

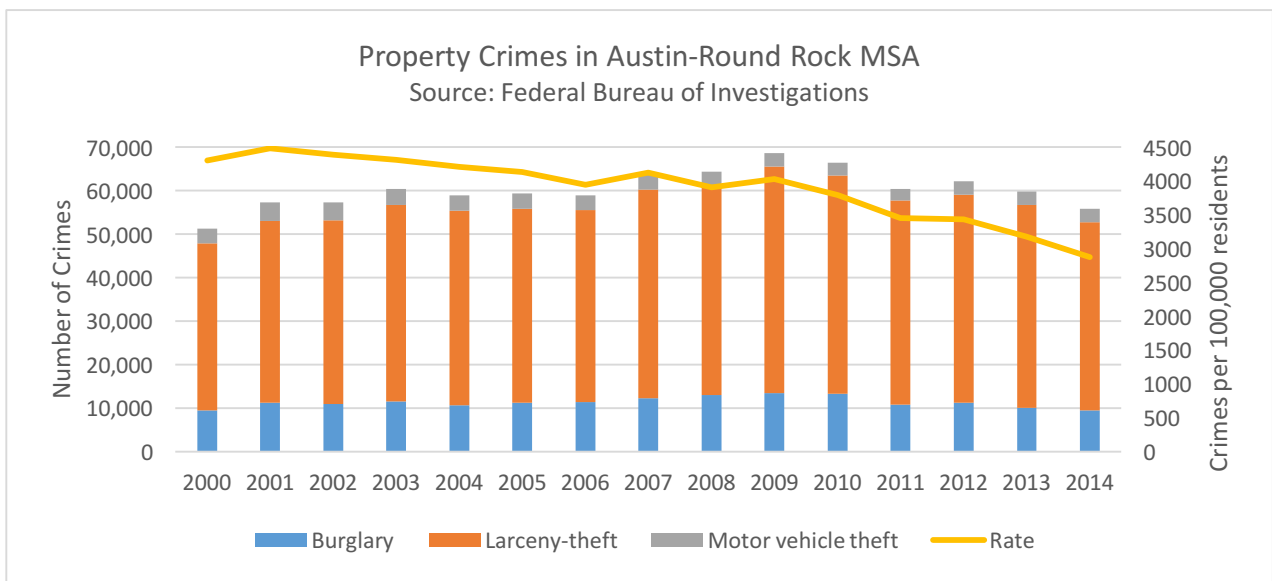
Perhaps more influential than the actual incidence of crime is the perception of crime, the belief that you are not fully safe in your neighborhood. Approximately 34% of Austin region residents perceive that violent crimes are increasing, compared to 35% that perceive they are decreasing. Travis County (37%) and Hays County (38%) have the highest perception of increasing violent crime, remaining statistically the same as in 2012. Generally, more people have an opinion one way or another as compared to 2012, where 40% of survey respondents “didn’t know” or “didn’t have an opinion on violent crime”. In 2015, this number was 30%.



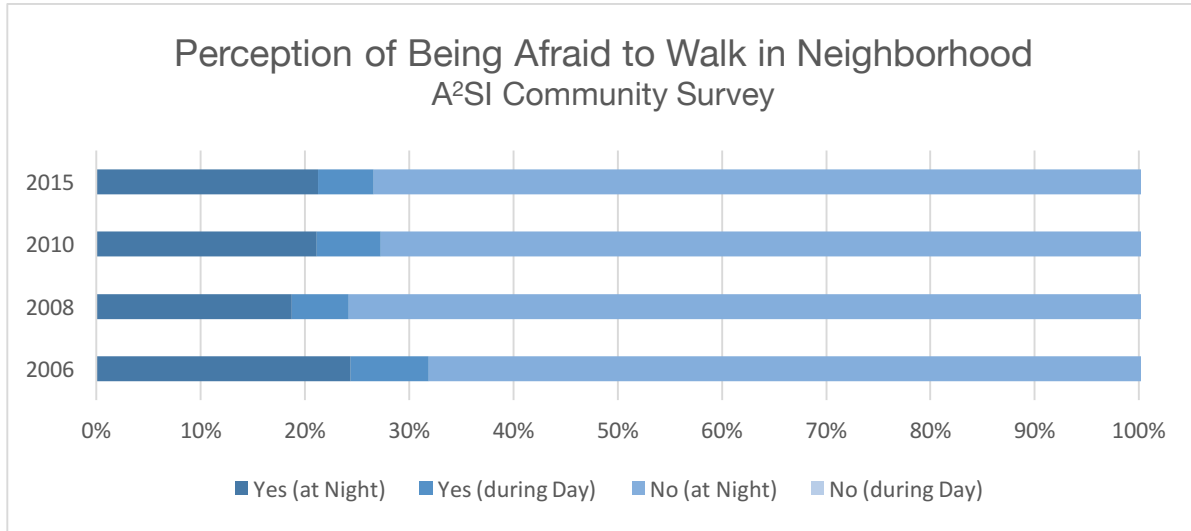
Property Crimes

High property crime rates are associated with high levels of relative disadvantage, high inflation, low wage rates and poor quality of employment opportunities. High GDP, high wages, high property prices, and high percentage of tree canopy cover are correlated with lower property crime rates.

Property crimes are much more common than violent crimes. Since peaking in 2009 with 68,644 crimes reported, property offenses have been in steady decline. In 2014, 55,800 crimes were reported, of which larceny-theft made up 77.4%, followed by burglary (17%) and motor vehicle theft (5.5%). Property crime rates have decreased since 2000, despite the higher number of crimes reported, and reached an all-time low in 2014 with 2,878 crimes per 100,000 residents in the Austin-Round Rock MSA.



Approximately 26% of survey respondents “are afraid to walk in their neighborhood” during either the day or the night, according to the A²SI Community Survey. The percentage of people who report this is consistent with 2010. People at lower levels of household income are much more likely to feel afraid to walk in their neighborhoods.

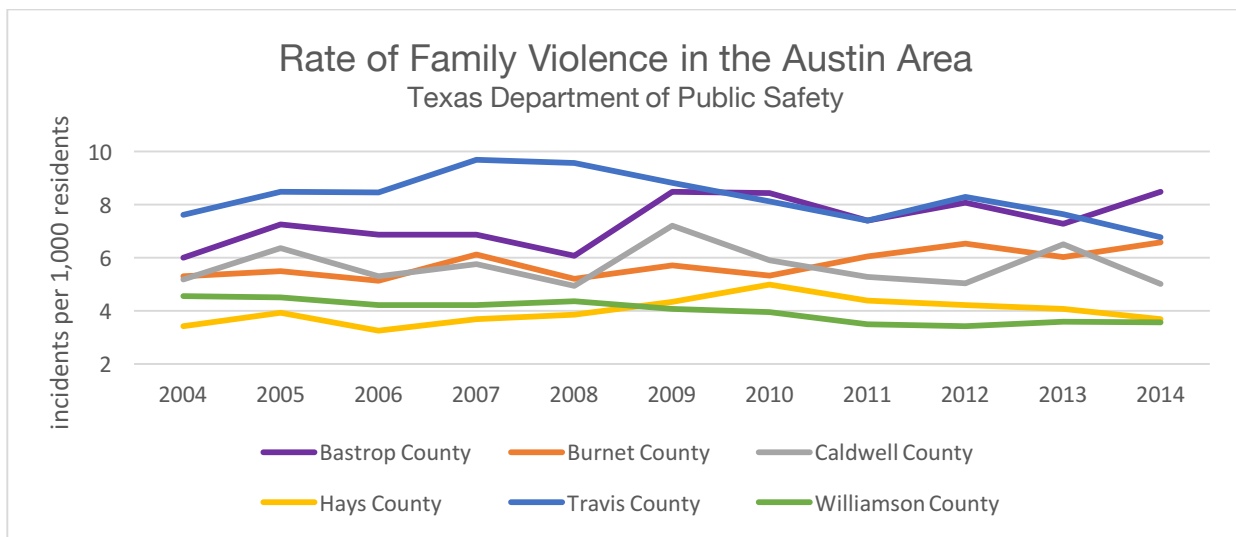


Safe Families

Domestic violence crimes—those typically occurring within what should be the safe harbor of one’s own home and neighborhood—are destructive to the fabric of an individual’s life. Family violence rate has dropped in Travis, but increased in Bastrop and Burnet counties.

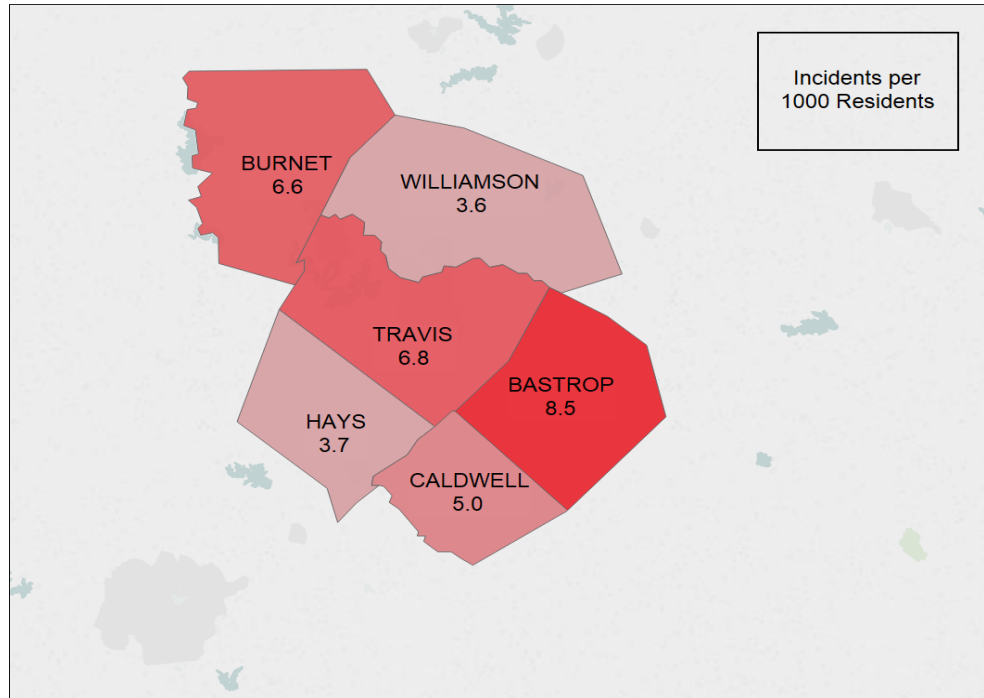
Family Violence

Bastrop County has the highest increase of family violence incidents per 1,000 residents from 2004 to 2014 with a 42% rate increase followed by Burnet County (24%) and Hays County (7%). In the same period, Williamson County had the greatest rate reduction (-22%), followed by Travis County (-11%), and Caldwell County (-4%).



In 2014, Travis County reported an all-time low of 6.8 family violence incidents per 1,000 residents. In the Austin area, this was second behind Bastrop County's reporting of 8.5 family violence incidents per 1000 residents. Williamson County had the lowest rate at 3.6.

Rate of Family Violence in The Austin Area - 2014
Source: Texas Department of Public Safety

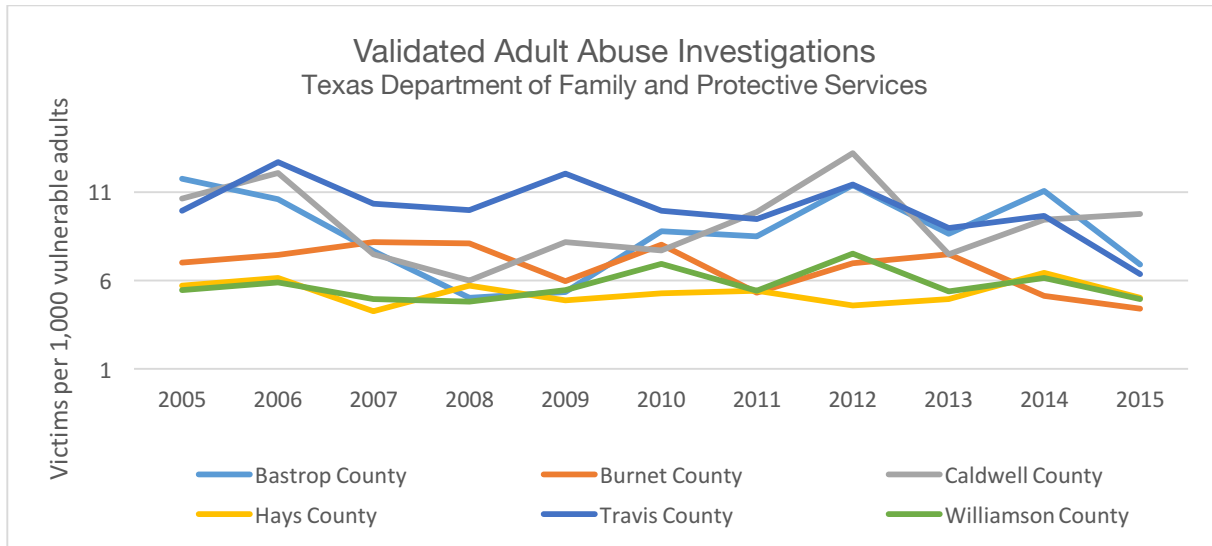


Victims in Family Violence Shelters

State-funded shelter centers provide victims of family violence or teen dating violence with temporary shelter and services. Both adults and children might be victims of family violence. There are two centers providing support to victims of family violence in Austin: 'Safe Place', a residential shelter and 'Saheli', a center providing non-residential services to victims of family violence in the city.

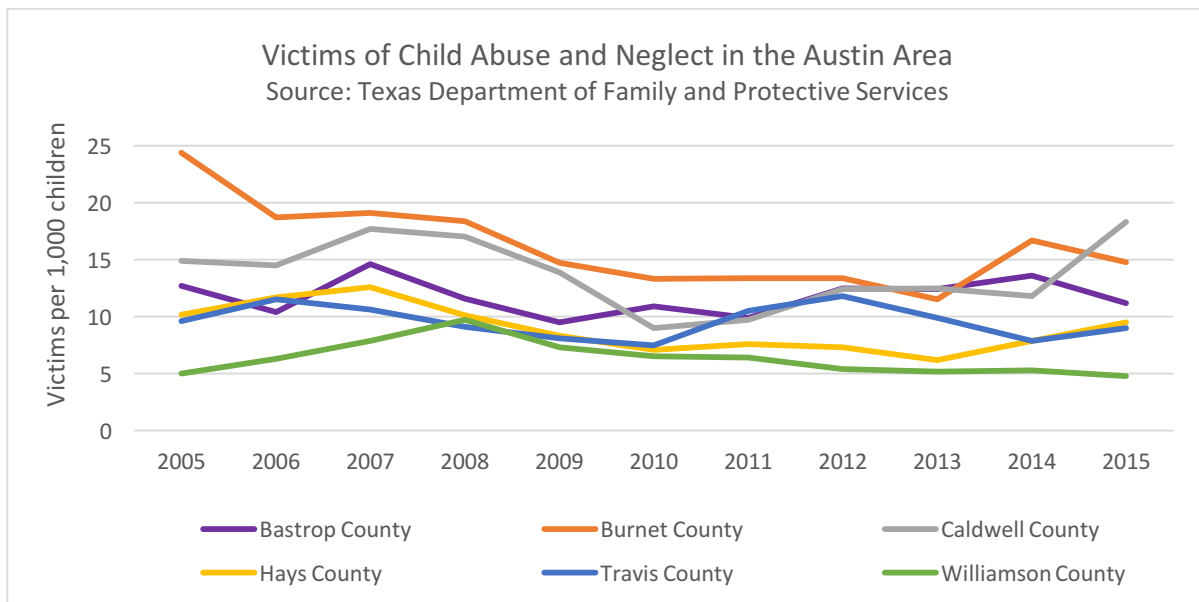
Adult Abuse

Adult abuse refers to complaints related to the care or assistance of adults with disabilities or of seniors over the age of 65 years. All Austin area counties have had fluctuating rates of adult abuse over the past decade. Travis County once held the highest rate of adult abuse (in 2006). However, since 2012 Travis County has experienced a decline in incidents and now is at an all-time low of 7 adults per 1,000 adults considered to be in this vulnerable category. In 2014, Caldwell County had the highest rate of adult abuse (9 out of 1,000 adults), followed by Bastrop (7 out of 1,000 adults). Burnet County had the lowest rate in the region, with 4 out of 1,000 adults reporting abuse.



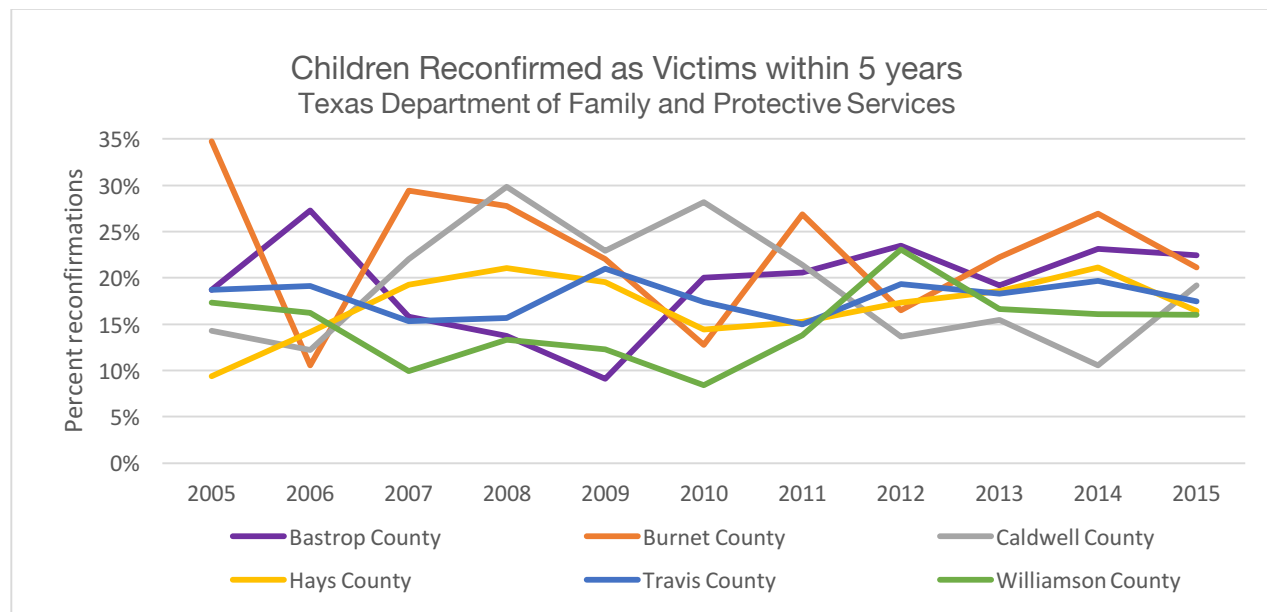
Child Abuse

In 2015, there were 4,217 confirmed victims of child abuse and neglect in the six-county Austin region. The most rural counties - Burnet, Bastrop, and Caldwell - consistently had the highest rates of reported child abuse. Caldwell County's rate of abuse incidents peaked in 2015, at 18 confirmed victims for every 1,000 children. In 2013, Hays County began seeing an uptick in incidents reported in 2013 after enjoying a steady decline that began in 2007. In 2015, Bastrop, Hays, Travis, and Williamson Counties had nearly the same rate of confirmed child abuse cases from a decade ago. Though still having one of the highest rates of child abuse, Burnet County saw a decrease of 19% from 2005.



Perhaps more disturbing than confirming a child abuse victim is having that same child become a victim again. In 2015, 17.7% of children in the Austin area removed from abusive environments in 2010 were reconfirmed as victims, which is nearly the same percentage from a decade ago. Bastrop (22.4%), Burnet (21.2%), and Caldwell (19.2%) counties had the highest percentage of reconfirmed

victims in the region in 2015. All counties, with the exception of Burnet County, had either the same or higher rates of reconfirmed victims from 2005.

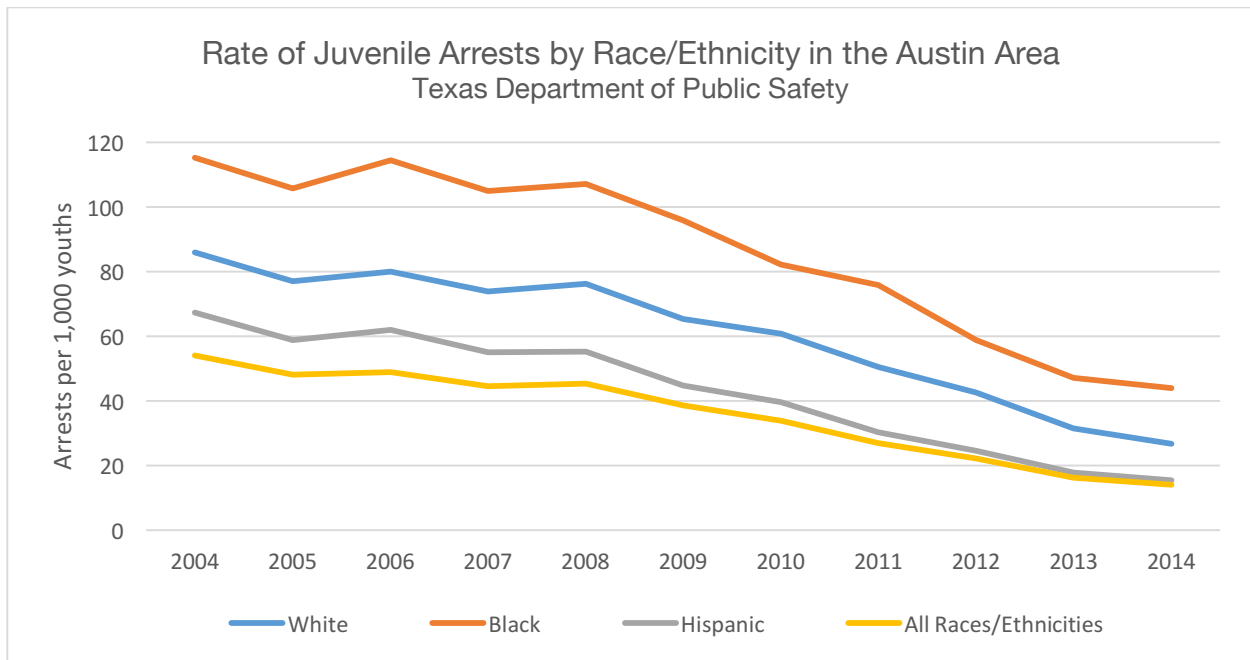


Equity in Law Enforcement

Throughout the country, race and ethnicity are a consistent dimension of public safety activities and discussions. Perceptions of inequitable treatment by law enforcement, even if contrary to data, corrode community cohesion as well as the effectiveness of law enforcement. Pursing equity in the practice and perception of law enforcement is often undermined by single incidents; reducing trends of such incidents is key to broader sustainability for the region.

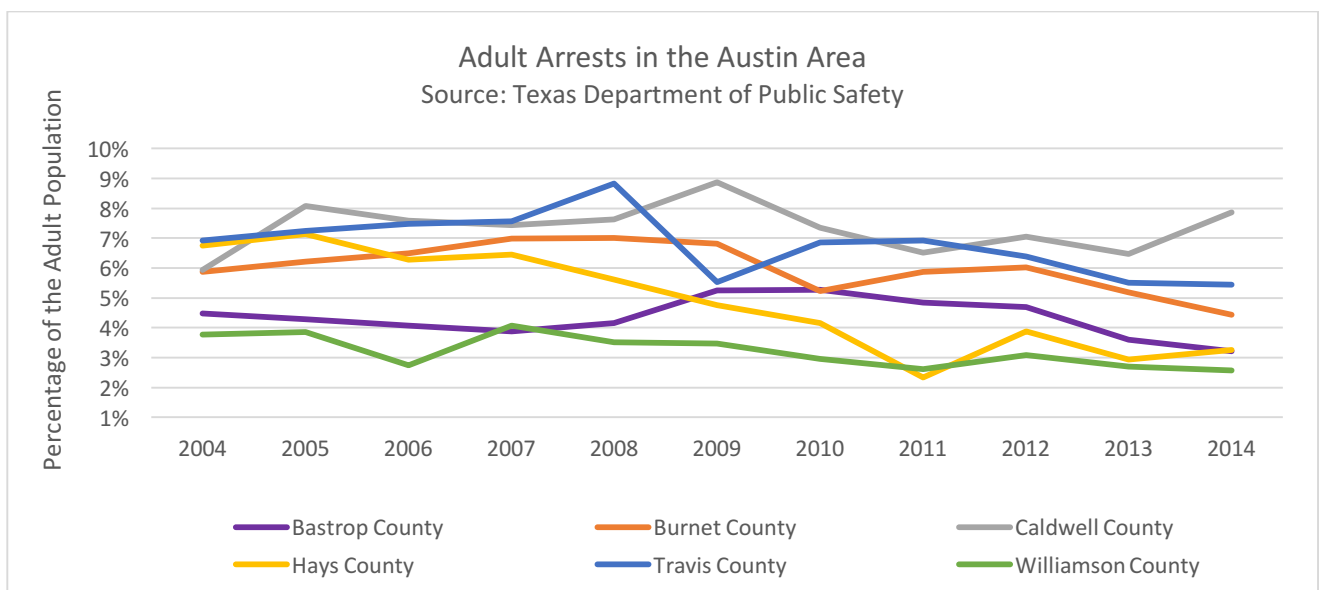
Juvenile Arrests

Since 2008, there has been a steady decline in youth arrests in the Austin area. Black youth have continuously had the highest rates of juvenile arrests, though they make up less than 10% of the youth population under 17 years in the region. In 2014, there were 7,120 juvenile arrests made, or 1.4% of the total juvenile population, a decrease of 4 percentage points from 2004. The drop in juvenile crime rates is likely a result of many combined factors, including the expansion of community-based programs, juvenile drug courts and social service programs as well as changes in sentencing practices. This trend congruent with national and statewide juvenile crime data since the mid-1990s.



Adult Arrests

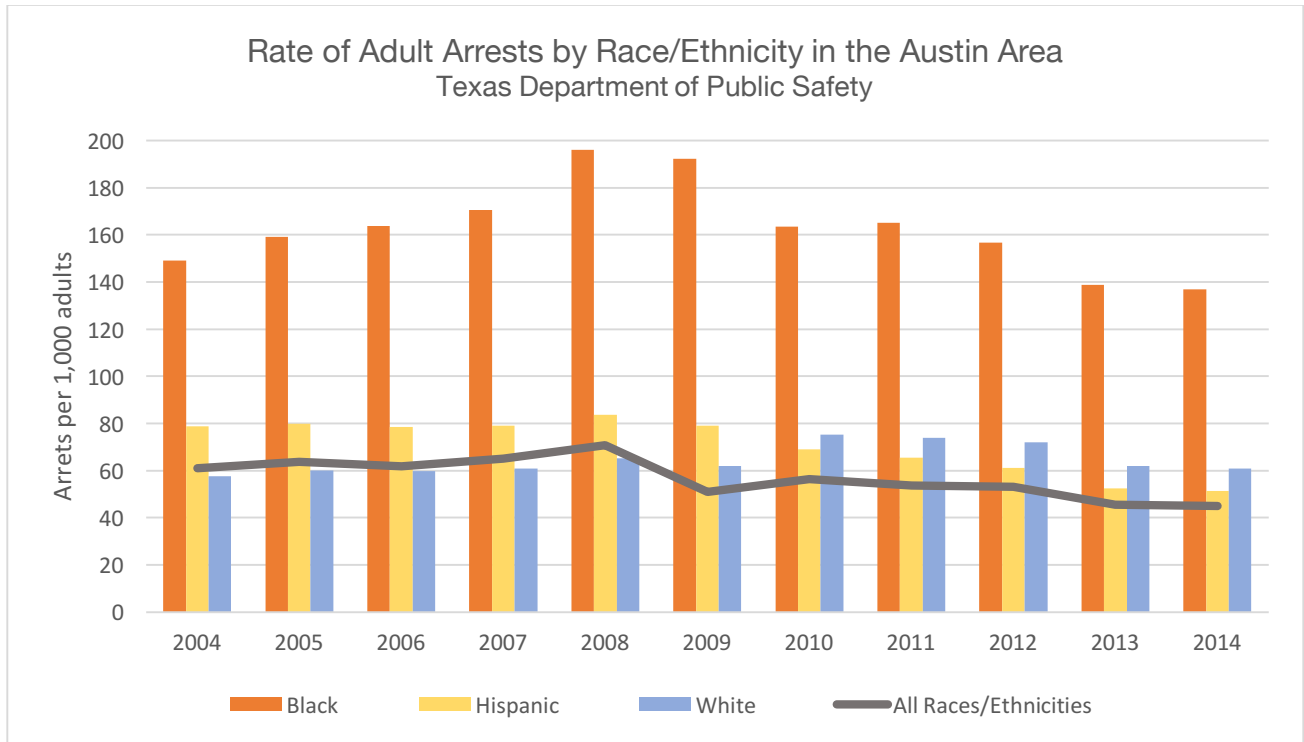
Adult arrests have fluctuated throughout the Austin area since 2004. With the exception of Caldwell County, the percentage of adult arrests have been reduced from a decade ago. The most dramatic reduction of adult arrests from 2004 occurred in Hays County, which hit an all-time low in 2011 with 2.6% of arrests occurring in the adult population. In 2014, Caldwell County had the highest percentage of arrests (7.9%) and Williamson County had the lowest percentage of arrests (2.6%).



Adult Arrests by Race/Ethnicity

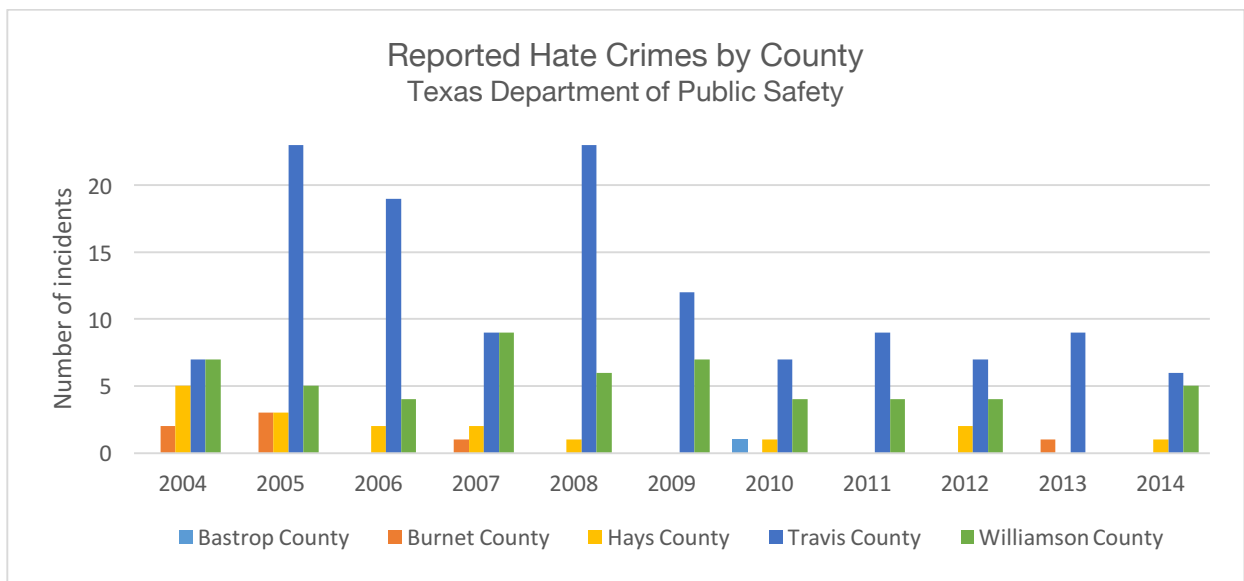
Black adults have traditionally had the highest rate of arrests in the Austin area. This held true in 2014, when Black adults were two times more likely to be arrested than an adult of White or Hispanic origin, though the Black adult population only made up 6.5% of the adult population in the

region. After peaking in 2008 with 70.8 arrests per 1,000 adults, the rate of arrests has dropped and in 2014 hit an all-time low of 44.9 arrests per 1,000 adults in the Austin area.



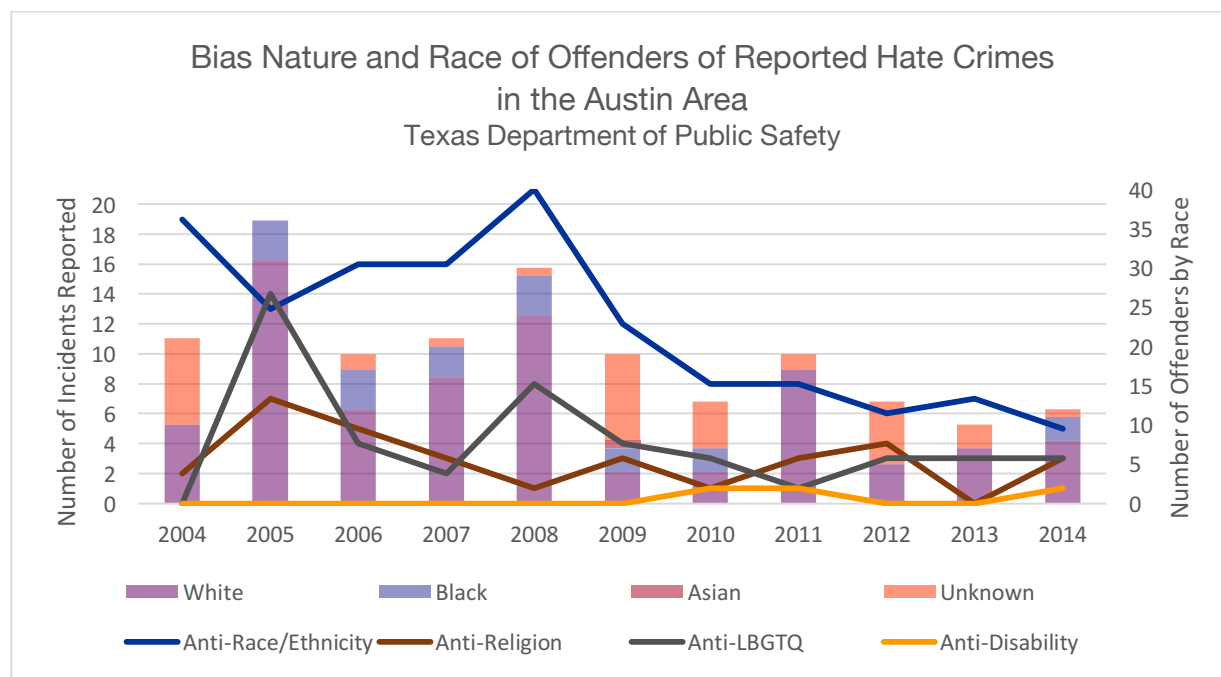
Hate Crimes

The majority of hate crimes from 2004 to 2014 occurred in Travis County, followed by Williamson County and Hays County. No hate crimes were reported in this same period in Caldwell County and only one was reported in Bastrop County. The number of hate crimes reported peaked in 2005 with 34 across Travis, Williamson, Hays, and Burnet Counties. In 2014, six hate crimes were reported in Travis County, five in Williamson County, and 1 in Hays County.



Nature of Hate Crimes

Sixty-two percent of all hate crimes that occurred between 2004 and 2014 were motivated by racial prejudice, of which 55% were targeted towards someone of Black or African-American descent, followed by Hispanic (19%), White (8%), Multi-Race or Other (8%), Arab (5%), and Asian (5%). Approximately one-fifth (21%) of all hate crimes targeted people of the LGBTQ community. Fifteen percent were anti-religion in nature, of which 17 out of the 32 reported incidents (53%) were targeted towards people of the Jewish faith, followed by people of multiple religions (25%), Muslims (13%), and Catholics (9%). The majority of hate crimes were committed by individuals of White racial background. It is important to note that the Texas Department of Public Safety does not distinguish if offenders are of Hispanic ethnicity in their data.

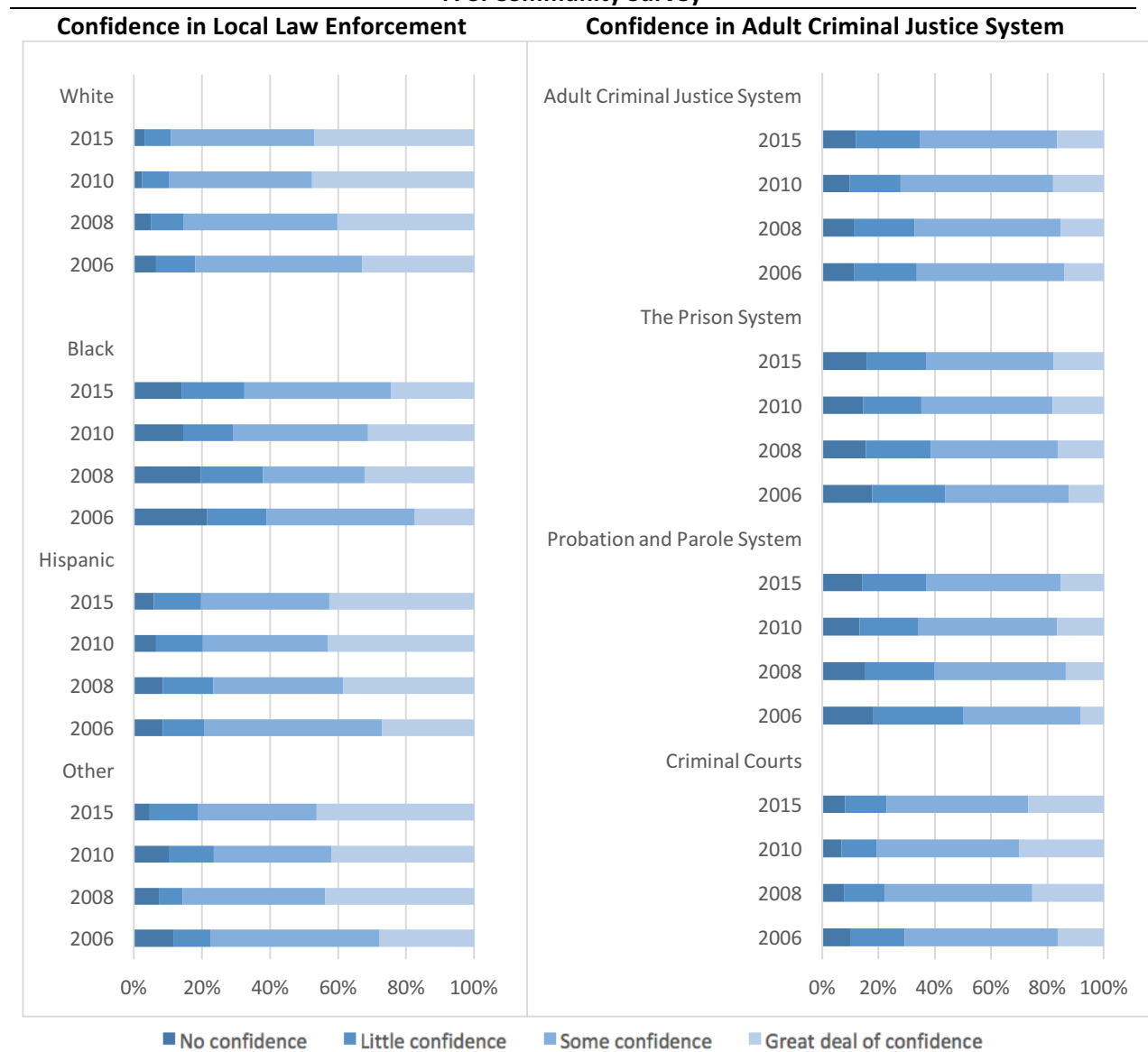


Perception of Equity in Law Enforcement

In 2015, approximately 85% of all residents had “some” or “a great deal” of confidence in local law enforcement. This is consistent with the 2010 survey. However, 32% of African Americans had “little” or “no” confidence in local law enforcement. This number has increased from 28% in 2010, but is better than the rate of 40% in 2008. White and Hispanic confidence in local law enforcement is unchanged from 2010.

In general, confidence in the adult criminal justice system improved between 2006 and 2010; however, the 2015 A²SI Community Survey shows more respondents (35%) with “no” or “little” confidence in the system than in 2010 (28%). This trend holds for both the “probation and parole system” and the “criminal courts”. Confidence in the “prison system” remained consistent compared to 2010, with approximately 63% of respondents having “some confidence” or “a great deal of confidence” in the system. When considering the entire system, the criminal courts has the highest rate of confidence with 27% of respondents having “great confidence” in 2015.

A²SI Community Survey



Summary and Conclusion

Crime and the fear of crime impose costs on residents and the sustainability of a region. Conversely, public safety has a positive value to residents and sustainability efforts. Indicators of public safety provide benchmarks against which to measure performance of city agencies, non-profits, and philanthropic efforts to reduce crime and enhance feelings of safety within neighborhoods. Reducing the disparities found across geography, by income levels, and across race/ethnicity categories is key for a sustainable Austin area.

Appendix A: Glossary

Adult Abuse – Adult Protective Services investigates abuse, neglect, and exploitation of adults who are elderly or have disabilities. Any adult who has a disability or who is age 65 or older that is in a state of abuse, neglect, or exploitation may be eligible to receive adult protective services.

Child Abuse/Neglect – Texas Department of Family and Protective Services categorizes child abuse under 5 different types: physical abuse, sexual abuse, emotional abuse, labor trafficking, and sex trafficking. Child Neglect constitutes neglectful supervision, medical neglect, physical neglect, abandonment and refusal to accept parental responsibility, and failing to protect a child from any situation that may result in abuse or neglect.

Family Violence – The Texas Family Code defines Family Violence as an act by a member of a family or household against another member that is intended to result in physical harm, bodily injury, assault, or a threat that reasonably places the member in fear of imminent physical harm.

Hate Crime - the FBI has *defined a hate crime* as a “*criminal offense against a person or property motivated in whole or in part by an offender's bias against a race, religion, disability, sexual orientation, ethnicity, gender, or gender identity.*”

Juvenile – A juvenile according to Texas Attorney General’s Juvenile Justice Handbook (2016) is “10 years or older and under 17; or 17 years or older and under 18, who is alleged or found to have engaged in delinquent conduct or conduct indicating a need for supervision as a result of acts committed before turning 17. This means that a juvenile court typically loses its jurisdiction, or authority, to handle any juvenile case when a person turns 18”.

Property Crime – property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. The object of the theft-type offenses is the taking of money or property, but there is no force or threat of force against the victims.

Violent Crime – violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Violent crimes are defined in the UCR Program as those offenses which involve force or threat of force.

Uniform Crime Rate – The Uniform Crime Reporting program collects statistics on the offenses known to law enforcement—specifically violent and property crime.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Public Safety	Uniform Crime Rates	Uniform Crime Rates in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Crime in Texas Reports, Retrieved December 14, 2015, from https://www.txdps.state.tx.us/administration/crime_records/pages/crimestatistics.htm
Public Safety	Uniform Crime Rates	Uniform Crime Rate Comparison	U.S. Federal Bureau of Investigation	U.S. Federal Bureau of Investigations, Uniform Crime Rate Publications. Table 6: Metropolitan Statistical Area. Retrieved April 18, 2016, from https://www.fbi.gov/about-us/cjis/ucr/ucr-publications
Public Safety	Uniform Crime Rates	Violent Crime in Austin-Round Rock MSA	U.S. Federal Bureau of Investigation	U.S. Federal Bureau of Investigations, Uniform Crime Rate Publications. Table 6: Metropolitan Statistical Area. Retrieved April 18, 2016, from https://www.fbi.gov/about-us/cjis/ucr/ucr-publications
Public Safety	Uniform Crime Rates	Property Crime in Austin-Round Rock MSA	U.S. Federal Bureau of Investigation	U.S. Federal Bureau of Investigations, Uniform Crime Rate Publications. Table 6: Metropolitan Statistical Area. Retrieved April 18, 2016, from https://www.fbi.gov/about-us/cjis/ucr/ucr-publications
Public Safety	Safe Families	Rate of Family Violence in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Crime in Texas Reports, Retrieved December 14, 2015, from https://www.txdps.state.tx.us/administration/crime_records/pages/crimestatistics.htm
Public Safety	Safe Families	Validated Adult Abuse Investigations	Texas Department of Family and Protective Services	Texas Department of Family Protective Services, 2014 Annual Report and Data Book Excel. Retrieved December 14, 2015, from https://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/2014/county_charts_excel.asp
Public Safety	Safe Families	Victims of Child Abuse and Neglect in The Austin Area	Texas Department of Family and Protective Services	Texas Department of Family and Protective Services, Data Book County Charts, Confirmed CPS Victims and Investigations, Retrieved December 14, 2015 from: https://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/
Public Safety	Safe Families	Children Reconfirmed as Victims within 5 Years	Texas Department of Family and Protective Services	Texas Department of Family and Protective Services, Data Book County Charts, 5 Year Outcome for Children Returned Home from Substitute Care or Served in FBSS, Retrieved April 19, 2016 from: https://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/

Public Safety	Equity in Law Enforcement	Rate of Juvenile Arrests by Race/Ethnicity in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Uniform Crime Reporting, Retrieved March 1, 2016 from: Charles Stubbard, Statistician of the TXDPS.
Public Safety	Equity in Law Enforcement	Adult Arrests in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Uniform Crime Reporting, Retrieved March 1, 2016 from: Charles Stubbard, Statistician of the TXDPS.
Public Safety	Equity in Law Enforcement	Rate of Adult Arrests by Race/Ethnicity in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Uniform Crime Reporting, Retrieved March 1, 2016 from: Charles Stubbard, Statistician of the TXDPS.
Public Safety	Equity in Law Enforcement	Reported Hate Crimes by County	Texas Department of Public Safety	Texas Department of Public Safety, The Texas Crime Reports, Chapter 6:Hate Crimes, retrieved 22 April 2016 from https://www.txdps.state.tx.us/administration/crime_records/pages/crimestatistics.htm
Public Safety	Equity in Law Enforcement	Bias Nature and Race of Offenders of Reported Hate Crimes in The Austin Area	Texas Department of Public Safety	Texas Department of Public Safety, Uniform Crime Reporting, Retrieved April 25, 2016 from: Charles Stubbard, Statistician of the TXDPS.

Austin Area Sustainability Indicators (2016) - Education and Children

Contents

Austin Area Sustainability Indicators (2016) - Education and Children	1
Education and Children	3
Child Care Access	3
Enrollment in Child Care or Pre-K	3
Subsidized Child Care	4
Public Pre-K	4
Cost of Child Care	5
Child Care: Quality	5
Kindergarten Readiness	6
Child Care Facilities	6
Accredited Child Care Facilities	6
Wages for Child Care Workers	8
Schools: Quality	9
Exemplary Campuses by County	9
On – Campus Disciplinary Incidents	11
School – Performance	12
Graduation Rates and Drop Out Rates by County over Time	12
Academic Performance in Standardized Tests – All Students	14
Post-Secondary Readiness – All Students	14
Schools – Equity	17
Equity in Quality	17
Map of Campus Distinctions and Disciplinary Incidents and Economically Disadvantaged Students	17
Quality of Education to Bilingual Students	18
Graduation Rates – Equity	19
Drop – Out Rates – Equity	19
Academic Performance by Ethnicity and Income Level – English / Reading	20
Academic Performance by Ethnicity and Income Level – Mathematics	21
Higher Education	21
Access	21

Performance 22

Higher Education – Equity 23

Summary and Conclusion..... 24

Appendix A: Glossary 25

Appendix B: Bibliography 28

Education and Children

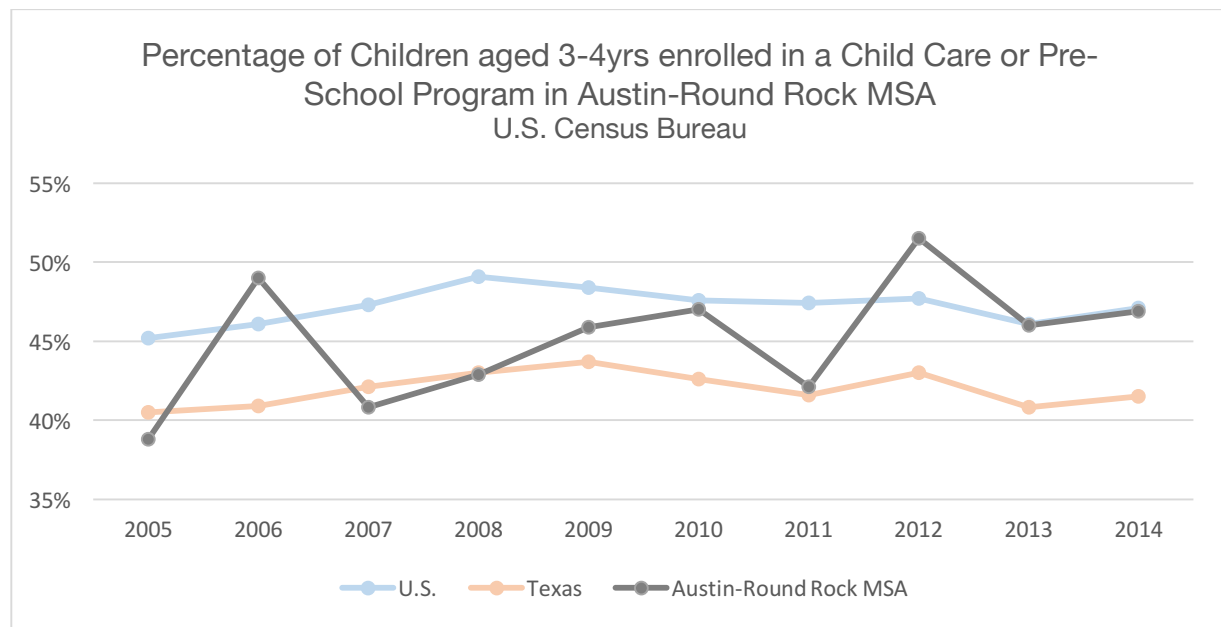
Education is a key driver of sustainability, both for individuals and for regions. Individuals benefit from education in a variety of ways, including higher productivity, higher wages, better health outcomes, and less need for publicly funded economic assistance. In addition, research has shown that 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 indicators are closely linked to child-related indicators.

Child Care Access

Many families desire or need to access child care outside of the home, but are limited by the cost of care or cannot find an arrangement that aligns with their work or life demands. As public sector budgets continue to shrink for support services and public school programs, and as the cost of unsubsidized care continues to rise, the pressure to equitably support all of the children of the Austin area will continue to increase.

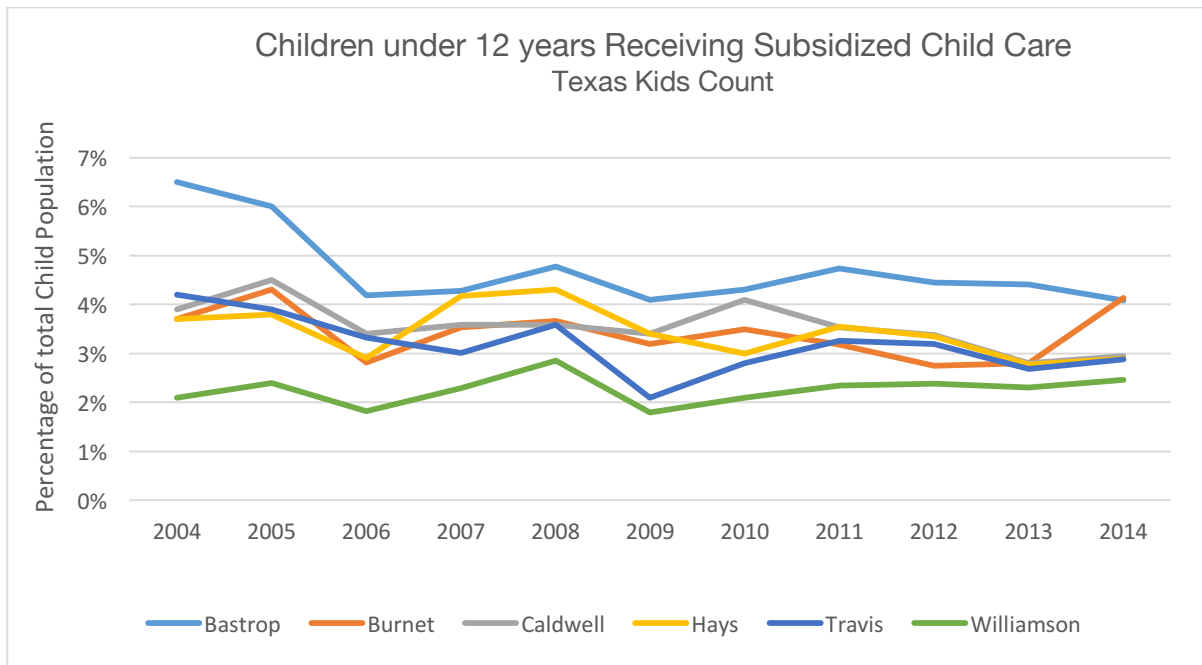
Enrollment in Child Care or Pre-K

Early childhood education is an important factor for school readiness. Measuring the proportion of children who are enrolled in a child care or preschool program reveals the degree to which children are participating in early childhood education. Though Texas and the United States have stayed relatively flat over the years, Austin-Round Rock MSA has seen some improvement. As of 2014, 47% of all children ages 3 and 4 years were enrolled in a child care or pre-school program, a 9% increase from 2005.



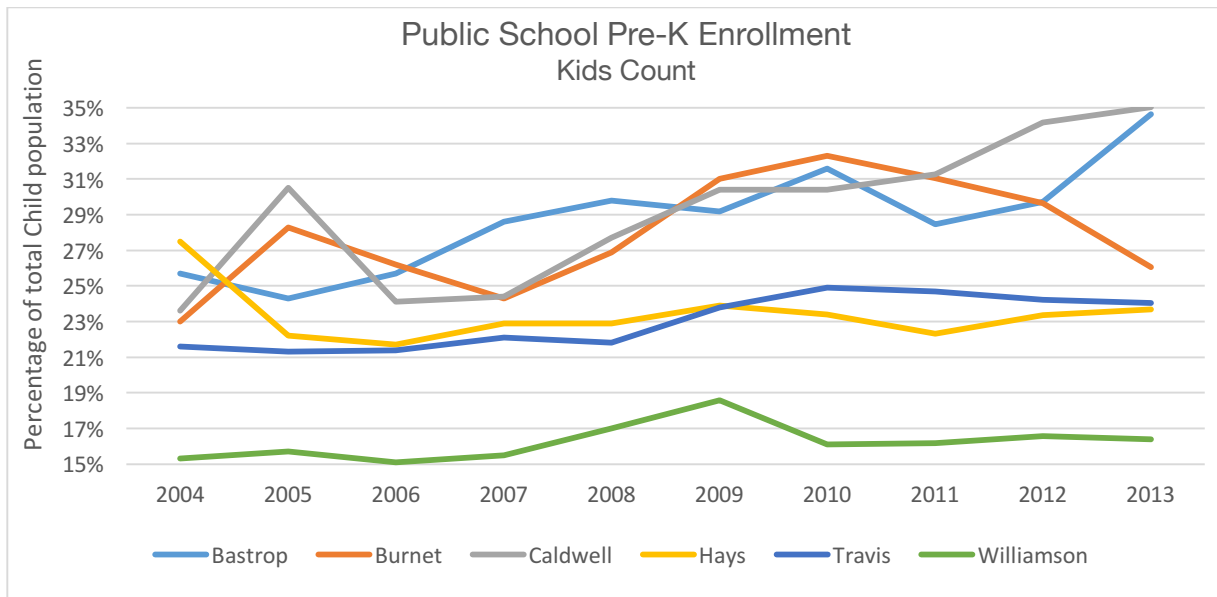
Subsidized Child Care

The Texas Workforce Commission provides child care assistance to parents that work, attend school, or participate in job training. Comparing rates from 2004, most counties in the Austin area have experienced a decrease of children under 12 years receiving subsidized child care, with the exception of Williamson (+0.5%) and Burnet (+0.4%) counties. Bastrop County saw the most dramatic decrease in the percentage of children under 12 receiving subsidized child care, from 6.5% in 2004 to 4.1% in 2014.



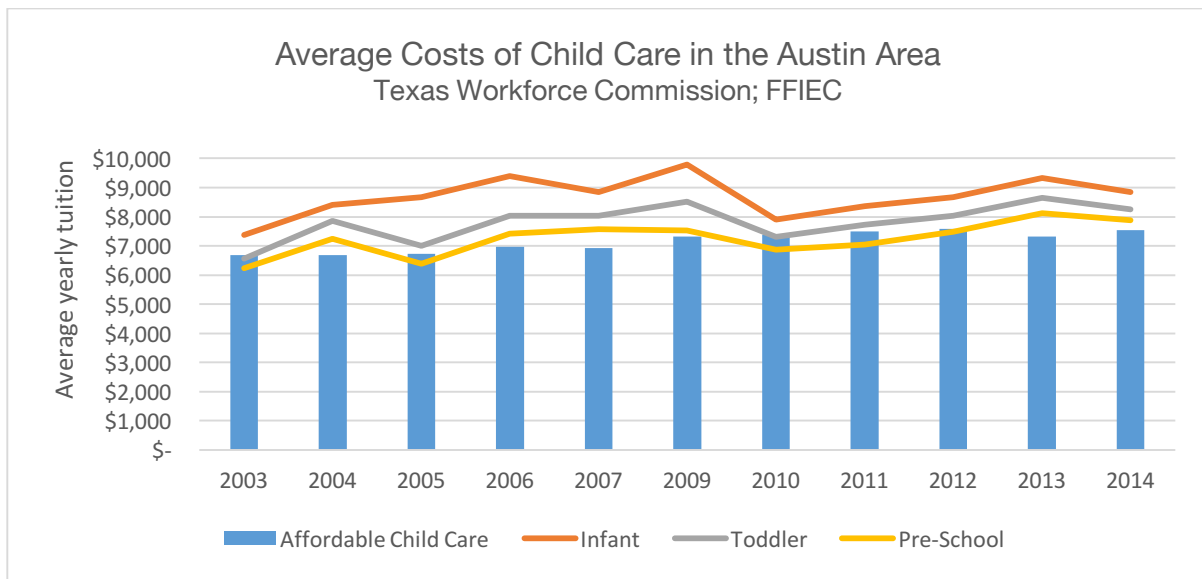
Public Pre-K

This decrease may be due to the rising popularity of Public Pre-Kindergarten for 3 and 4 year old children. Public Pre-K is limited to children who are low-income, homeless, in foster care, have limited English proficiency, or children of active duty military members who were injured or killed while serving on active duty.



Cost of Child Care

Child care is a substantial expense for families. The Department of Health and Human Services benchmarks affordable child care at no more than 10% of a family’s median income, or \$7,540 in 2014 for the Austin area. However, yearly tuition for infants, toddlers, and pre-school aged children was above the affordable threshold. The average yearly tuition for one child in a full-time licensed child care center is well out of reach for many families.



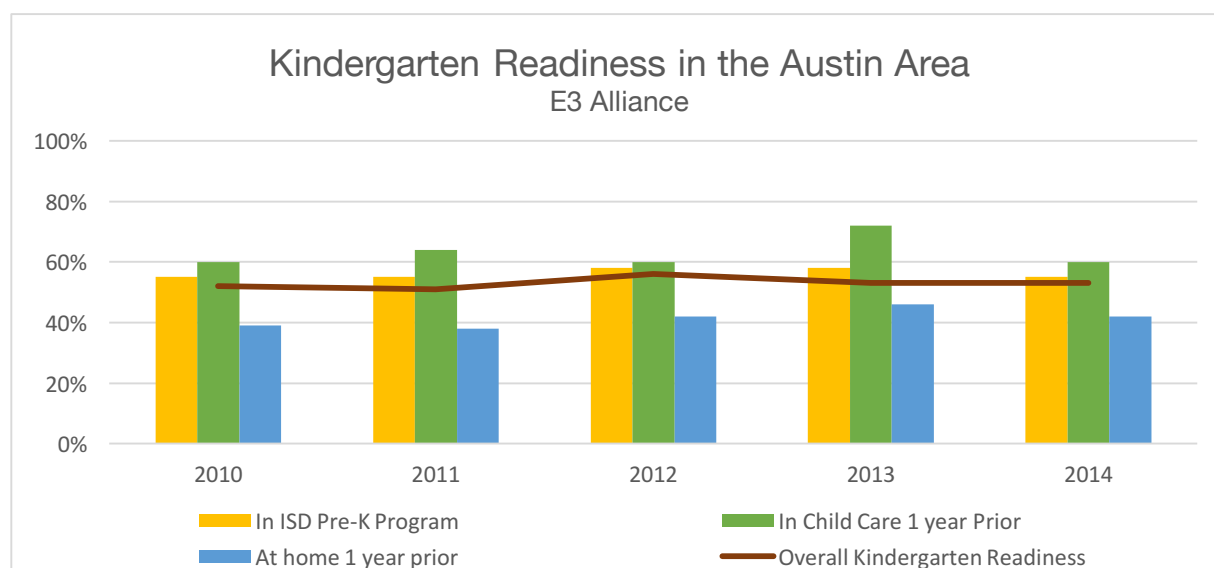
Child Care: Quality

Research continues to show the importance of the first years of life on a person’s lifelong physical, mental and social development. Many families utilize out-of-home child care, either by choice or

necessity, and are challenged to find a high quality provider that is affordable, accessible, and aligned with their needs.

Kindergarten Readiness

According to a study published by E3 Alliance, around 50% of all Austin area children enter kindergarten school ready to succeed, a rate that has been consistent over time. The children that are more likely to be kindergarten school ready attended child care the year prior (60%) as compared to those that attended an ISD Pre-K (55%) or stayed at home (42%) the year prior.



Child Care Facilities

Austin-Round Rock MSA has more than 1,700 public and private child care facilities ranging from large group centers serving over 300 children to small family providers with just two or three seats available. However, only about half of all child care facilities are licensed, and only 105 (6%) of all child care facilities are accredited. The child population 6 years and under with all available parents in the labor force has consistently surpassed the available capacity of child care facilities.

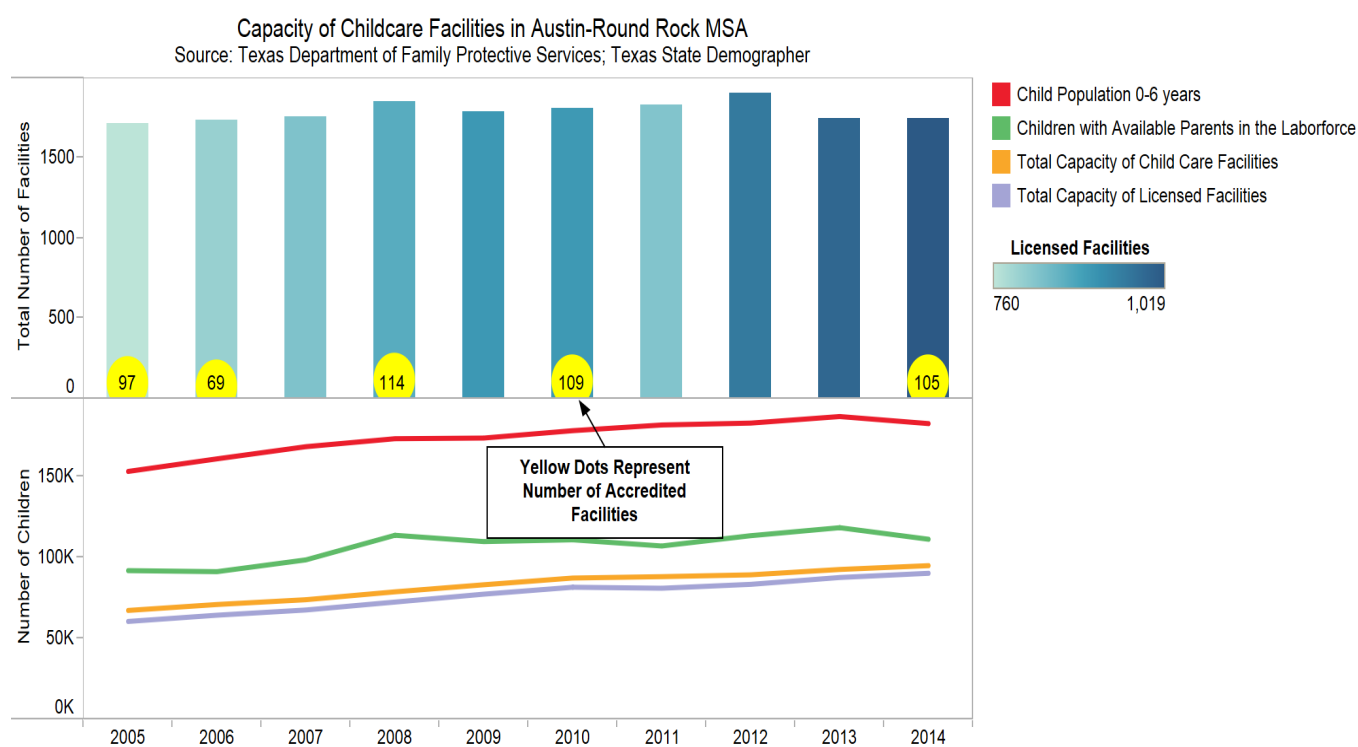
Accredited Child Care Facilities

Though access to child care and early education facilities is important, according to E3 Alliance quality of child care and early education facilities is correlated to better school readiness and performance. Accreditation comes from one of four rating systems in Texas: National Association for the Education of Young Children, Texas Rising Star, National Association of Family Child Care, and Texas School Ready. Of the 1,763 child care facilities registered in the Austin area in 2014, only 1,038 are licensed. Burnet County had 0 child care facilities in 2014 that were accredited. Accreditation ensures that child care centers meet quality standards for curriculum facilities, nutrition, staffing, administration, teaching practices and relationship among teachers and parents. Based on a population of 96,182 children ages birth to 6 years who have parents in the labor force in the Austin area, this translates to a ratio of one accredited site per 916 children needing care.

Table 1. 2014 Snapshot of Quality of Child Care Facilities in the Austin Area

	<i>Child Population birth-6 years with all available parents in the workforce</i>	<i>Total Child Care Facilities</i>	<i>Total Licensed Facilities</i>	<i>Total Accredited Facilities</i>	<i>Capacity at Accredited Facilities</i>
<i>Bastrop County</i>	2907	59	37	1	12
<i>Burnet County</i>	1557	25	19	0	0
<i>Caldwell County</i>	1681	23	15	1	82
<i>Hays County</i>	8053	157	93	6	656
<i>Travis County</i>	55747	917	562	75	8977
<i>Williamson County</i>	2637	587	312	22	3042

Source: U.S. Census Bureau ACS 2014 5yr estimate; Texas Department of Family and Protective Services

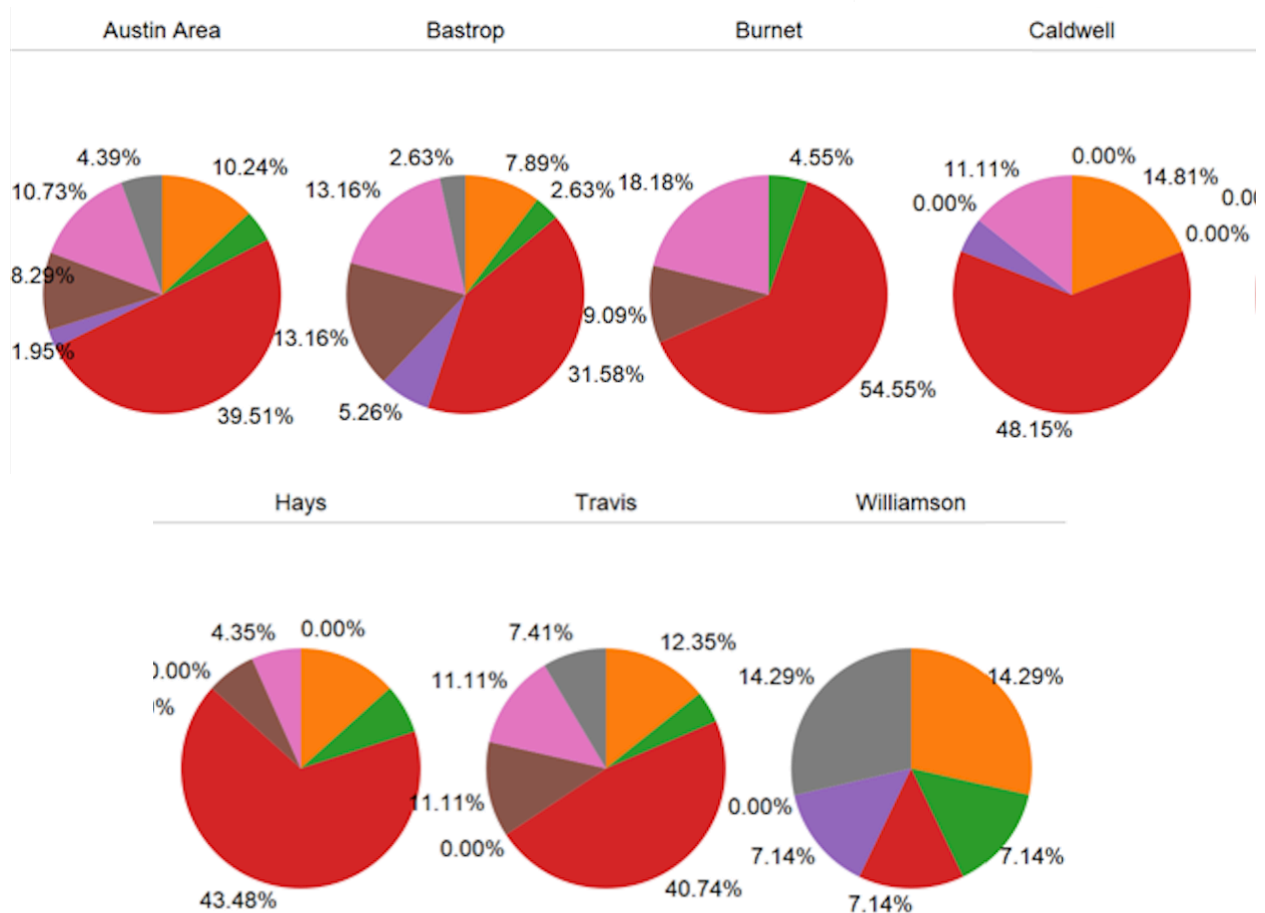


This lack of accredited child-care centers restricts options that parents have. In the 2015 A²SI Community Survey no respondents reported using a child-care center in Burnet County. Over 50% of the respondents reported using family relatives. The reported use of child-care centers has increased since 2010 from 7.2% to 10.24% in 2015. From 2006 to 2010, the use of childcare centers decreased, which represents a reversal in trend. Across the Austin area approximately 40% of those surveyed report leaving children in the care of relatives.

A²SI Community Survey 2015

Who's Taking Care of Children

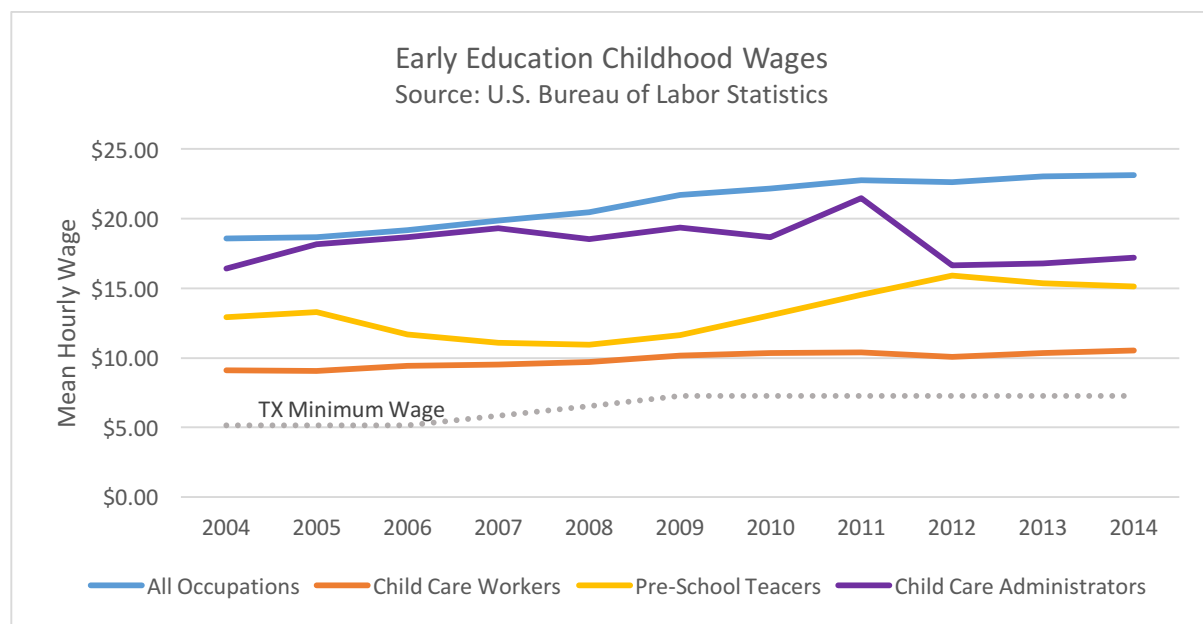
- Child-care center
- Family day care provider
- Family or relative
- Neighbor
- Other
- Partner / spouse
- Pre-school



Wages for Child Care Workers

Labor is one the cost drivers for child care. Wages highlight the challenges of maintaining affordable prices for care and retaining child care staff. The typical wages of child care workers, preschool teachers, and child care administrators are significantly lower than the overall wage rate for the region. It is hard to imagine cutting costs from child care labor in order to reduce costs to parents. Child care workers have stayed relatively flat at around \$10.00 an hour since 2004, whereas Pre-

School Teachers have seen a wage increase to \$15.00 an hour (pre-K teachers are usually credentialed and have degrees, whereas child care workers are not; regardless, early education wages for all categories are on average lower than the mean for “all occupations”).



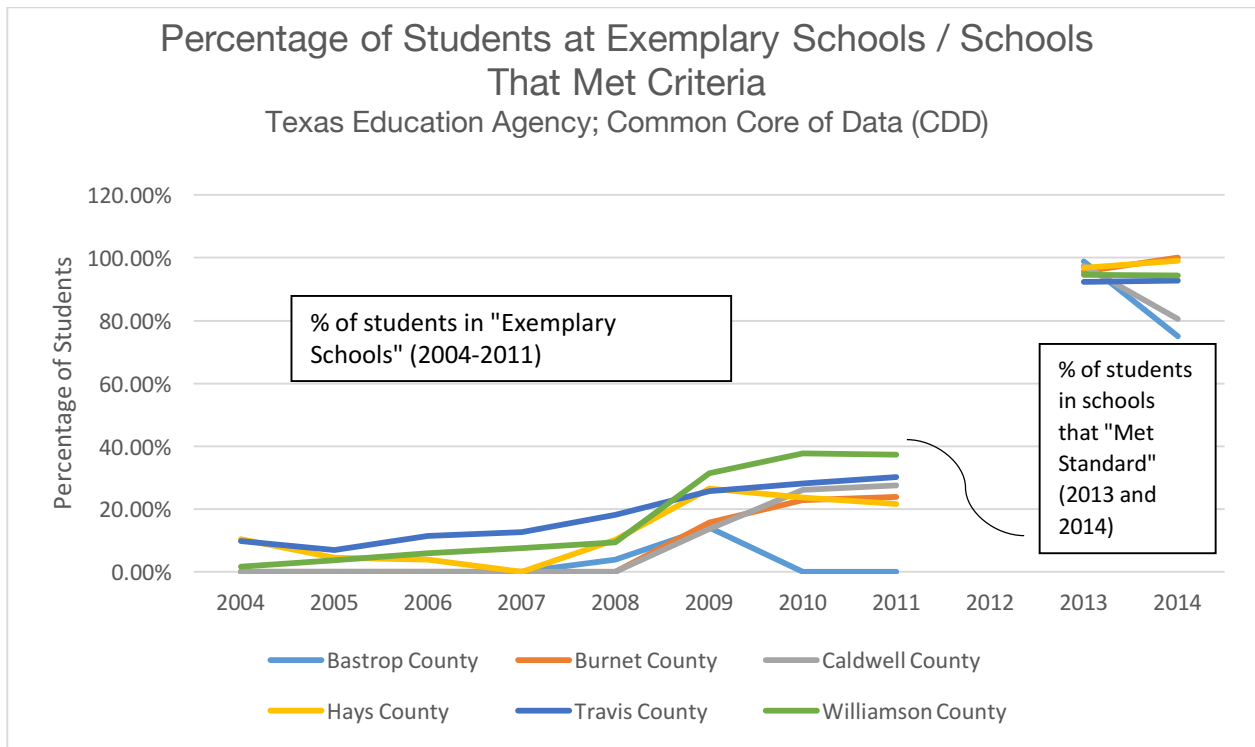
Schools: Quality

Our public education system is a necessary gateway for almost all children in our region to prepare themselves for success in life. Ensuring that system provides a safe, quality education to all kids enrolled, and a consistent and equitable assessment of what they learn, is a basic obligation of an engaged community.

Exemplary Campuses by County

The Texas Education Agency introduced a new accountability rating system in 2013. From 2004 to 2011, schools were categorized Exemplary, Recognized, and Academically Acceptable based on standard metrics: student performance on TAKS, progress measure of English Language Learners, completion rate, and annual drop-out rate. From 2013 to date, a new rating system was introduced which categorizes public schools into Met Standard and Improvement Required. The schools that meet standards are then assigned distinctions, based on different performance indicators: academic achievement of students, diminishing performance gap across students, and students’ postsecondary readiness.

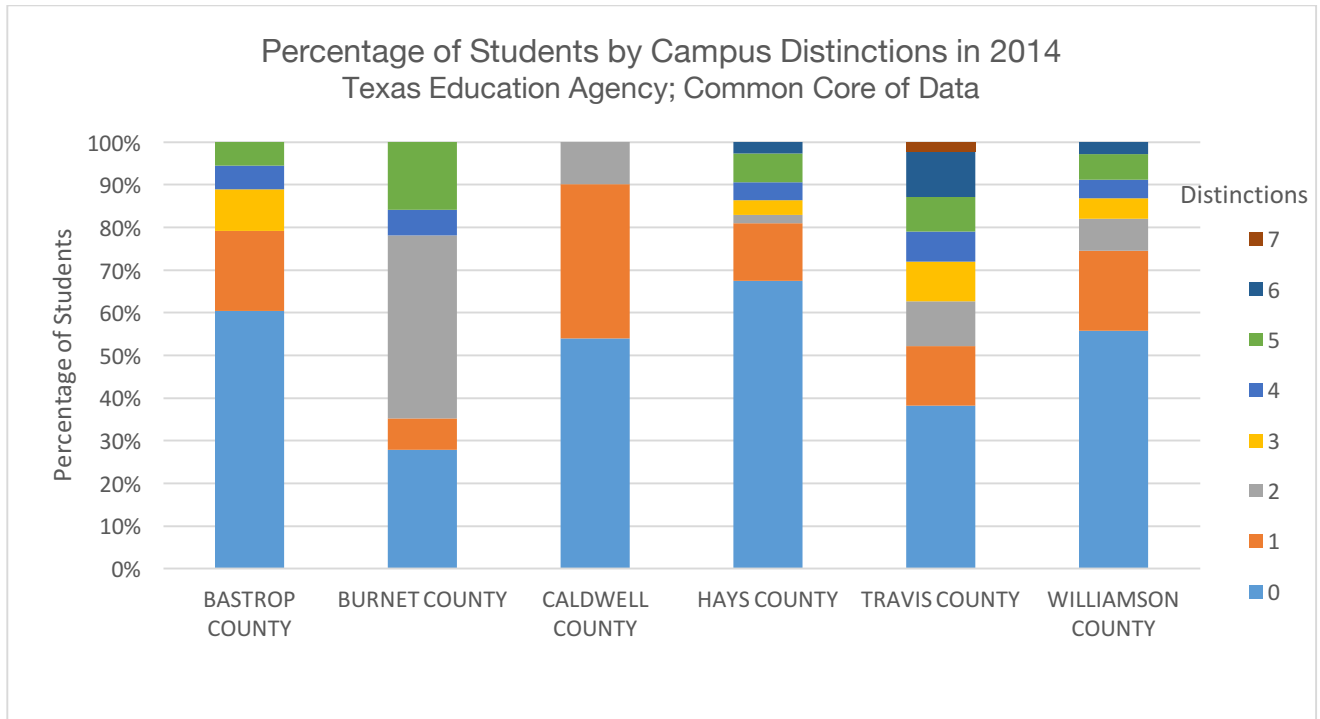
The chart below shows that overall, a low percentage of total students attended exemplary campuses in the Austin area. Moreover, there were substantial differences across counties, with no exemplary campuses in Bastrop County in 2010 and 2011. The campuses in other counties demonstrated significant improvement over time, with Williamson County showing the greatest improvement from 1.57% of students attending exemplary campuses in 2004 to around 37% students attending exemplary campuses in 2011.



*No accountability ratings were assigned in 2012.

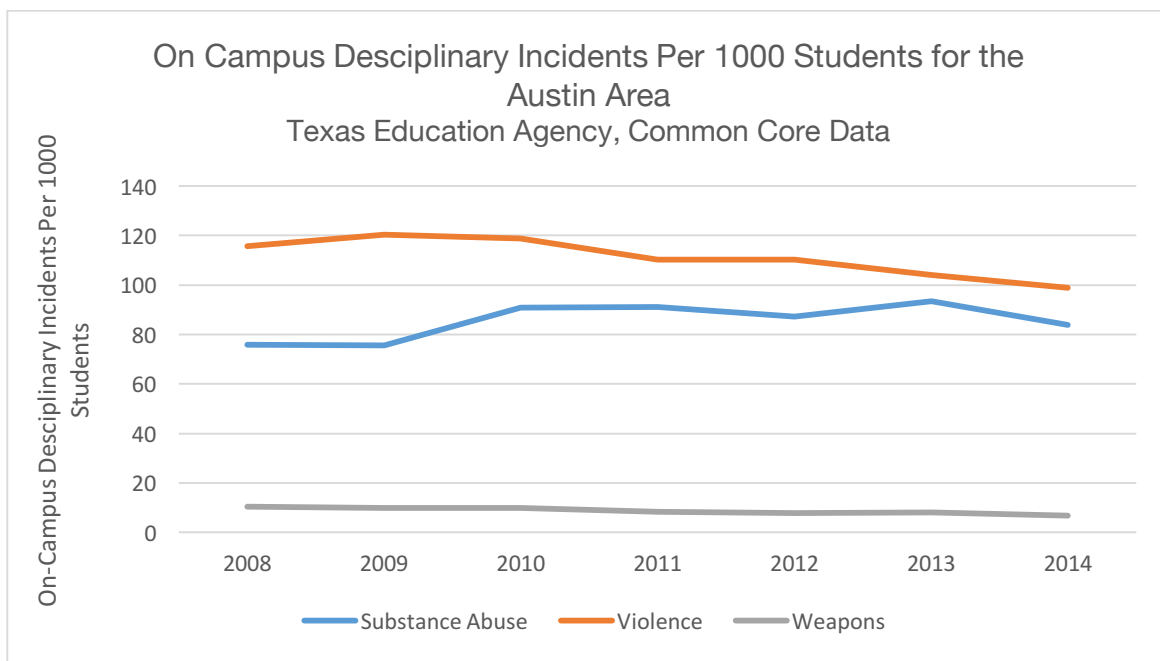
While the percentage of students attending, exemplary campuses improved until 2011, it is worth noting that the rating ‘Met Standard’ introduced in 2013 is not directly comparable to Exemplary campuses, as the rating has much lower targets for the performance indices than the ‘Exemplary Campus’ rating in the previous accountability system. An analysis of the campus distinctions assigned under the new accountability rating system introduced in 2013 provides a better insight into the performance of campuses in the different counties.

For 2014, a distinction designation was awarded to a campus if the campus fell in the top 25 percent of the campuses in its comparison group for each of 7 performance indicators: academic achievement in English Language, Mathematics, Science, Social Studies, student progress, reduction in performance gap and for postsecondary readiness. An analysis of the campus distinctions shows that Caldwell County has no campus with greater than 2 distinctions in 2014 and only a very small percentage of students (2% of Travis County students) attended schools with all seven distinctions.



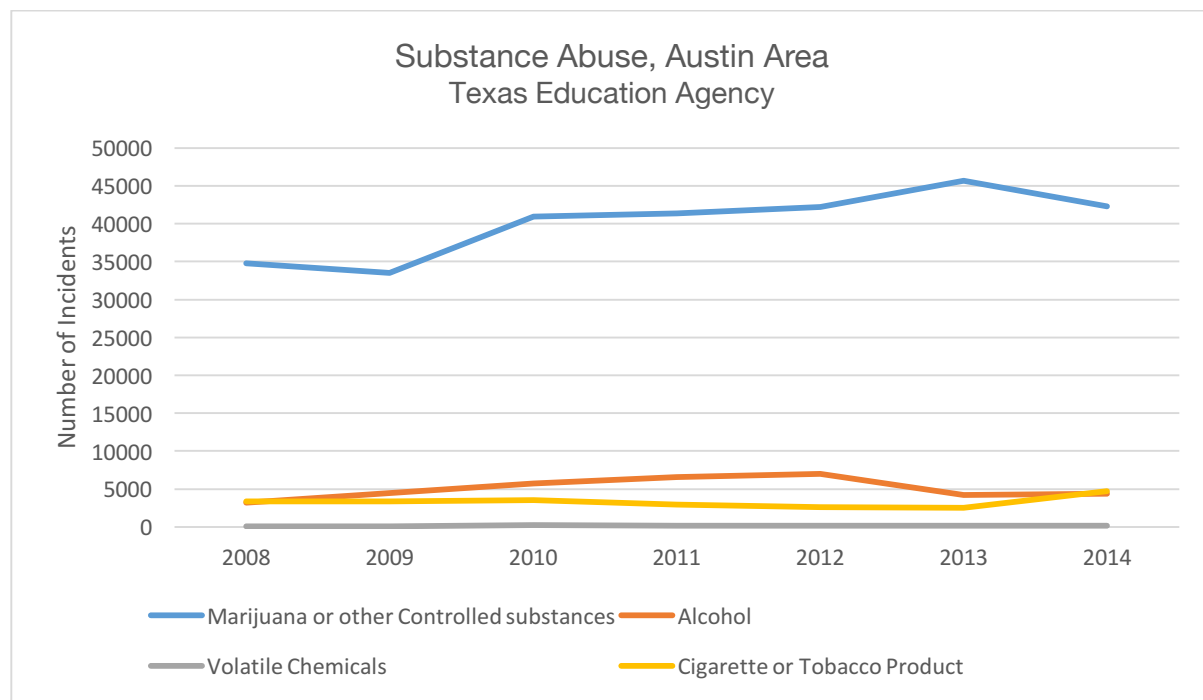
On – Campus Disciplinary Incidents

On campus disciplinary incidents disrupt the educational environment on campus. Fortunately, in school campuses in the Austin area, incidents of violence and students bringing weapons to class have shown a continuous decline. However, the number of substance abuse incidents per 1,000 students revealed an overall increase of about 12% since 2008. Although these numbers are cumulative for the region, understanding these trends by county is important for local school district planning.



*County level data currently not available.

Disaggregating substance abuse statistics shows that the major increases have been in the number of incidents involving the use or exchange of marijuana or other controlled substances. There was also some increase in incidents involving the use or exchange of alcohol in school, but the number of incidents declined in 2013. There was also an increase in the use or exchange of cigarette and tobacco products from 2013 to 2014.



Schools – Performance

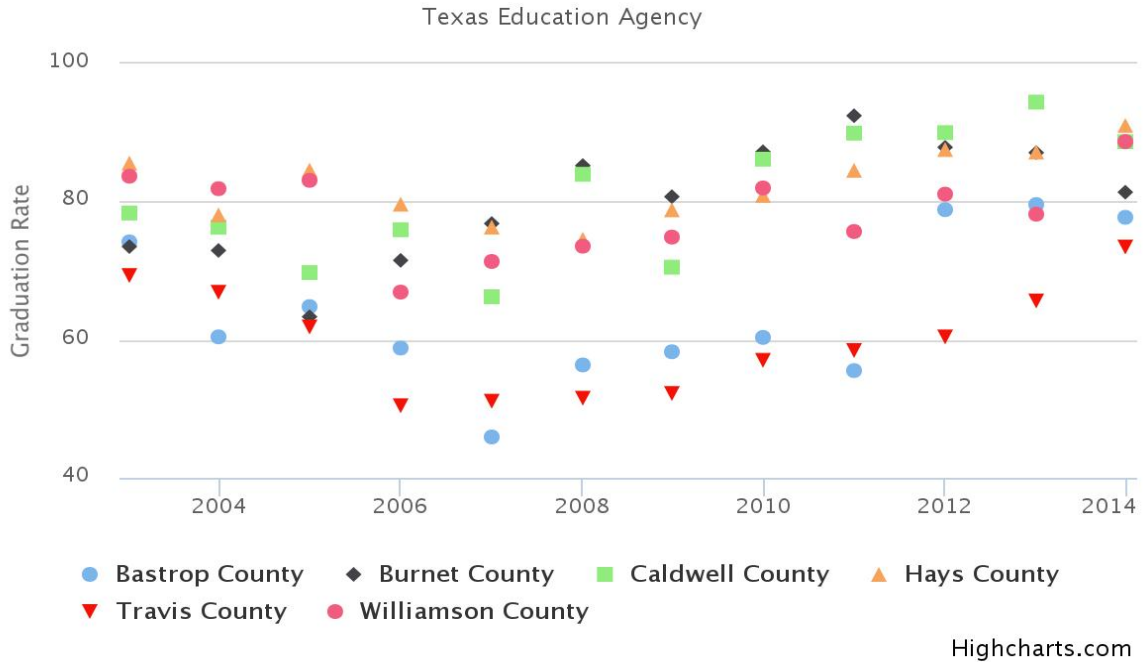
Academic performance, as often assessed through standardized testing, is the most broadly used determination of whether quality and equity efforts have been successful, despite the persistence of gaps in equity. Differences in academic performance by campus and by school district often mirror other economic and land use patterns.

Increased high school graduation rates are correlated with better social and economic life outcomes. Thus, the opposite is also true. People without a high school degree experience limited earning potential. Youth who are not attending school and have not yet earned a high school diploma have a harder time transitioning to a productive adulthood.

Graduation Rates and Drop Out Rates by County over Time

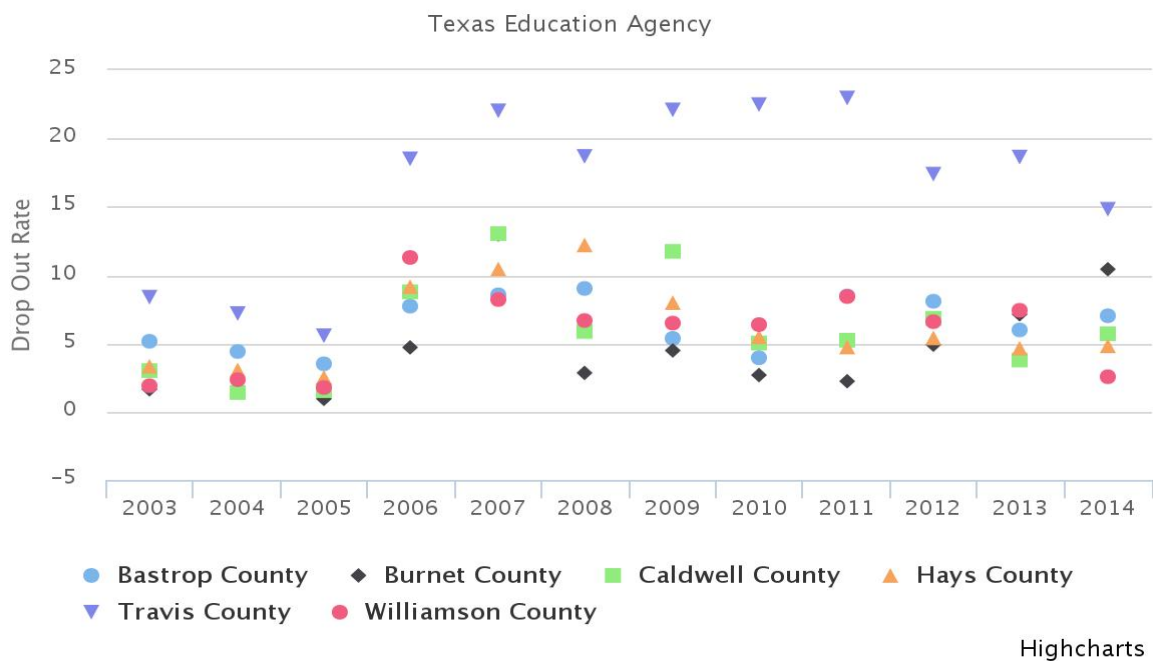
The average four-year graduation rate varies considerably by county, though the gap between the counties has reduced in recent years. In 2014, while the campuses in Hays County had an average graduation rate of 91%, the campuses in Travis County had an average graduation rate of 73%, resulting in a gap of 17%.

Average 4-year Graduation Rates by County



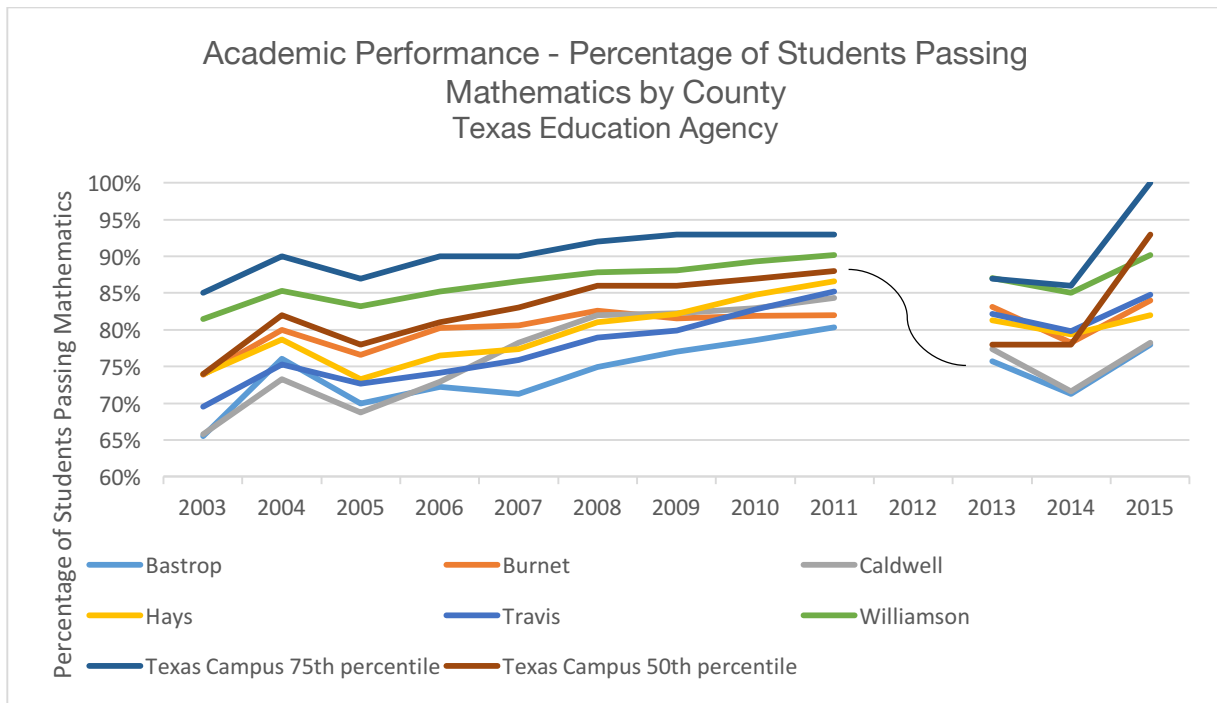
Of the 27% of students who did not graduate from their high school campuses within 4 years in Travis County, an average of 15% dropped out of school. Travis County has the highest drop-out rates followed by Burnet (10.4%), Bastrop (7%), Caldwell (5.7%), Hays (4.8%), and Williamson (2.55%).

Average Drop Out Rates by County



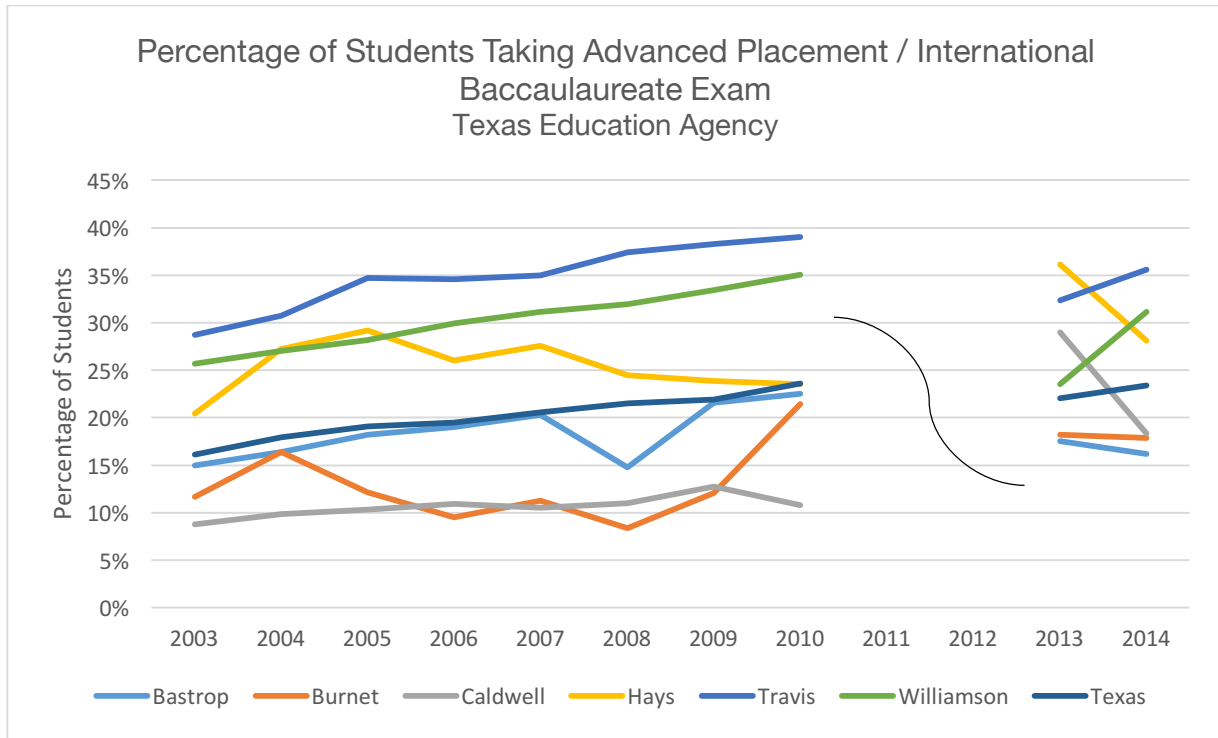
Academic Performance in Standardized Tests – All Students

School campuses in the region perform either comparable to or lower when compared to the campuses in the State of Texas overall. Moreover, there is a substantive difference in the performance of students in different counties within the Austin area. In standardized tests, Austin area campuses perform below the campus median for Texas. Only Williamson County falls within the 75th – 50th percentile for Texas campuses for most years except for 2015, while the performance of campuses in other counties fall below the state median.



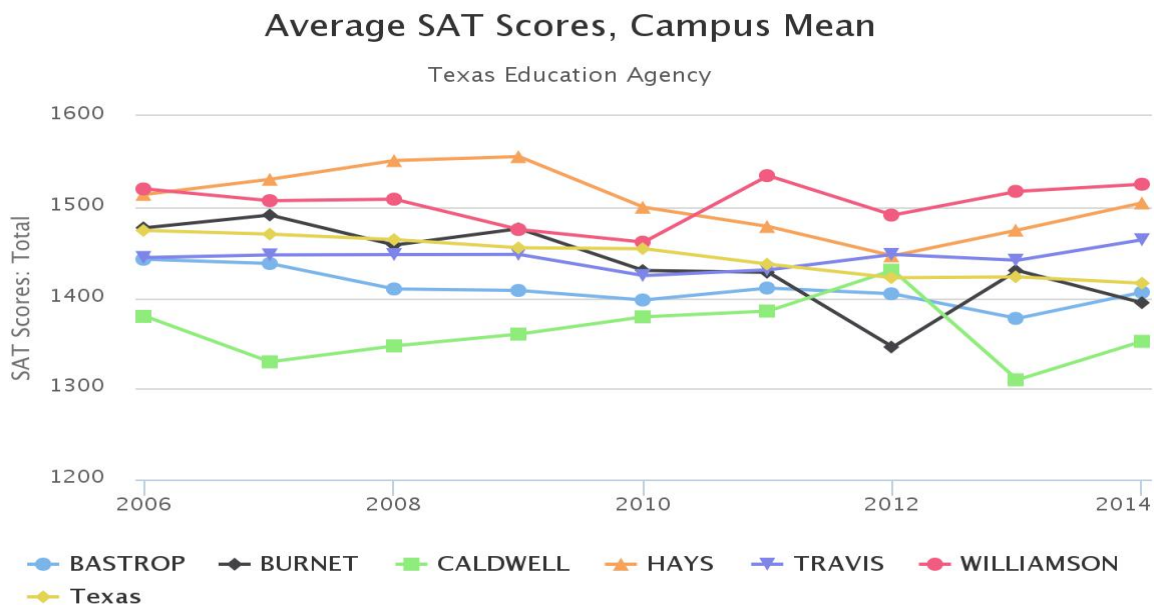
Post-Secondary Readiness – All Students

Student participation and performance in Advanced Placement/International Baccalaureate (AP/IB), SAT/ACT show the extent to which the students in the region are prepared for higher education. While a higher percentage of students in Travis, Williamson and Hays counties take AP/IB exams as compared to the overall State Average, a smaller percentage of students in Burnet, Bastrop and Caldwell counties take their AP/IB exams. The difference across counties is substantial. Bastrop County, with only 16% of students taking AP/IB exams, substantially lags behind Travis County, with the highest percentage (36%) of students taking AP/IB.



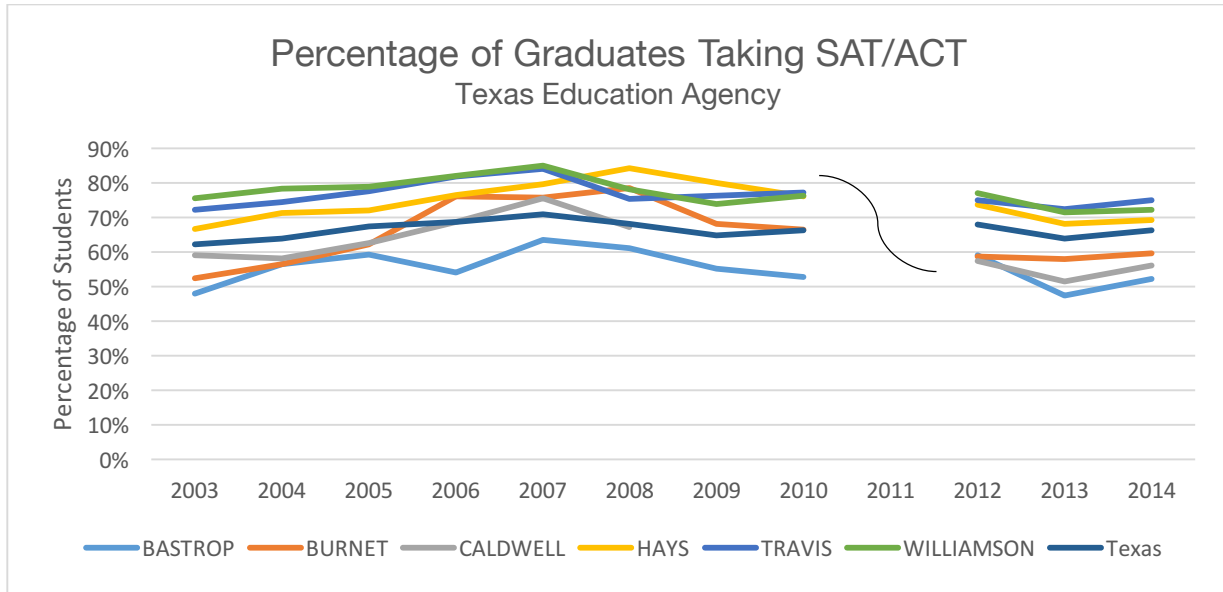
*Data for 2011 and 2012 not available

The Average campus SAT scores by county also shows the extent to which students in the region are prepared for post-secondary education. Again, campuses in Williamson and Hays counties show better average SAT scores than campuses in the other three counties.



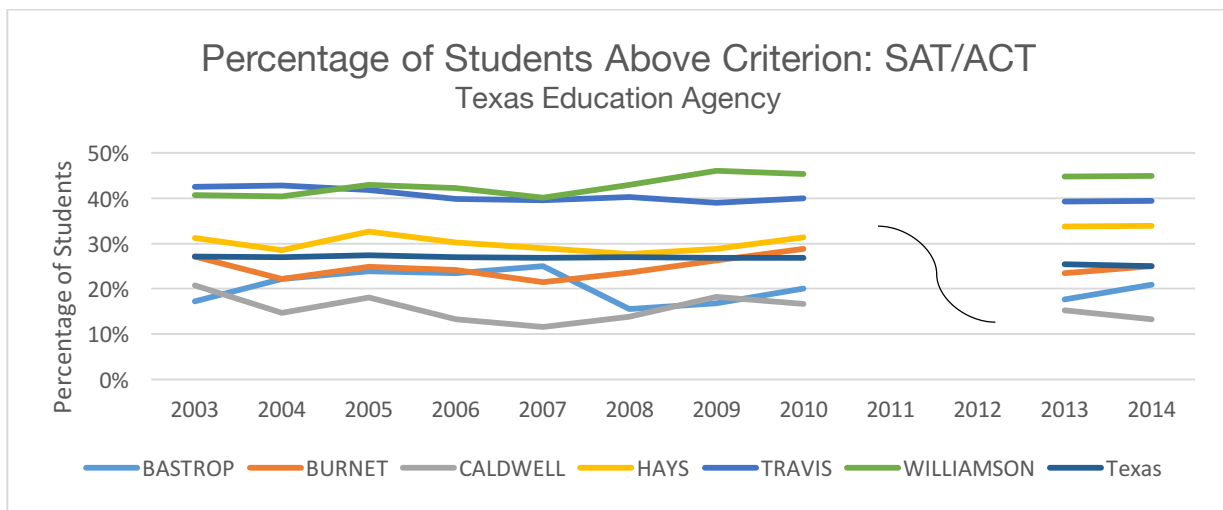
Highcharts.com

There are differences on SAT/ACT scores across counties, as well as in the percentage of students taking these exams across counties. A higher percentage of students in Williamson, Hays and Travis counties take their SAT or ACT exams as compared to the students in Bastrop, Burnet and Caldwell counties. In Bastrop, Burnet and Caldwell counties, almost half of the students do not take their SAT exams and, therefore, are unable to apply to a majority of 4-year universities.



*Data for 2011 is not available.

Of the students that sit for their SAT/ACT exams, there is a wide variation among counties in the percentage of students that procure a score of more than 1,100 (the criterion set by Texas Education Agency) in their verbal and quantitative sections. While 45% of the students in Williamson County procure SAT/ACT marks above 1,100, only about 15% of the students in Caldwell County acquire marks above the criterion. This difference has subsisted for years.



*Data for years 2011 and 2012 is not available.

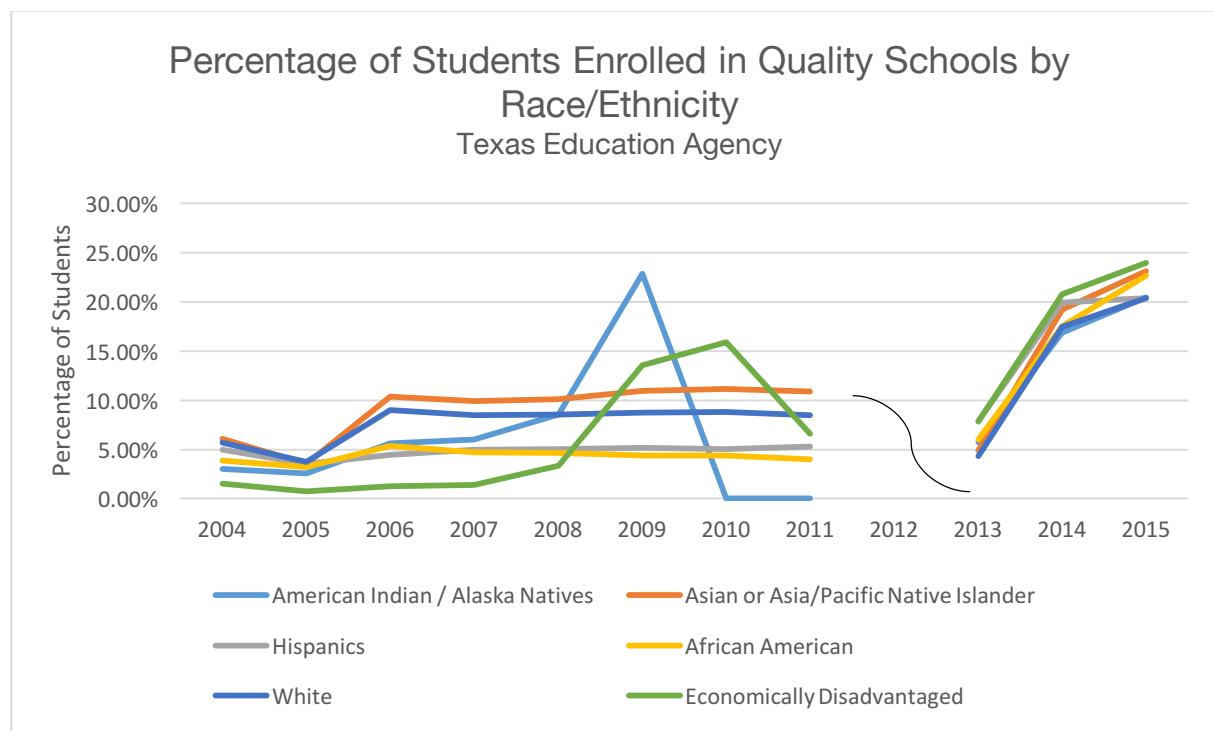
Schools – Equity

The public education system is the gateway for almost all children in a community to prepare themselves for success in life. Providing equity in education is as important as providing quality in education. Neighborhoods that provide children and youth with quality education give them important skills and opportunities in life. Educational attainment has long been seen as a key factor in economic mobility, as high school graduation rates are correlated with improved social and economic life outcomes.

Equity in Quality

A greater percentage of Asian and White students persistently studied at exemplary schools and schools with higher distinctions as compared to African American, Hispanic, Asian or Asia/Pacific Native Islander until 2011. Though this difference has persisted from 2004 to 2011, it appears to converge in 2014 with only minor differences remaining between the percentage of students in quality schools across ethnicities.

A greater percentage of economically disadvantaged students attended higher quality schools over time. This trend is promising, as nearly one-quarter (24%) of the total economically disadvantaged students in the Austin area region studied at campuses in 2015, with 3 or more distinctions, as compared to only 1.5% of economically disadvantaged students studying at exemplary campuses in 2004.

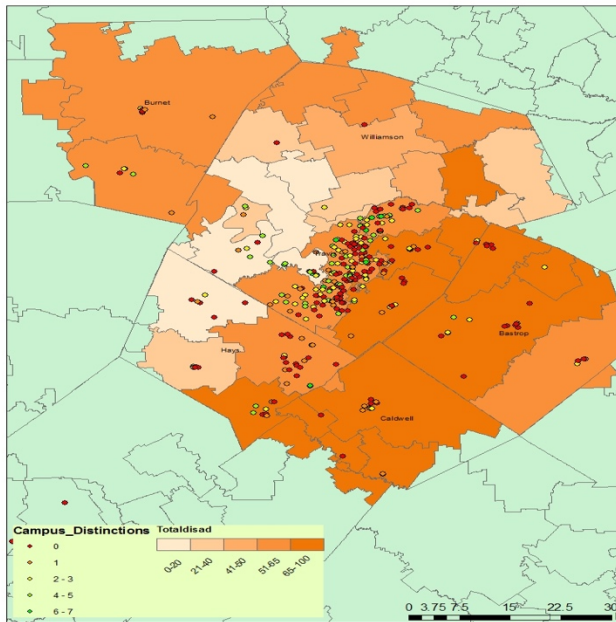


Map of Campus Distinctions and Disciplinary Incidents and Economically Disadvantaged Students

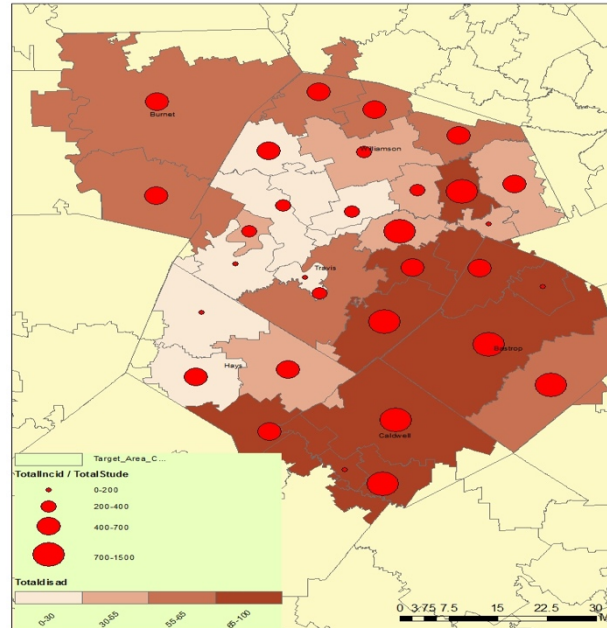
There seems to be an even spread of campuses with distinctions over the school districts in the Austin area. The school districts with a greater number of economically disadvantaged students have similar proportions of high quality campuses available. A map of on-campus disciplinary incidents

compared against the number of economically disadvantaged students by school districts reveals that school districts with higher percentages of disadvantaged students had higher disciplinary incidents (per 1,000 students). This has the potential of seriously affecting the quality of education received by economically disadvantaged students.

Campus Distinctions



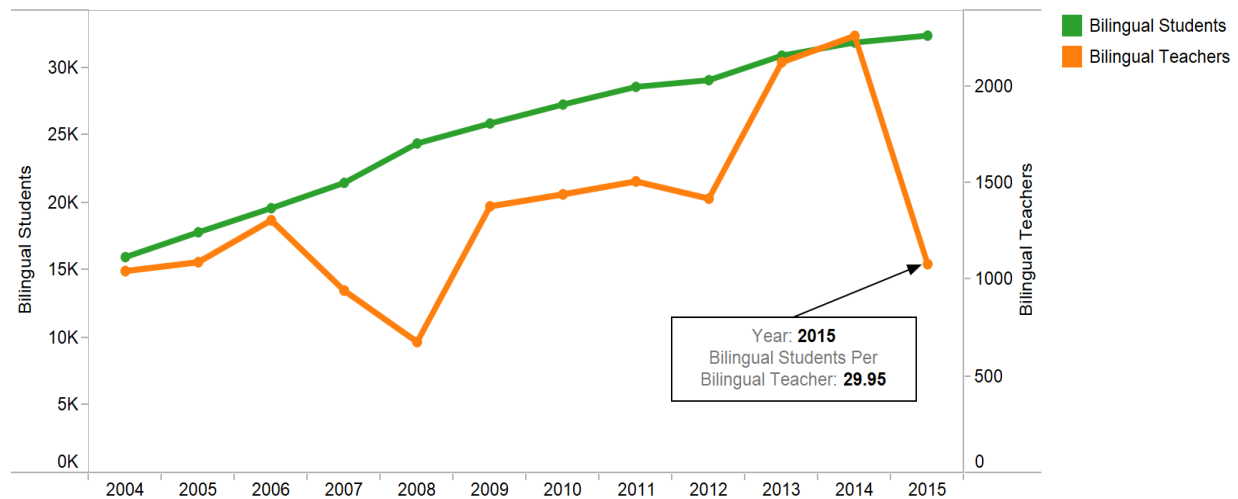
Campus Disciplinary Actions



Quality of Education to Bilingual Students

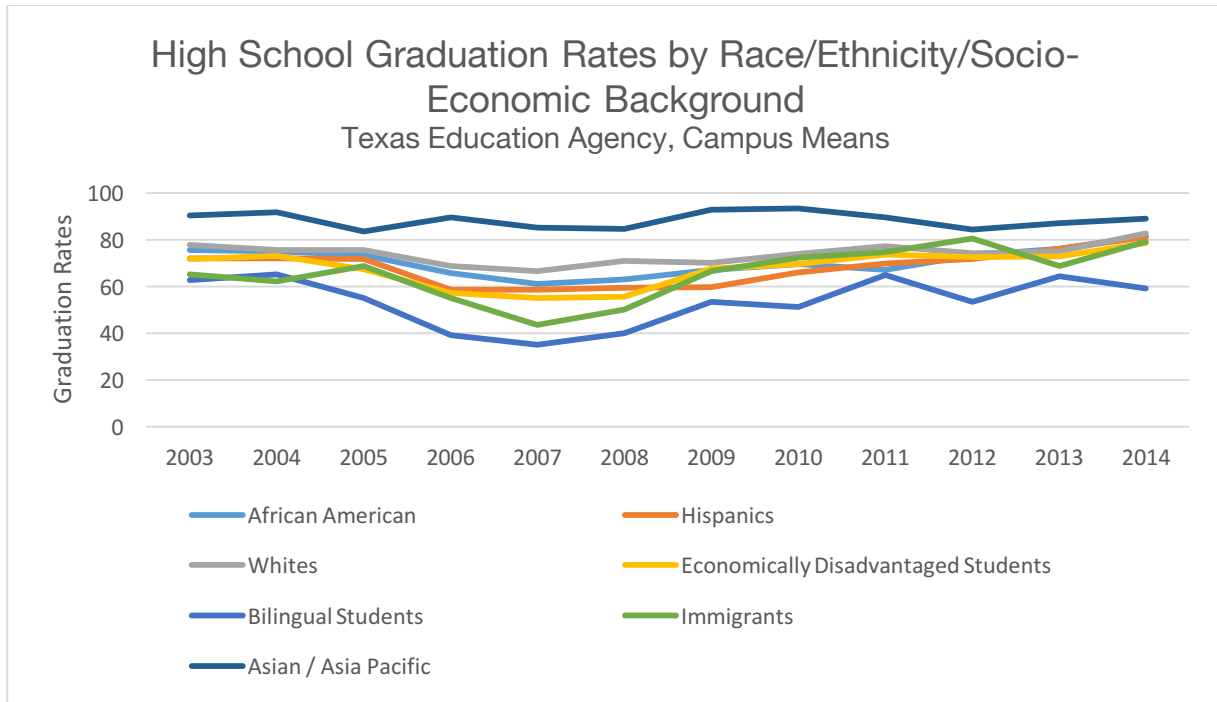
The quality of education available to bilingual students depend on their access to bilingual teachers in their campuses. The number of bilingual students has been increasing in the Austin area while the number of bilingual teachers in Austin area campuses has remained flat with a decline in 2015, bringing the ratio of bilingual students to teachers to 30:1.

Gap Between Bilingual Students and Teachers
Source: Texas Education Agency



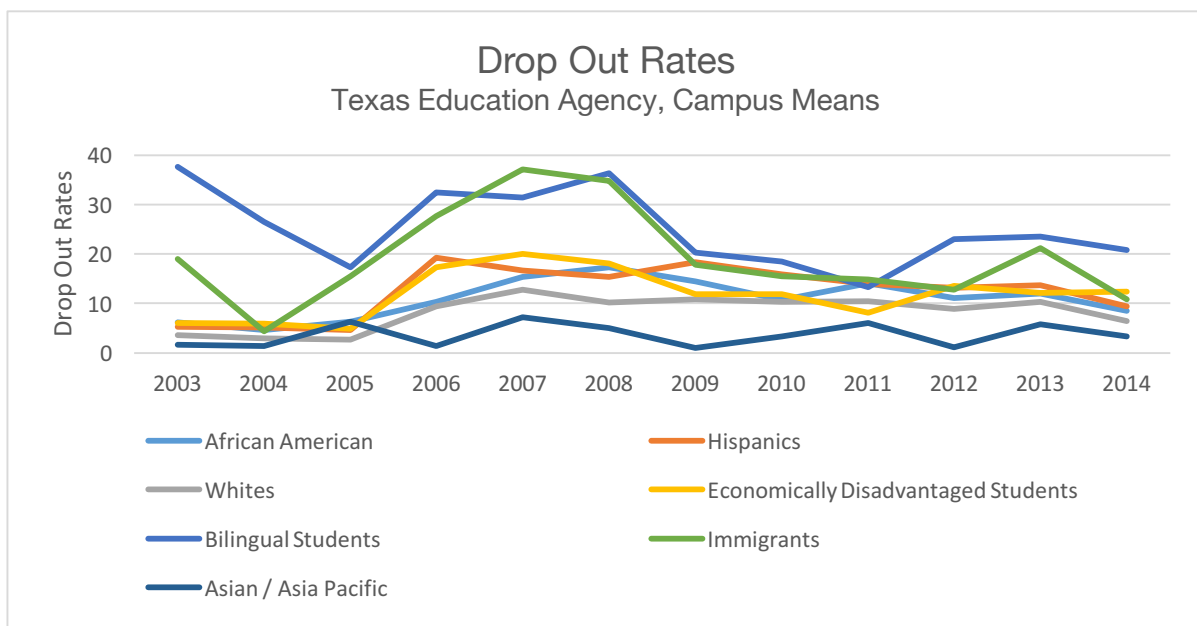
Graduation Rates – Equity

Asian/Asia Pacific Islander students have the highest graduation rates among the different races/ethnicities. While the high school graduation rates have converged for the different races/ethnicities and economically disadvantaged and immigrant students, bilingual students have a consistently lower graduation rate than other students. In 2014, this gap was around 20%.



Drop – Out Rates – Equity

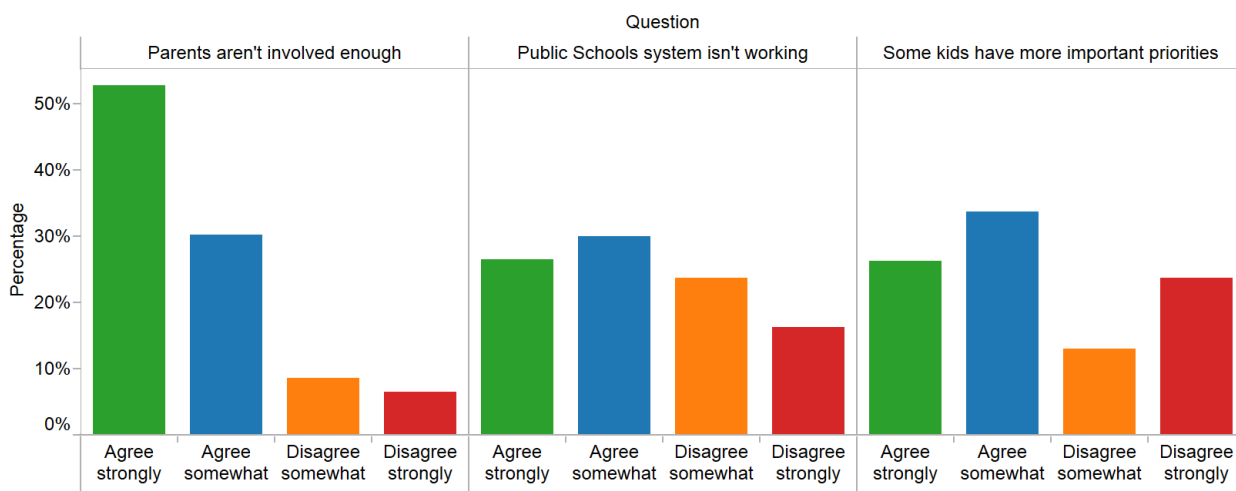
Of the 40% bilingual students who did not graduate from high school in 2014, 20% dropped out of school. This however is an improvement from 37% drop-out rate for bilingual students in 2003. An analysis of the drop-out rate also shows that though the graduation rates for most ethnicities were almost the same in 2014, economically disadvantaged students, immigrant children, Hispanic and Black children were more likely to drop out if unable to complete their high school education within 4 years.



Responses from the survey indicate that approximately 83% of respondents believe that a lack of parental involvement is an important factor in student drop-out or poor performance. In 2008 and 2012, this number was closer to 90%. Although not as strong, a majority also believe a non-working public school system, as well as the alternative priorities students may have, are factors in poor student performance.

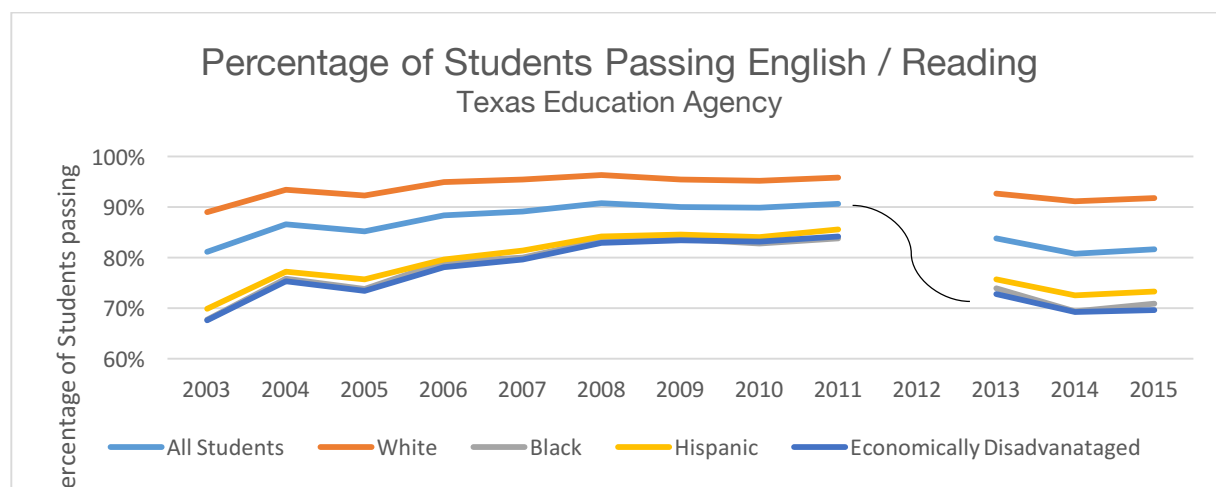
A²SI Community Survey 2015

Perspectives on Dropouts



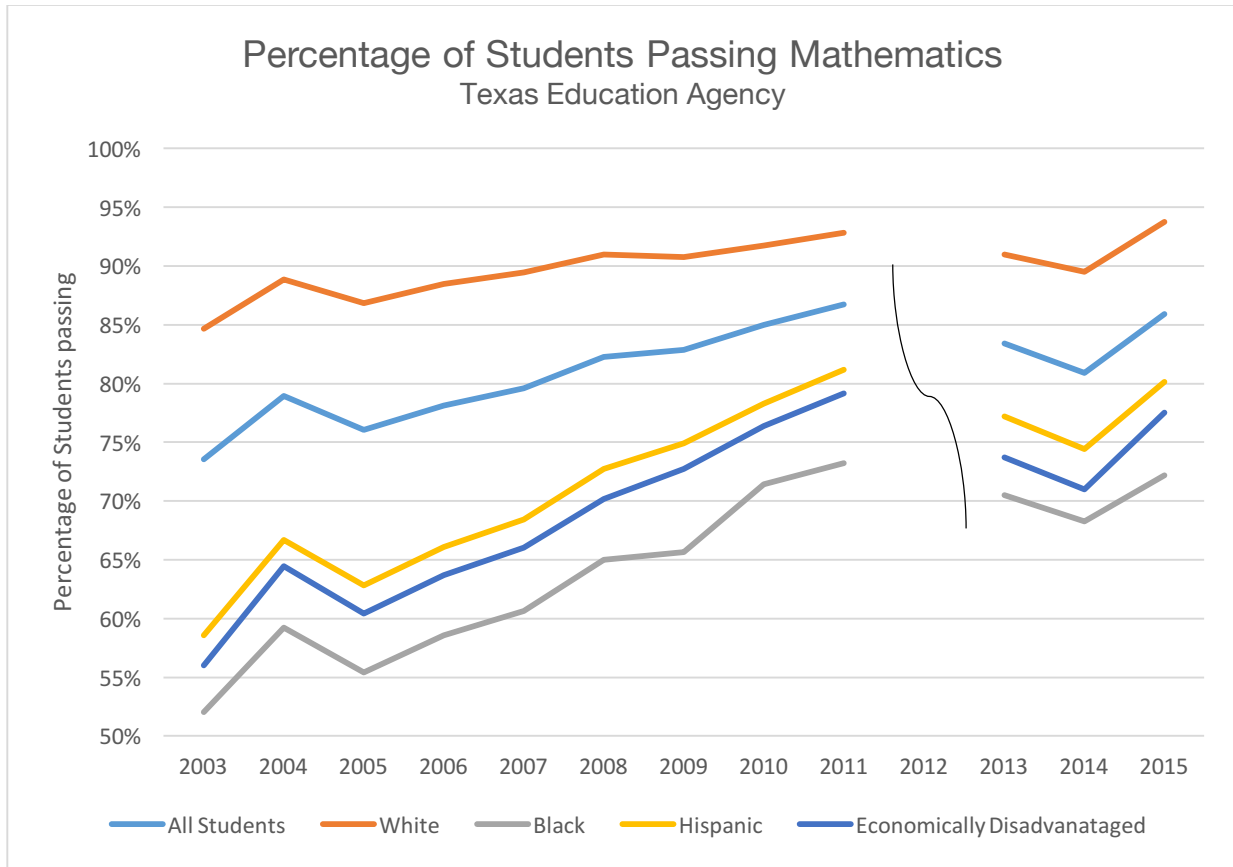
Academic Performance by Ethnicity and Income Level – English / Reading

Economically disadvantaged, Hispanic, and Black students consistently demonstrated poorer performance on standardized tests compared to White students. The gap in performance is about 22% between the highest performing group (White students) and the lowest performing group (Economically disadvantaged) for English assessments in 2015. This gap in performance has subsisted over time.



Academic Performance by Ethnicity and Income Level – Mathematics

Similar gaps in performance across race and ethnicity exist for assessments of Mathematics, although this gap has declined over the years from 33% between the highest performing group (White students) and the lowest performing group (Black students). The gap between these two groups stood at 22% in 2015.

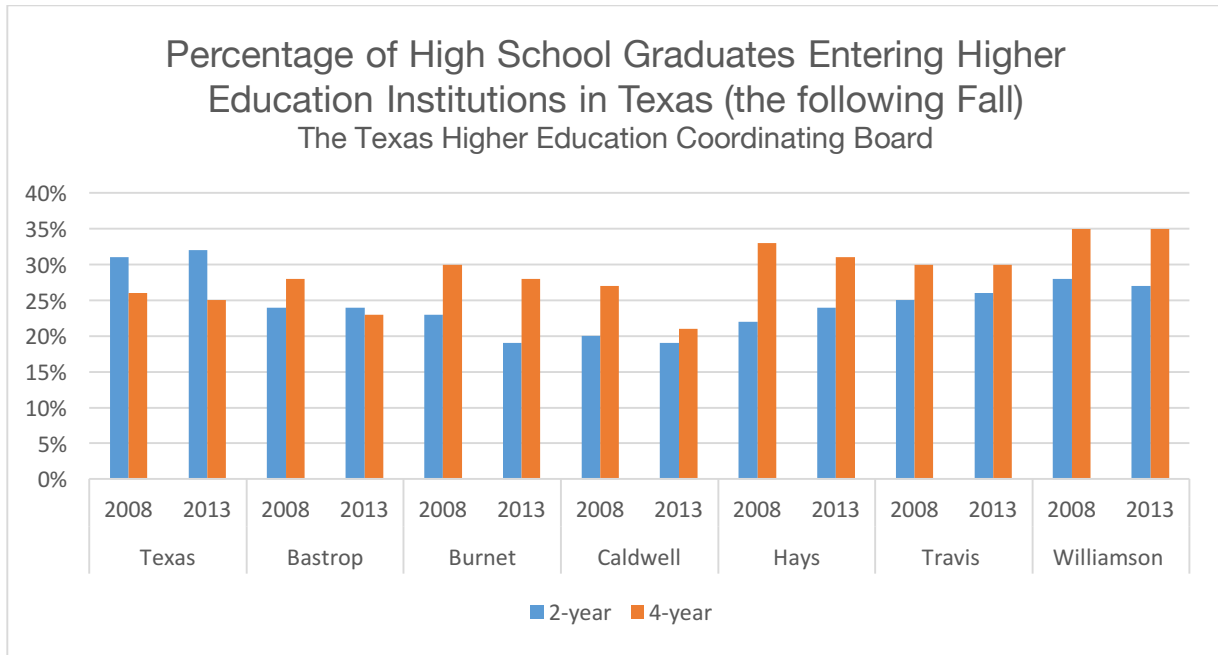


Higher Education

The higher education system is a gateway for youth to the full range of employment opportunities as well as an economic driver for the entire region.

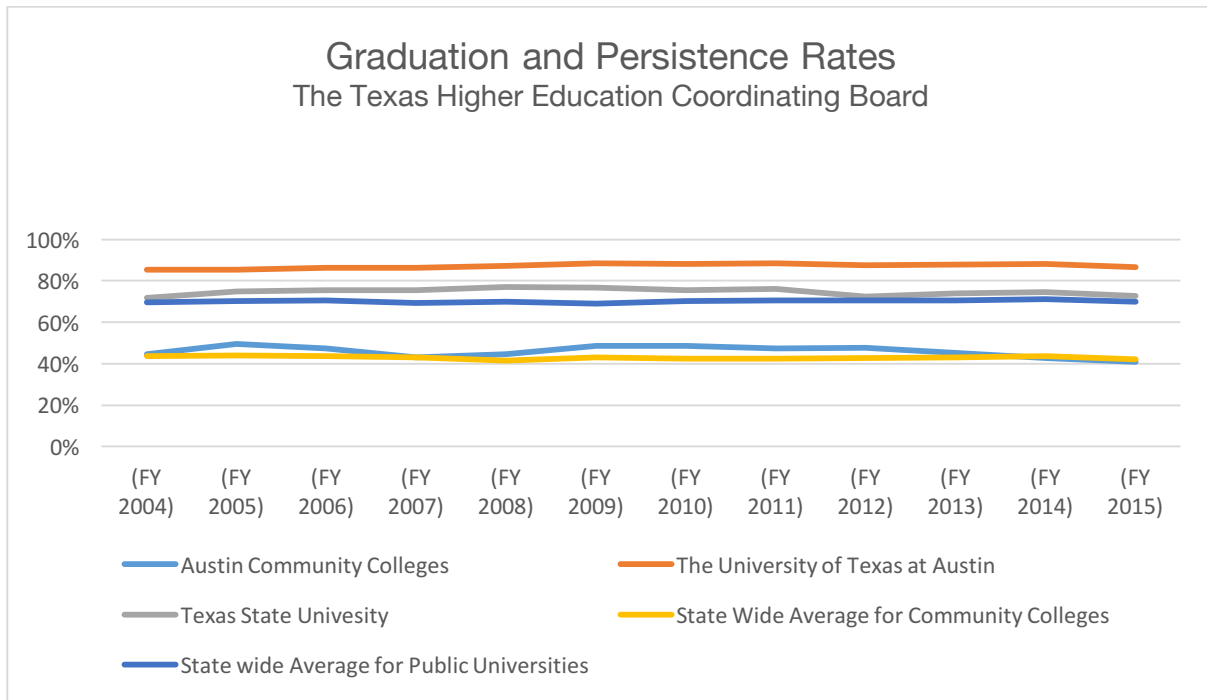
Access

Among the high school graduates in the Austin area who enter the Texas higher education institutions the fall of their graduation year, a higher percentage of students attended 4-year institutions than 2-year colleges. For Texas overall, the trend is in the opposite direction, with a higher percentage of high school graduates enrolling into 2-year higher education institutions. Within the region, Bastrop County in 2013 experienced a lower percentage of high school graduates enrolling into 4-year institutions compared to 2-year institutions.



Performance

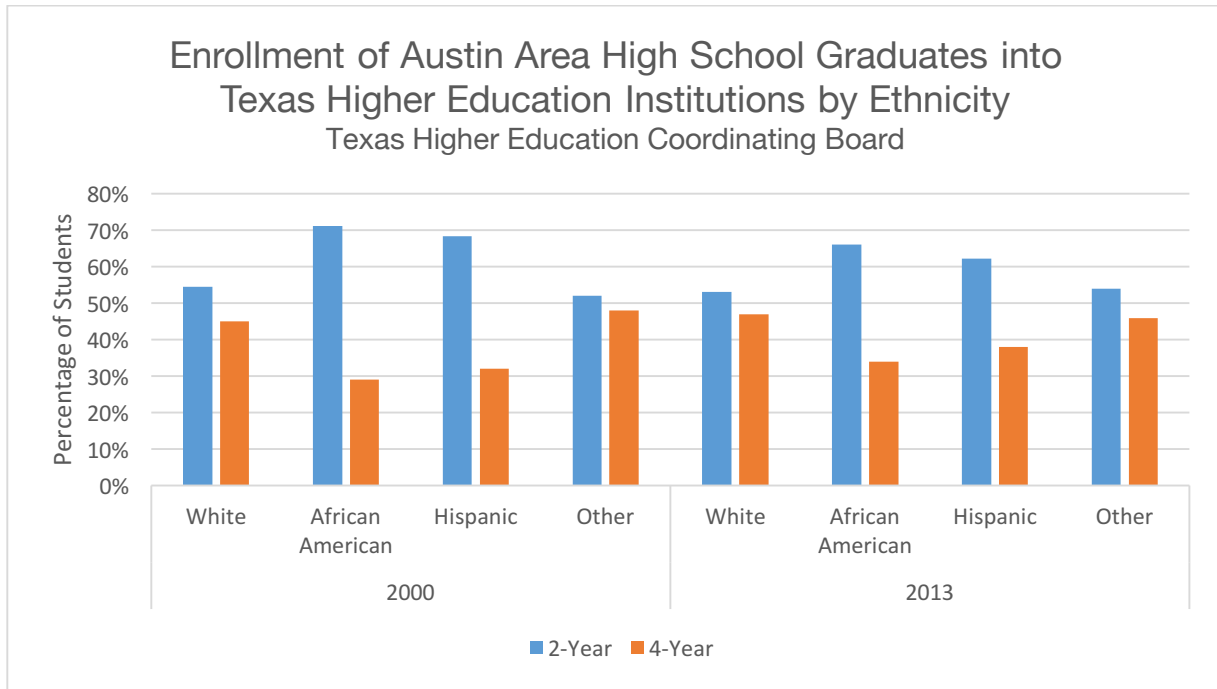
The graduation and persistence rates of higher education institutions in the Austin-Round Rock-San Marcos have remained consistent over time. The graduation and persistence rates for students at The University of Texas at Austin is about 17% higher than the statewide average for public universities in Texas. The graduation and persistence rates for Texas State University and Austin Community Colleges are comparable to the statewide average for public universities and community colleges.



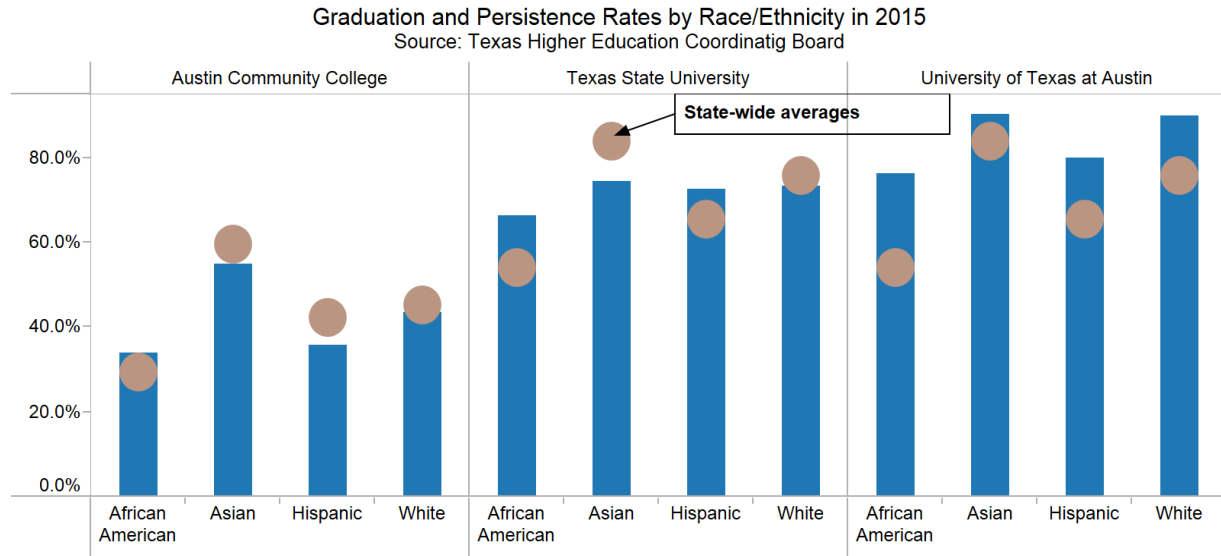
*ACC and other community college students may transfer to four year institutions.

Higher Education – Equity

Across all ethnicities, high school graduates of the Austin area are more likely to attend 2-year higher education institutions as compared to 4-year universities. The gap between the percentage of students who attended 2-year and students who attended 4-year higher education institutions, reduced from 2000 to 2013 for all ethnicities. However, two-thirds (66%) of African American high school graduates attended 2-year higher education institutions, while about one-third (34%) attended 4-year colleges.



There are substantial differences in graduation and persistence rates across ethnicities, with Hispanic and African American students lagging behind White and Asian students. On average, there is about a 22% gap between the graduation and persistence rates for the ethnicity with the highest graduation rate (Asian or White) and the ethnicity with the lowest graduation rate (African American). Given that Hispanic youth are expected to become a majority youth group in the Austin area by 2040, continued lower graduation and persistence rates for Hispanics would affect the overall graduation rates and lead to an under-educated population in the region.



*ACC and other community college students may transfer to four year institutions.

Summary and Conclusion

A robust system of education indicators is expected to provide accurate and precise information to illuminate the condition of education and contribute to its improvement. A successful education system starts with early child development and access to quality childcare. Similarly, access to a quality education is key to a sustainable Austin area. Understanding, and working to resolve, disparities in childcare and education is critical for a truly sustainable region.

Appendix A: Glossary

Accredited Child Care Facility - A process through which child care programs voluntarily meet specific standards to receive endorsement from a professional agency. The National Association for the Education of Young Children (NAEYC) and the National Accreditation Commission for Early Care and Education Programs (NAC) are among the organizations that offer accreditation programs for child care.

Affordable Child Care – The Department of Health and Human Services benchmarks affordable child care costs at 10 percent or less of a family’s household income.

African American: Individuals having origins in any of the black racial groups of Africa as reported by each school.

Asian or Asian/Pacific Islander - Individuals having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands as reported by each school.

Bilingual Student - Student of limited English proficiency or a student whose primary language is other than English and whose English language skills are such that the student has difficulty performing ordinary classwork in English.

Drop Out Rates - A four-year longitudinal dropout rate is the percentage of students from the same class who drop out before completing their high school education. Students who enter the Texas public school system over the years are added to the class, and students who leave the system for reasons other than graduating, receiving a General Educational Development (GED) certificate, or dropping out, or who could not be tracked from year to year, are subtracted. Dropouts are counted according to the definitions in place the years they drop out. The definition changed in 2005-06. Longitudinal rates for the class of 2009 and later classes are comparable to one another. Rates for classes in which the national dropout definition was phased in (classes of 2006, 2007, and 2008) are not comparable from one class to another, nor are they comparable to rates for prior or later classes.

Economically Disadvantaged – The sum of the students coded as eligible for free or reduced-price lunch or eligible for other public assistance.

Equity – Equity in education refers to achievement, fairness, and opportunity in education. Two main factors contribute to educational equity: fairness and inclusion.

Graduation and Persistence Rate – First-time, full-time, degree-seeking students enrolled in a minimum of 12 credit hours their fall semester who have graduated or are still enrolled at the same institution or another Texas public or independent institution.

Graduation Rate - A four-year longitudinal graduation rate is the percentage of students from a class of beginning ninth graders who graduate by their anticipated graduation date, or within four years of beginning ninth grade.

The Division of Research and Analysis calculates the four-year longitudinal rate for graduates by dividing the number of students who graduated by the number of students in the class:

$$\text{longitudinal graduation rate} = \frac{\text{graduates}}{\text{graduates} + \text{continuers} + \text{GED recipients} + \text{dropouts}} \times 100$$

Hispanic: Individuals having Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race as reported by each school.

Head Start - A federal program that provides comprehensive developmental services for low-income, preschool children ages 3-5 and social services for their families. Head Start began in 1965 and is administered by the Administration for Children and Families of the U.S. Department of Health and Human Services. Head Start provides services in four areas: education, health, parent involvement and social services. Grants are awarded to local public or private non-profit agencies.

Improvement Required: Unacceptable rating assigned to districts, campuses, charter operators, and alternative education campuses (AECs) that miss the target on one or more performance indexes.

Licensed Child Care Facility - Child care programs operated in homes or in facilities that fall within the regulatory system of a state or community and comply with those regulations. Many states have different levels of regulatory requirements and use different terms to refer to these levels (e.g., licensing, certification, registration).

Met Alternative Standard: Acceptable rating assigned to charter operators and alternative education campuses (AECs) that are evaluated by alternative education accountability (AEA) provisions and meet modified targets on all performance indexes for which they have performance data in that year.

Met Standard: Acceptable rating assigned to districts and campuses that meet the target on all indexes for which it has performance data in that year. This rating applies to campuses serving grades prekindergarten (PK) through 12 (including campuses with assessment data due to pairing).

On-Campus Disciplinary Incidents – Incidents where students commit an offense that results in a disciplinary action undertaken by the school authorities as prescribed under the Texas Education Code (TEC).

School Readiness - The state of early development that enables an individual child to engage in and benefit from first grade learning experiences. Researchers, policymakers, and advocates have described school readiness in different ways, but generally they refer to children's development in five arenas: health and physical development; social and emotional development; approaches toward learning; language development and communication; and, cognition and general knowledge. Some policymakers and researchers also use the term "school readiness" to describe a school's capacity to educate children

Subsidized Child Care - Child care that is at least partially funded by public or charitable funds to decrease its cost for parents.

Substance Abuse – Substance abuse refers to possession, sale, use or being under the influence of Marijuana, alcoholic beverages, tobacco or other controlled substances. It also includes the handling of any volatile chemical on campus.

Quality - Quality child care commonly refers to early childhood settings in which children are safe, healthy, and receive appropriate stimulation for development of cognitive abilities. Care settings are responsive, allowing children to form secure attachments to nurturing adults. Quality programs or providers offer engaging, appropriate activities in settings that facilitate healthy growth and development, and prepare children for or promote their success in school.

White – Individuals having origins in any of the original peoples of Europe, North Africa, or the Middle East, as reported by each school.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Education	Child Care: Access	Percentage of Children aged 3-4yrs enrolled in a Child Care or Pre-School Program in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, American Community Survey, 1 year estimates, S1401: School Enrollment. Accessed 16 February 2016
Education	Child Care: Access	Children under 12 years Receiving Subsidized Child Care	Texas Kids Count	Kids Count Data Center, Children (0-12 years) receiving subsidized child care. Retrieved October 7, 2015, from http://datacenter.kidscount.org/data/Tables/3072-children-0-12-years-receiving-subsidized-child-care
Education	Child Care: Access	Public School Pre-K Enrollment	Texas Kids Count	Kids Count Data Center, Public PreSchool and Pre-K Enrollment, Retrieved October 7, 2015, from http://datacenter.kidscount.org/data/tables/4770-public-preschool-and-pre-k-enrollment .
Education	Child Care: Access	Average Costs of Child Care in The Austin Area	Texas Workforce Commission; FFIEC	Federal Financial Institutions Examination Council, Median Family Income Report. https://www.ffiec.gov/MedianIncome.htm . Accessed 27 Oct. 2015
Education	Child Care: Quality	Kindergarten Readiness	E3 Alliance	E3 Alliance. 2015. The Blueprint for Educational Change. Retrieved February 19, 2016, from http://e3alliance.org/category/topic/blueprint-for-educational-change/
Education	Child Care: Quality	Capacity of Child Care Facilities in The Austin Area	Texas Department of Family and Protective Services; Texas State Demographer	Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Education	Child Care: Quality	2014 Snapshot of Quality of Child Care Facilities in The Austin Area	U.S. Census Bureau; Texas Department of Family and Protective Services	Texas Department of Family and Protective Services, Child Care Operation, http://www.dfps.state.tx.us/Child_Care/Search_Texas_Child_Care/ppFacilitySearchDayCare.asp . Accessed 4 Jan 2016.; U.S. Census Bureau, American Community Survey, 2014 5yr estimate, GCT2302: Percent of Children under 6 years old with all parents in the labor force.

Education	Child Care: Quality	Wages of Child Care Workers	U.S. Bureau of Labor Statistics	U.S. Bureau of Labor Statistics, Tables, http://www.bls.gov/oes/tables.htm . Retrieved 19 Oct 2015.
Education	Schools: Quality	Exemplary Campuses / Campuses that Met Standard by County	Texas Education Agency; National Center for Education Statistics	Texas Education Agency, Texas Accountability Rating System. Retrieved October 29, 2015, from http://ritter.tea.state.tx.us/perfreport/account/ National Center for Education Statistics, Common Core of Data (CDD). Retrieved October 29, 2015, from http://nces.ed.gov/ccd/elsi/tableGenerator.aspx
Education	Schools: Quality	On-Campus Disciplinary Incidents	Texas Education Agency	Texas Education Agency, Region Discipline Action Group Summary - For a Selected Region. (n.d.). Retrieved October 28, 2015, from http://ritter.tea.state.tx.us/adhocrpt/Disciplinary_Data_Products/DAG_Summaries/Download_DAG_Region.html
Education	Schools: Performance	Graduation Rates, Drop Out Rates, Completion Rates	Texas Education Agency	Texas Education Agency, Completion, Graduation, and Dropouts Data Search. (n.d.). Retrieved October 28, 2015, from http://tea.texas.gov/acctres/dropcomp/years.html#comp
Education	Schools: Performance	Academic Performance in Standardized Test	Texas Education Agency	Texas Education Agency, Texas Accountability Rating System. (n.d.). Retrieved October 29, 2015, from http://ritter.tea.state.tx.us/perfreport/account/
Education	Schools: Performance	AP/IB Participation Rates	Texas Education Agency	Texas Education Agency, Texas Accountability Rating System. (n.d.). Retrieved October 29, 2015, from http://ritter.tea.state.tx.us/perfreport/account/
Education	Schools: Performance	SAT	Texas Education Agency	Texas Education Agency, College Admissions Testing: SAT and ACT. (n.d.). Retrieved October 28, 2015, from http://tea.texas.gov/acctres/sat_act_index.html

Education	Schools: Performance	Percent of Graduates Taking ACT	Texas Education Agency	Texas Education Agency, College Admissions Testing: SAT and ACT. (n.d.). Retrieved October 28, 2015, from http://tea.texas.gov/acctres/sat_act_index.html
Education	Schools: Equity	Shapefiles for Schools and School Districts	Texas Education Agency	Texas Education Agency; Shape Files for Schools, School Districts, Data Download. (n.d.). Retrieved March 7, 2016, from http://tea.texas.gov/Texas_Schools/General_Information/School_District_Locator/Data_Download/
Education	Schools: Equity	Shapefiles for Counties	Texas Parks & Wildlife Department	Texas Parks & Wildlife Department, GIS Data Download, Counties (n.d.). Retrieved June 3, 2016, from http://tpwd.texas.gov/gis/data
Education	Schools: Equity	Number of Bilingual Students and Teachers	Texas Education Agency	Texas Education Agency, Program Reports. Retrieved from Kathleen Cameron, Public Information Coordinator, TEA Public Information Office.
Education	Higher Education: Access	High School Graduates Entering Higher Education Institutions in Texas the Following Fall	The Texas Higher Education Coordinating Board	The Texas Higher Education Coordinating Board, Texas Higher Education Data. (n.d.). Retrieved October 30, 2015, from http://www.txhighereddata.org/Interactive/HSCollLink.cfm
Education	High Education: Performance	Graduation and Persistence Rates	The Texas Higher Education Coordinating Board	The Texas Higher Education Coordinating Board, Accountability System - Universities - Success - Statewide Totals. (n.d.). Retrieved March 31, 2016, from http://www.txhighereddata.org/Interactive/Accountability/UNIV_Success.cfm?FICE=44556

Education	High Education: Equity	Enrollment into Higher Education Institutions	The Texas Higher Education Coordinating Board	The Texas Higher Education Coordinating Board, Fall 2013 Resident Enrollment Tables, Region 7, Retrieved from A. Cris Hamilton, PhD, Program Director
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Social Equity

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Austin Area Sustainability Indicators (2016) – Social Equity

Contents

Austin Area Sustainability Indicators (2016) – Social Equity.....	1
Social Equity	3
Cost of Living.....	3
Gap Between Income and Consumption	3
Income Inequality.....	4
Per Capita Income by Race / Ethnicity	5
Living Wage in Austin-Round Rock MSA	5
Family Poverty	7
Housing: Ownership	7
Median Home Price	7
Distribution of Home Prices	8
Home Loans.....	9
Owning Cost Burden	9
Age of Housing Stock.....	10
Housing: Rental.....	10
Rental Vacancy Rates	10
Renting Cost Burden.....	11
Perception of Affordable Housing	12
Diversity of Leadership.....	13
Diversity of Elected Officials	13
Diversity of Judiciary.....	15
Diversity of School Board Trustees.....	15
Race Relations	16
Discrimination on the Job.....	16
Interacting with Other Races.....	17
Racial Tension: Government Role.....	18
English Proficiency.....	19
Perception of Literacy Limiting Job Opportunities	19
Comfort Using Language Other Than English	19
Summary and Conclusion.....	20

Appendix A: Glossary 21

Appendix B: Bibliography 23

Social Equity

Social equity can be seen as a rough measure of equal access to prosperity and livelihood among the different segments of a society. A socially equitable society indicates equal participation in the political and cultural life of the community.

Indicators in this section compare the persistence of social equity among the different segments of the Austin Area residents. This is done across socio-economic, racial, and gender segments. The main indicators include Cost of Living, Housing, Diversity of Leadership, Race Relations, and English Proficiency.

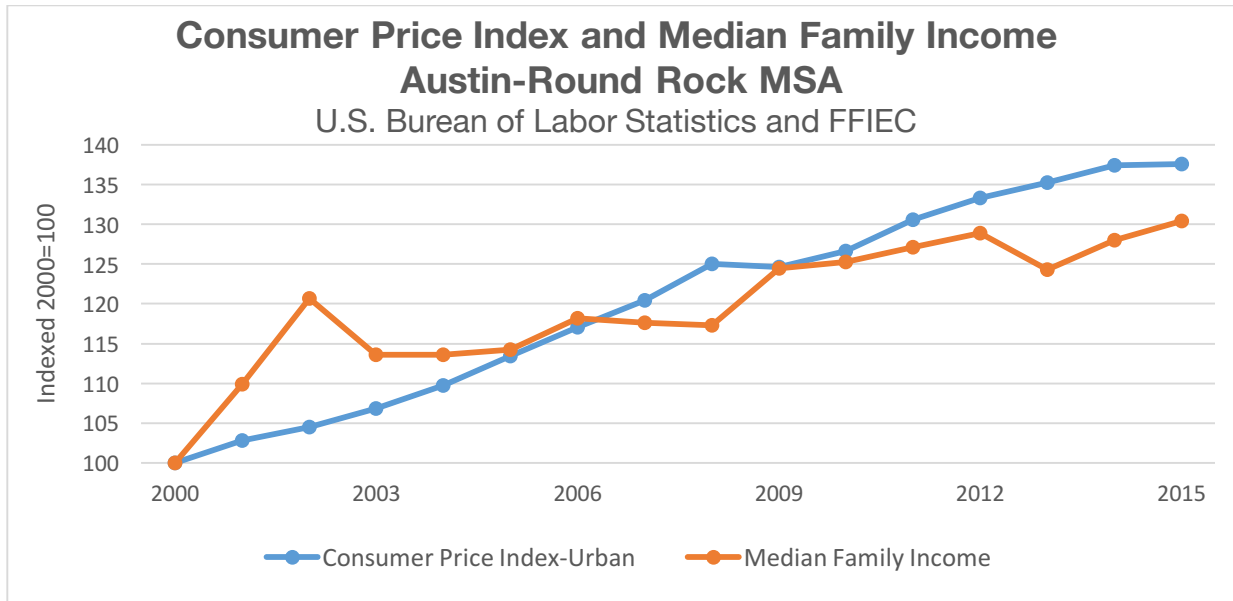
In general, the Austin Area has seen higher family expenses that keep families living on the edge of their means, which expands inequality. The gap between minimum wage and monthly costs has increased more than the other major metropolitan areas in Texas. At the same time, poverty levels remain constant and disparities within the indicators by race/ethnicity persist. Racial tension appears to be increasing and people of color, as well as women, remain under-represented in the public sphere.

Cost of Living

Most definitions and measures around cost of living share the premise that quality of life is lessened if the cost of living keeps a family constantly at the edge of its means. This sheds light on places where it takes more money to purchase the same goods and services as compared to other regions. A high cost of living squeezes families with children. Single parent families with children face the greatest challenge in maintaining a living wage, which is more than double the minimum hourly wage in Texas. Sustainability is concerned with balancing the costs and allocation of resources such that meeting one's own basics needs is within reach of every member of the population.

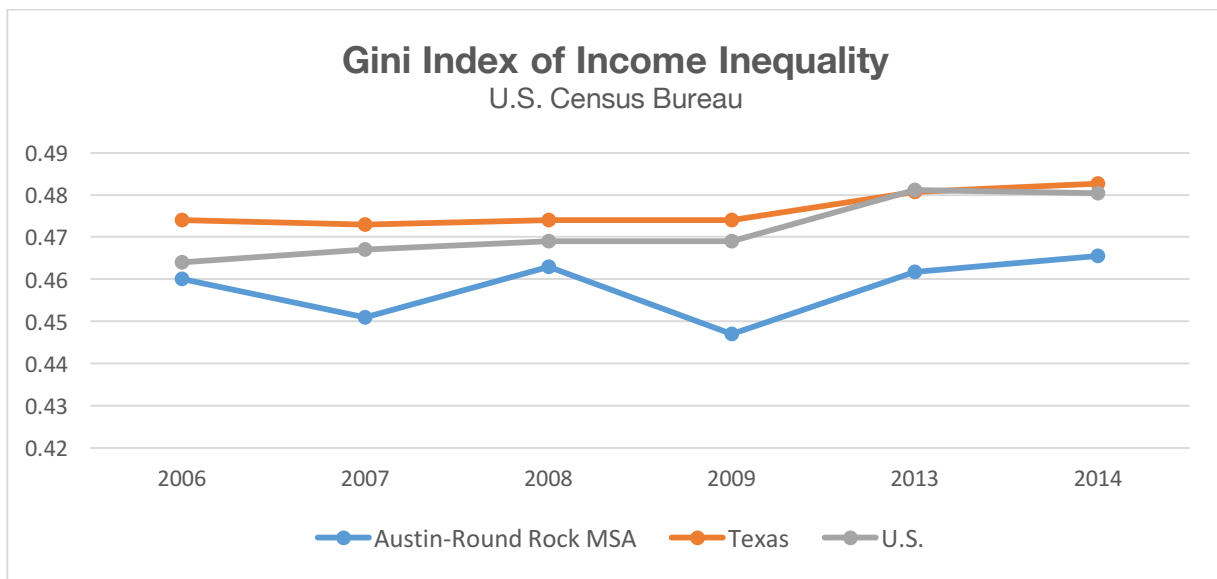
Gap Between Income and Consumption

The Consumer Price Index has increased by 38% since 2000, surpassing the median family income in 2007 at the height of the pre-recession boom. The gap between the CPI and the median family income results in higher levels of poverty, as many people cannot afford necessary household goods such as rent, groceries, and transportation, which in turn leaves little money for families to invest in education, job training, or to improve their quality of life.



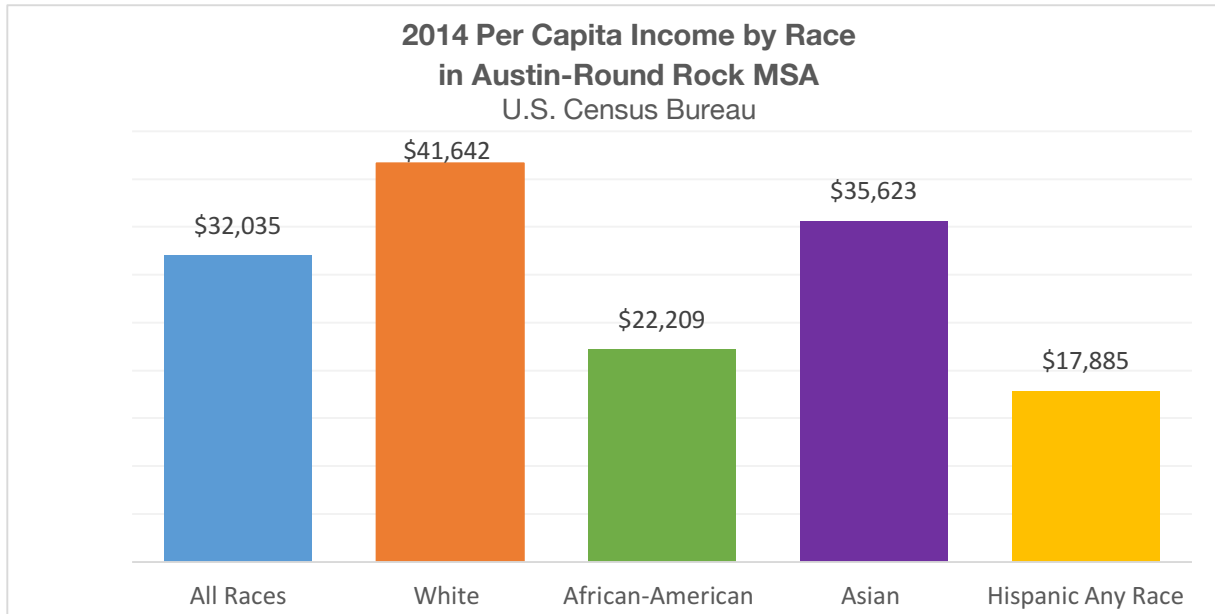
Income Inequality

The Gini Index measures income inequality within a community and can range from 0 to 1. Wealth is perfectly distributed among the community if the coefficient is 0. A measure of 1 indicates perfect inequality and a wide gap between the wealthiest and the poorest families. The Austin-Round Rock MSA has lower levels of income inequality when compared to the State of Texas and the United States. Due to the recession, in 2009 the Gini Index fell to 0.447, but quickly worsened in the recovery. In 2014, income inequality peaked at .465.



Per Capita Income by Race / Ethnicity

In 2014, the Austin-Round Rock per capita income was \$32,000, but with stark racial and ethnic disparities. The per capita income for White non-Hispanic Central Texans was over \$40,000, compared to about \$35,000 among Asians, \$22,000 among African Americans, and \$17,000 among Latinos. This reveals a considerably high racial/ethnic disparity in access to employment in the Austin area.

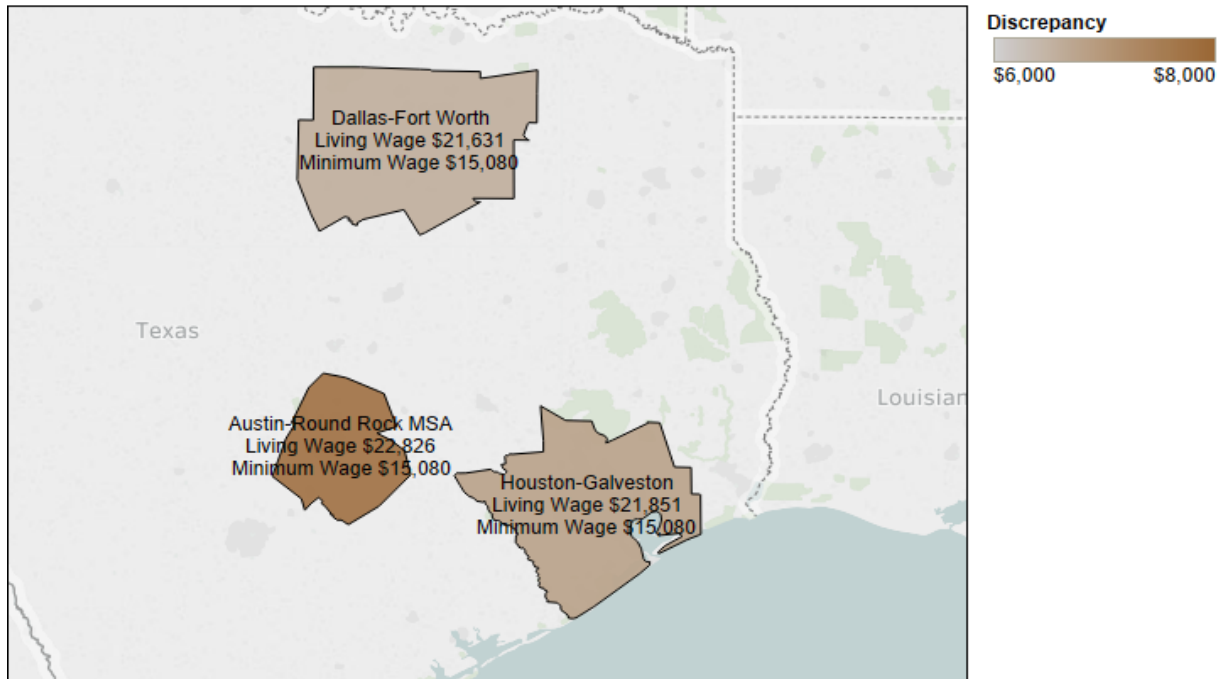


Living Wage in Austin-Round Rock MSA

Austin-Round Rock MSA is one of the fastest growing regions in the nation and has become increasingly unaffordable to the minimum wage worker. The minimum wage in Texas (\$7.25/hour) does not amount to the minimum cost of living (\$10.25/hour) for a single adult with no children. Given the Austin area’s consistently high cost of living, driven by expenses such as housing, health care, and transportation, it is increasingly difficult for single-earners to earn income sufficient to support a middle-class standard of living and become financially independent. Recognizing this problem, in 2015 the City of Austin approved a minimum wage hike to \$13.00/hour for City public employees and contract hires. However, the Texas Legislature prohibits municipalities from setting private wages above the federal minimum.

Full-Time Annual Minimum Wage Compared to Minimum Cost of Living for a Single Adult in 2014

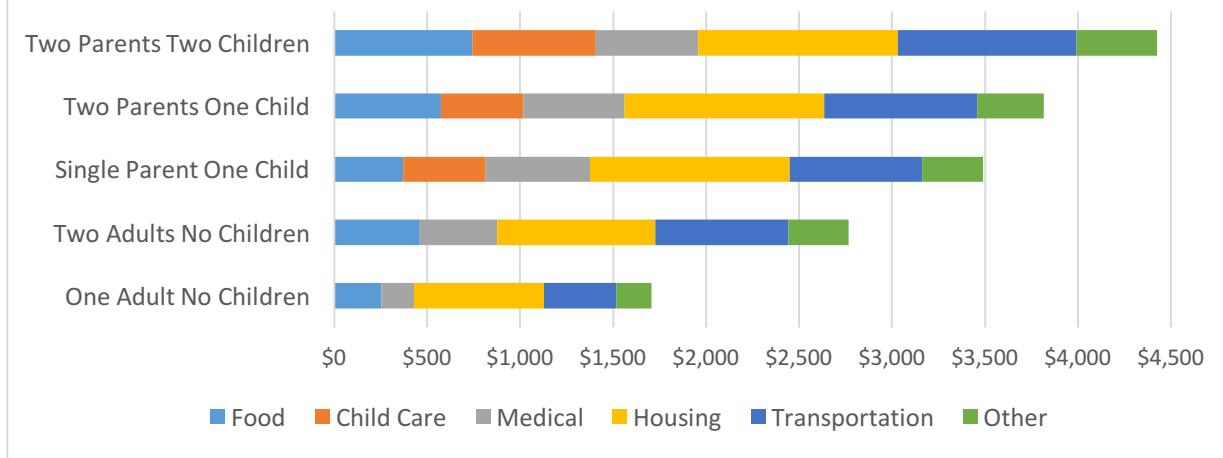
Source: Glasmeier, Amy K. & MIT



The cost of child care significantly increases a family’s monthly expenses. This high cost of living squeezes families with children. Single parent families with children face the greatest challenge in maintaining a living wage, which is more than double the minimum hourly wage in Texas.

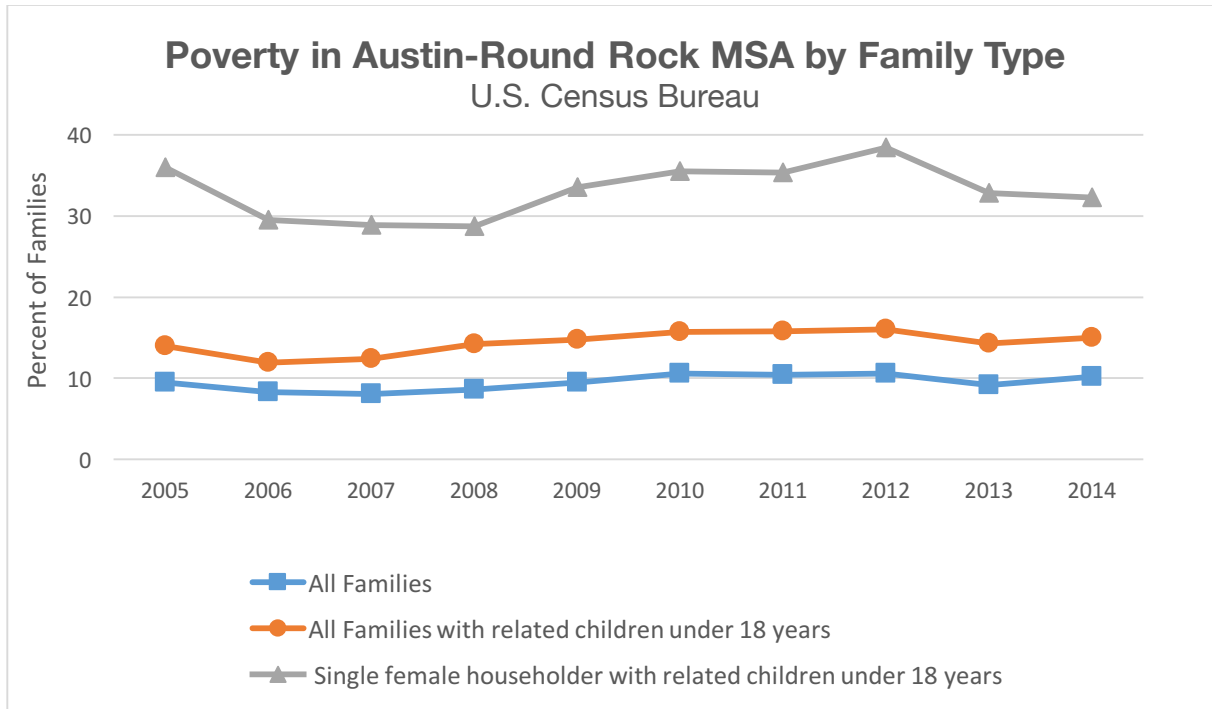
**2014 Living Wage Calculation: Monthly Expenses
Austin-Round Rock MSA**

Glasmeier, Amy K. & MIT



Family Poverty

One-third of Austin area single mothers and their children live in poverty, as reported by the U.S. Census Bureau. Overall, the family poverty rate in the Austin-Round Rock MSA has remained at or near 10% since 2005.

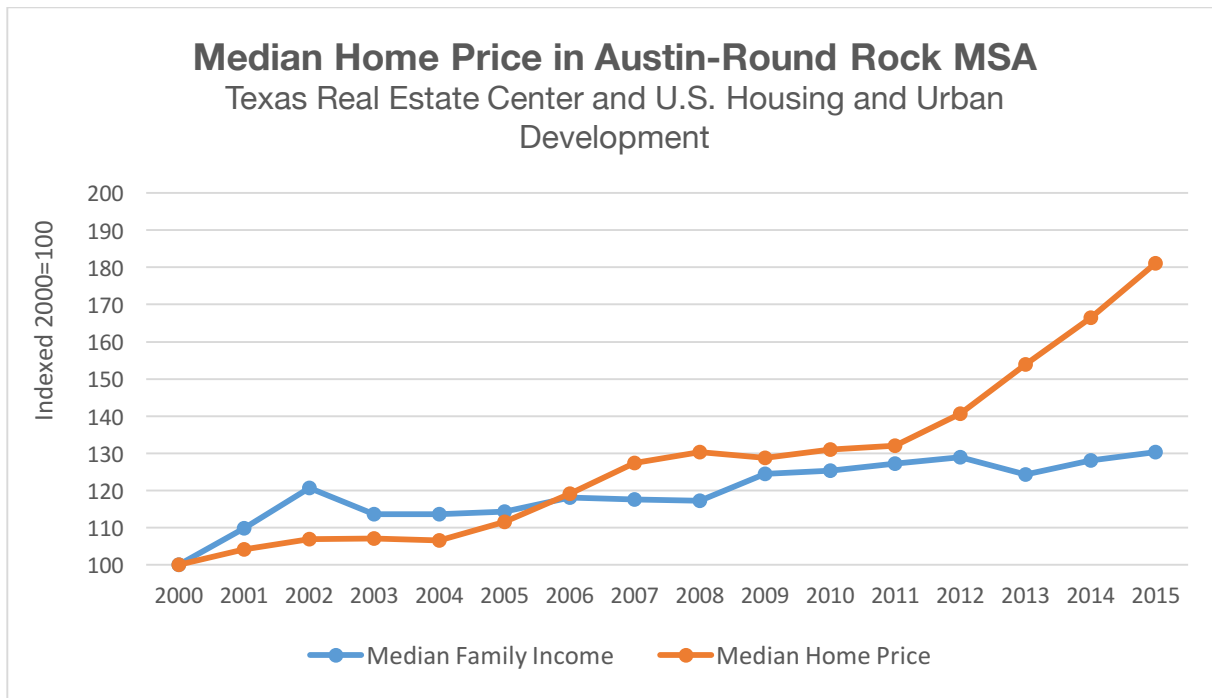


Housing: Ownership

Home ownership traditionally signifies economic stability and is also a key driver of land-use patterns. In addition, opportunities for home ownership have a great deal of symbolic power for communities and emotional impact on residents. The security of home ownership allows people to feel more productive and able to change their communities.

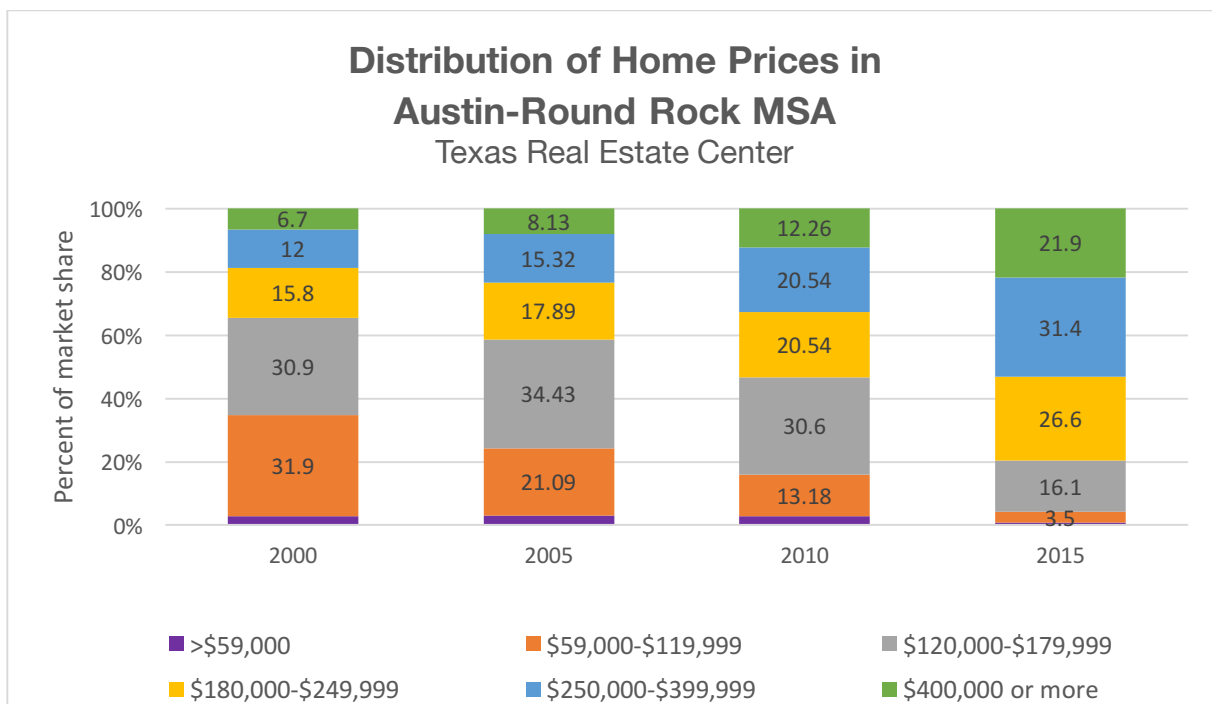
Median Home Price

The Austin area has traditionally been comprised of a mix of people, representing a range of income levels that offered homeownership and rental opportunities at affordable rates. Today, many residents who have lived in the community for generations are finding that they cannot afford to purchase a home in the Austin-Round Rock MSA. As one of the fastest growing metropolitan areas in the nation, Austin-Round Rock MSA’s median home price reached an all-time high of \$261,700 in 2015, 80% higher than the market demand in 2000. Median home price surpassed the median family income for the region in 2006 and skyrocketed in 2011, making home ownership difficult for most people in the region.



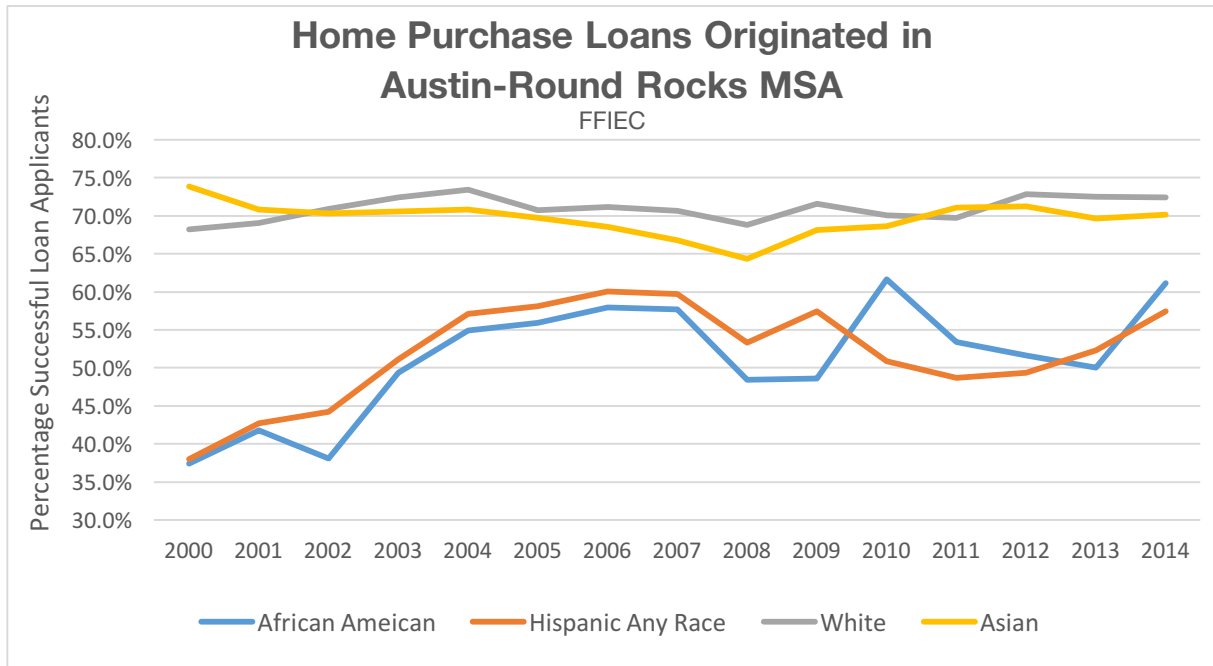
Distribution of Home Prices

Homes over \$250,000 made up more than 50% of the current market share in 2015. More affordable homes (under \$120,000) have declined by 30% since 2000, making affordable home ownership even more difficult.



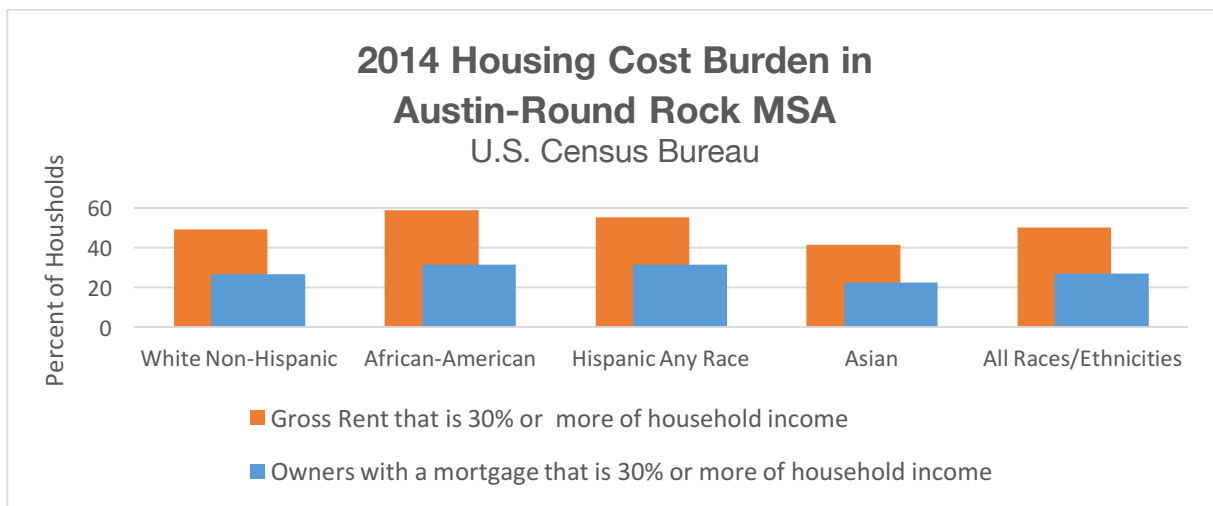
Home Loans

In 2014, about 60% of African Americans and Hispanics that applied for a conventional home purchase loan had success. While this is a 30% increase from 2000, there remains a 15-point gap in the success rate between them and White home loan applicants.



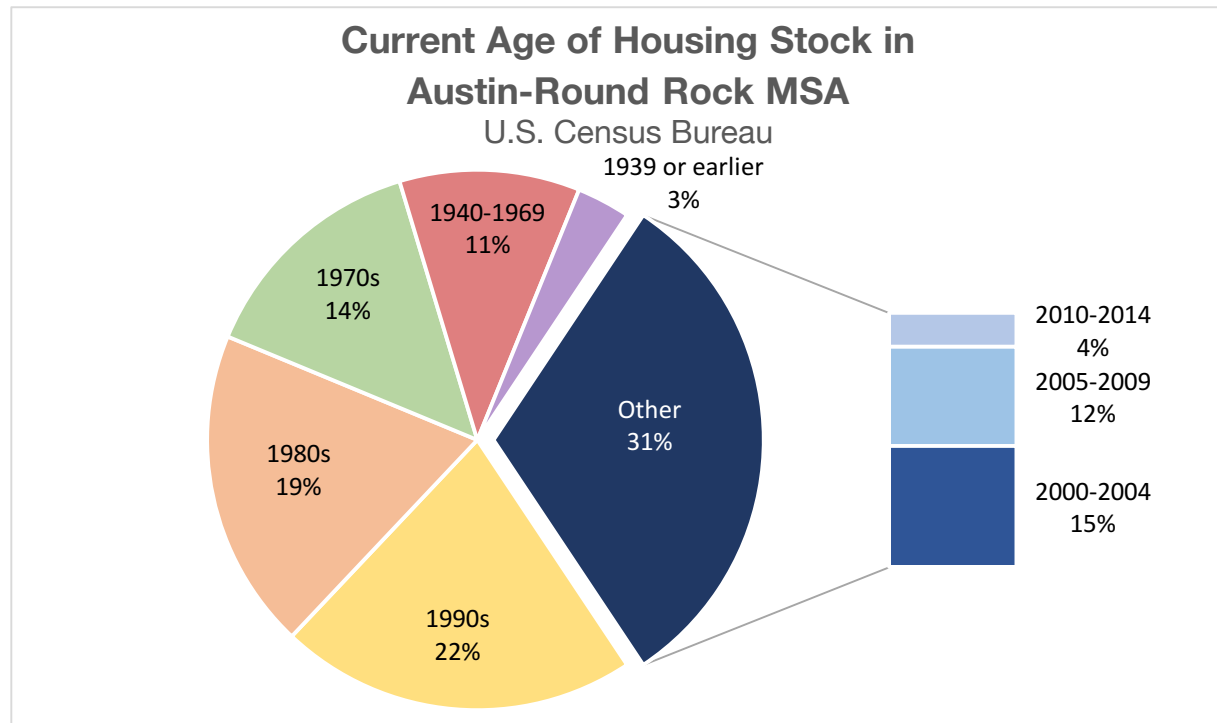
Owning Cost Burden

As of 2014, 26.9% of home owners in the Austin-Round Rock MSA spent more than 30% of their gross income on housing costs. High housing costs can create financial distress for households. A lack of disposable income limits quality of life choices. Hispanics and African Americans had the highest housing cost burden (each at 32%).



Age of Housing Stock

The growing popularity of Central Texas as a premiere destination has led to more owned homes being built in the past 15 years than any other decade. The majority of the housing stock built after 2000 was constructed between 2000 and 2004. The proportion of homes built before 1980 still accounts for 27% of the owned housing stock. Older homes tend to be less energy-efficient, which brings its own set of challenges.

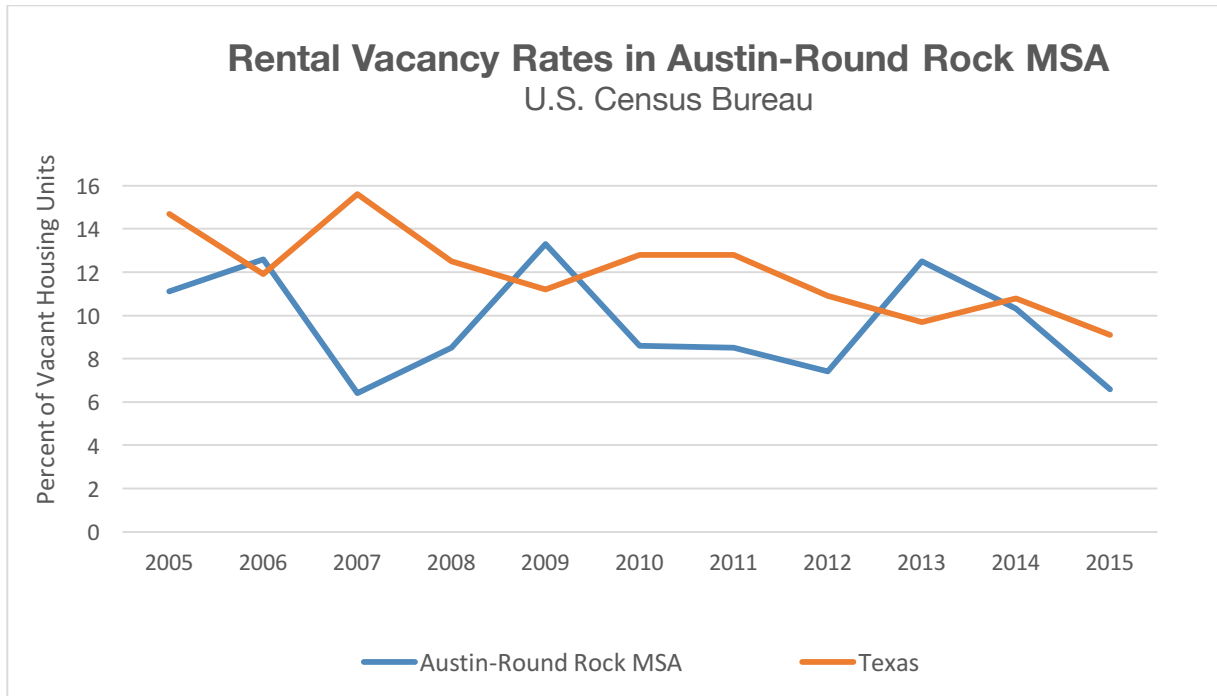


Housing: Rental

While home ownership has both practical and symbolic significance as a sign of community stability and prosperity, rental units meet the bulk of the region’s need for affordable housing, especially at the lowest income levels. The share of Austin area residents who rent rather than own their homes has traditionally been high compared to other urban areas.

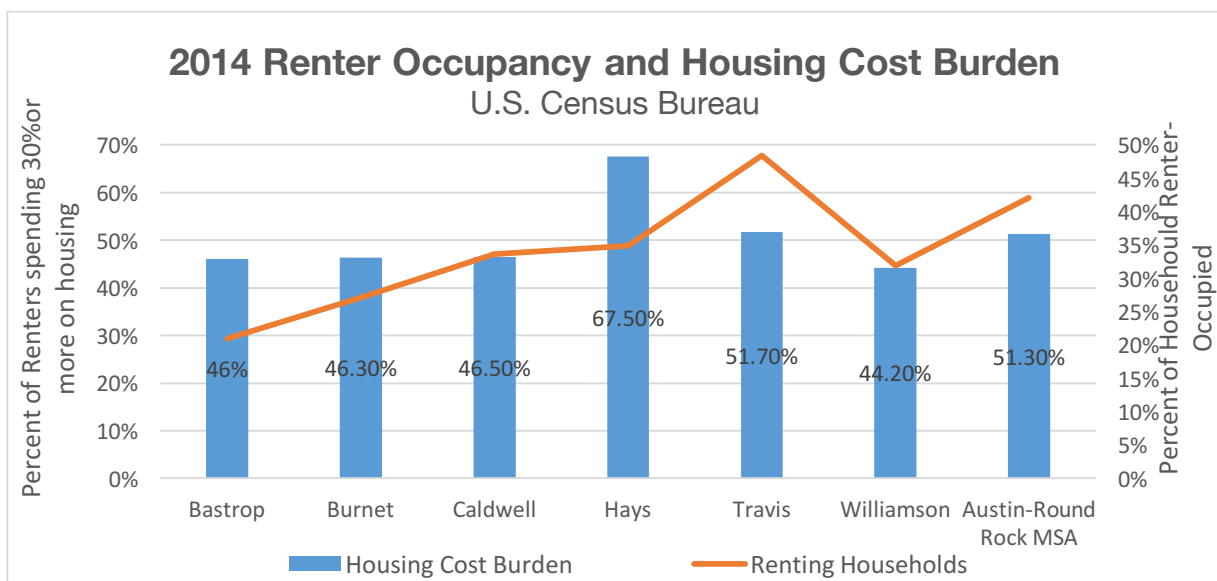
Rental Vacancy Rates

The most recent Census Housing Vacancy and Homeownership Survey data shows that there is only a 6.6% vacancy of rental housing units in the Austin-Round Rock MSA, the lowest since 2007. This trend is likely to continue, given the booming popularity of the region.

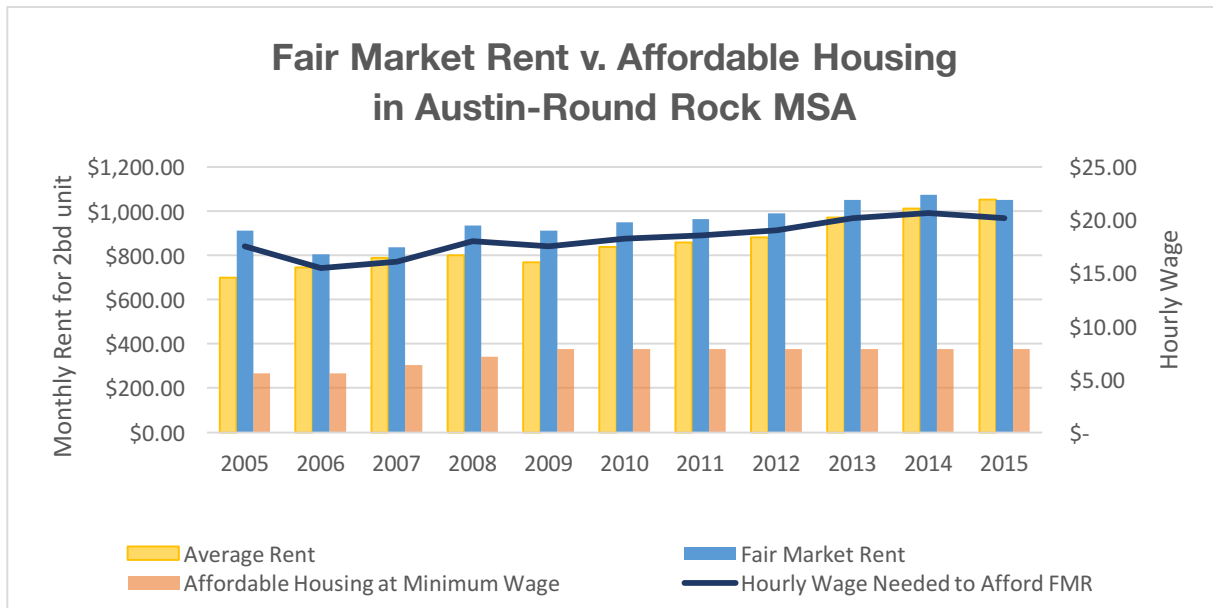


Renting Cost Burden

The shortage in rental units in Central Texas leads to increased prices and crowds out some residents. According to the most recent U.S. Census American Community Survey, in 2014 about 45% of all households are renter-occupied in the Austin-Round Rock MSA. Moreover, half of renter-occupied households spend 30% or more of their gross income on rent. Hays County has the highest housing cost burden, with nearly 70% of renters spending 30% or more of their income on housing costs.

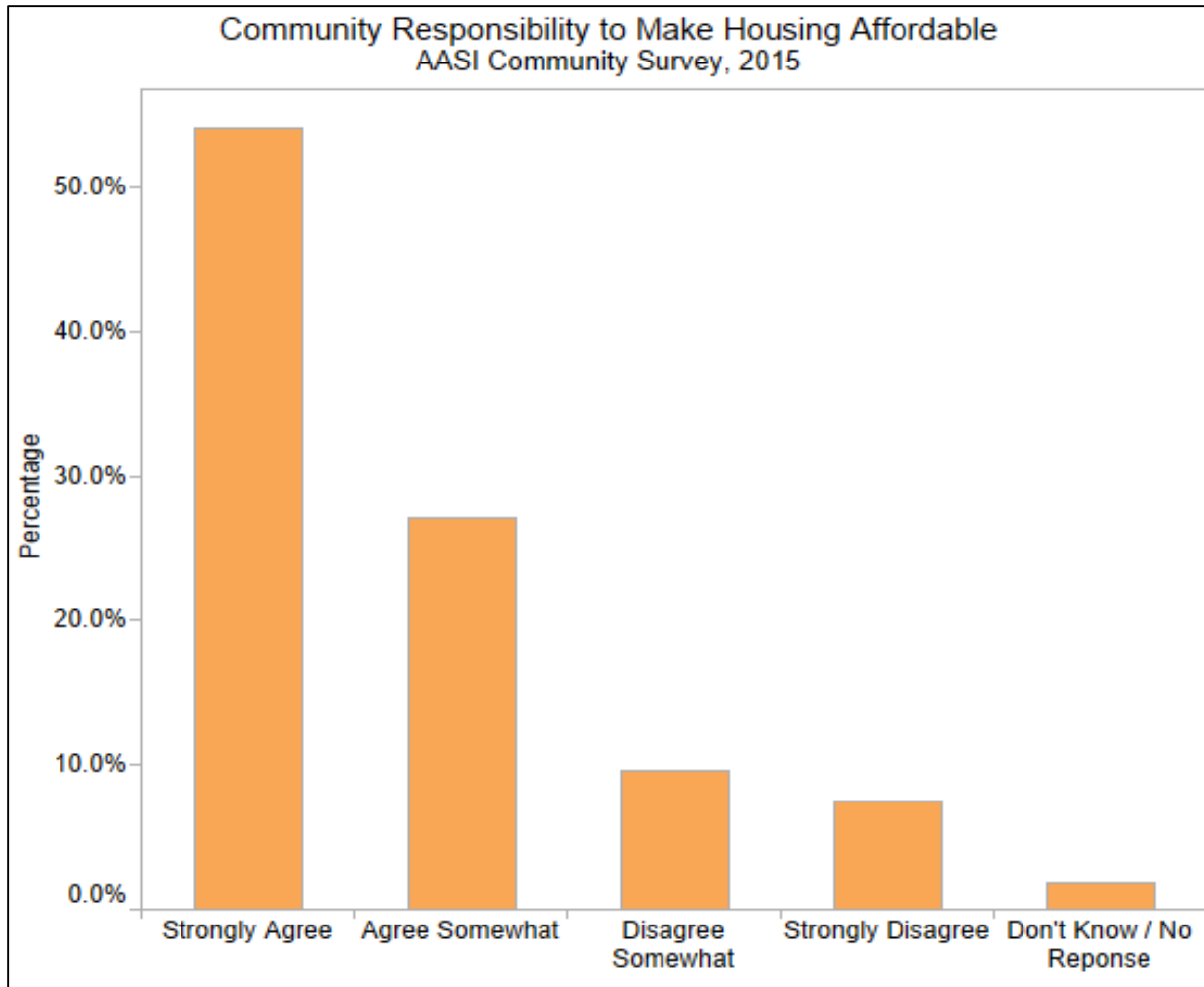


Until 2015, the average monthly rent in the Austin-Round Rock MSA for a 2 bedroom/1 bath rental unit traditionally trended below the U.S. Department of Housing and Urban Development Fair Market Rent benchmark. In 2015, the average monthly rent slightly exceeded the fair market rent of \$1,050 in the Austin-Round Rock MSA by \$3.00. To afford the rental unit without experiencing a housing cost burden, an individual must earn approximately \$20.00/hour. This hourly wage is well above the minimum wage of \$7.25/hour. A modest two-bedroom rental is increasingly out of range for regional residents.



Perception of Affordable Housing

In 2015, as in 2010 and 2008, more than 50% of Austin area survey respondents believe the community has a responsibility to make sure housing is more affordable for median income workers.

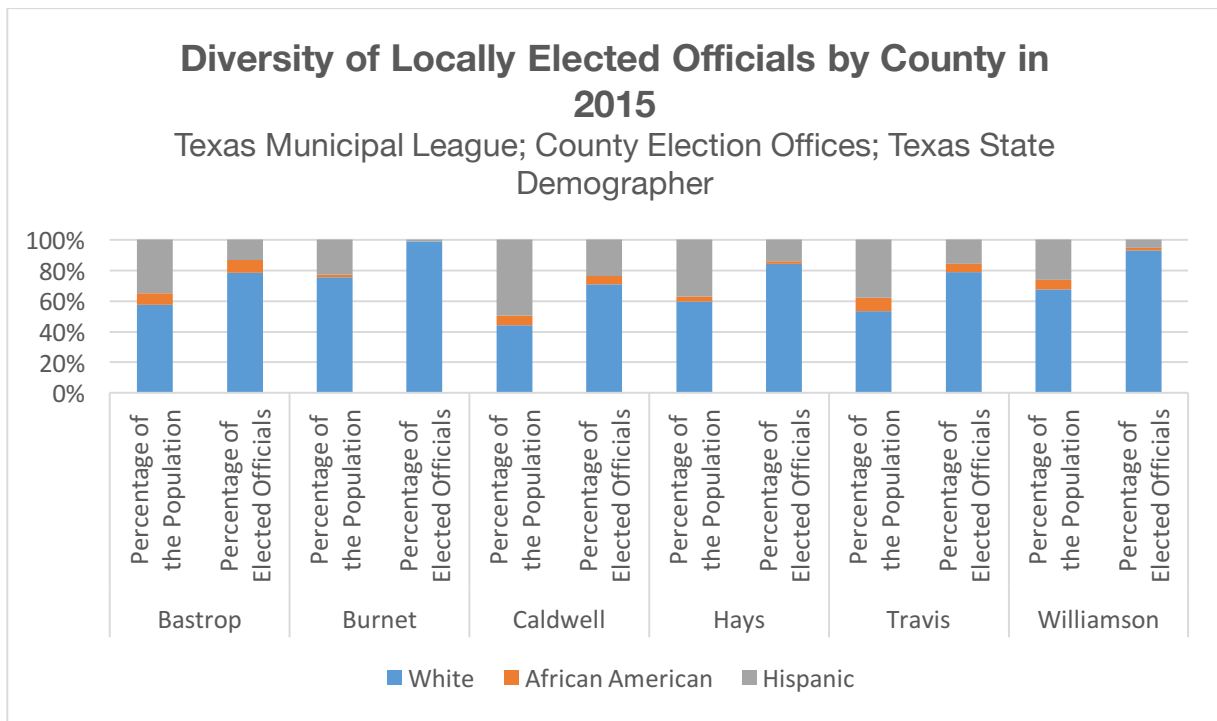
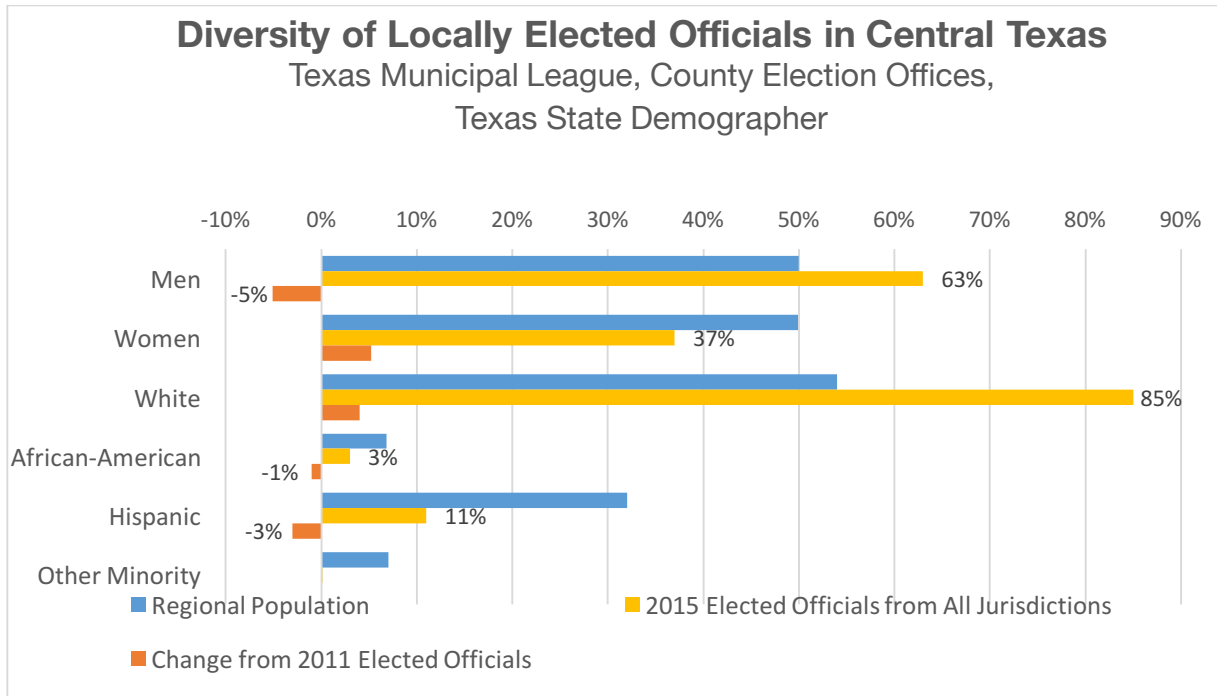


Diversity of Leadership

Embodied within equity and engagement is the trust that elected leaders fairly reflect all the constituents whom they represent, regardless of the similarities or dissimilarities between them. Measuring efficacy of leadership is difficult and can often only be served through qualitative assessments of how values are shared and exemplified through leadership and action.

Diversity of Elected Officials

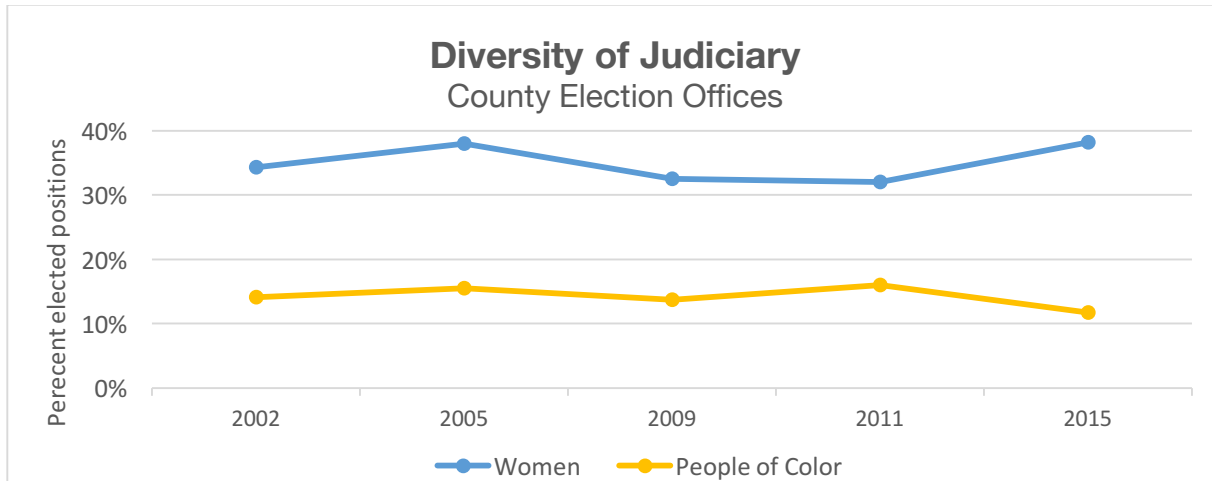
Race and gender diversity in elected leadership shows the presence of diverse voices in civic life and the breadth of a community’s political decision-making capacity. In 2015, 63% of elected officials were men, 85% were White, and 54% were White men. Yet, White men make up only 27% of the total population in Central Texas. Since the past election cycle in 2011, African American and Hispanic elected leadership decreased. There was only one elected official that was of other racial/ethnic background, thus comprising less than one percent (0.15%) of the local leadership among elected officials.



Elected officials within Central Texas do not adequately reflect the constituent base that they represent. In 2015, ninety-nine percent of elected officials in Burnet County were White, while Hispanics made up 22% of the population. Caldwell County enjoys the most diverse leadership among Central Texas counties, with 19% of elected officials being people of color.

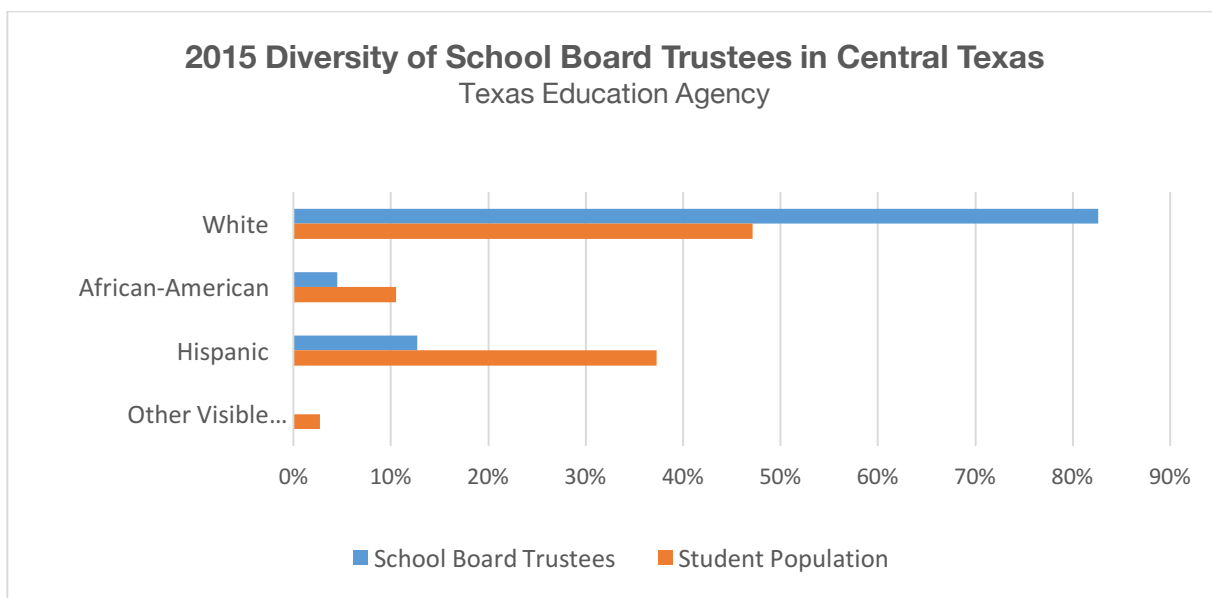
Diversity of Judiciary

In 2015, only 12% of the elected judiciary were people of color, resulting in the lowest diversity numbers in over a decade. More than one-third of the elected judiciary is female, reflecting a six-point increase from 2011. However, this percentage of female judiciaries does not represent any change from a decade ago in 2005.

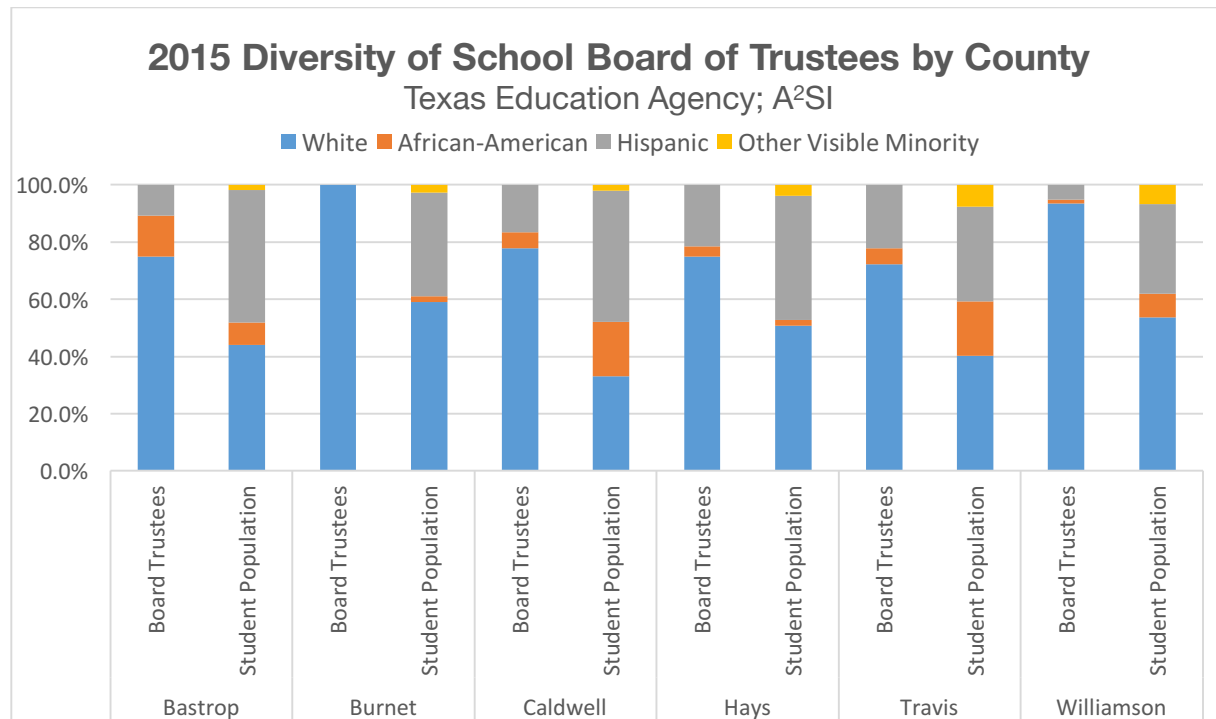


Diversity of School Board Trustees

While the student population of the public school districts in Central Texas has increasingly become more racially/ethnically diverse, the make-up of trustees on the school boards does not reflect this diversity. In 2015, over 80% of the School Board Trustees were White, whereas White students only made up about 45% of the total student population. Though this does not speak directly to the quality of representation, few environments are demographically changing as rapidly as the public school system, thus calling for rapidly adapting leadership.



In 2015, the least diverse school board was Burnet County, with a Board of Trustees that is 100% White, despite a student population that is 35% Hispanic.

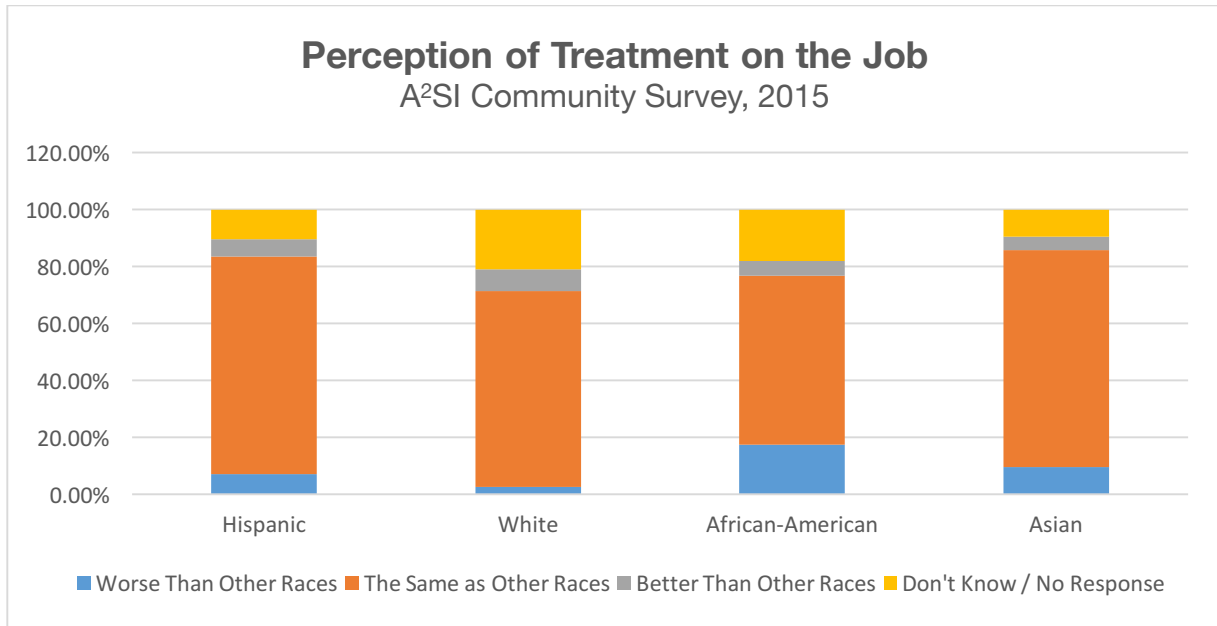


Race Relations

The history of the region is shaped by race and ethnic divisions which are most clearly visible in land use, education, public safety, and other aspects. Efforts are directed at understanding why such inequities persist within the community and how to resolve them.

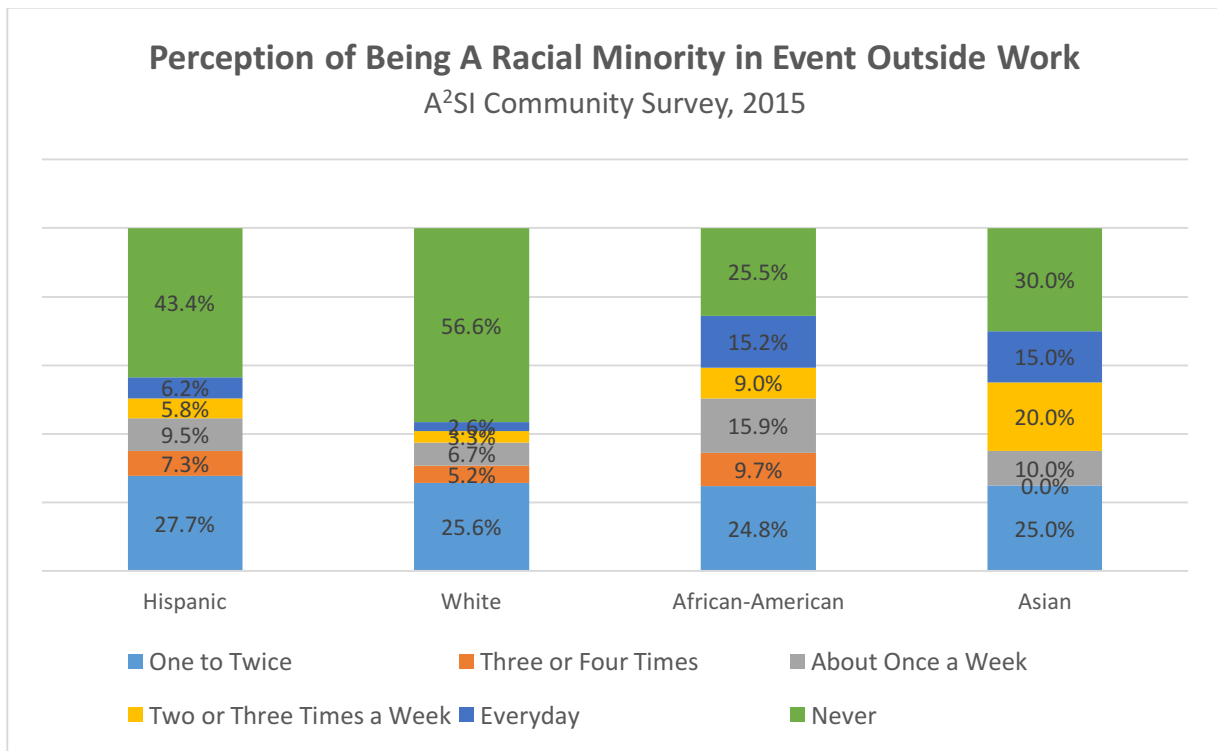
Discrimination on the Job

The perception of being treated “worse than people of other races” among African-American respondents of the survey had been decreasing between 2004 – 2010, from 20% to 5%. In 2015 however, this perception surged to 17.33%. The same perception upon Hispanic respondents has been stagnant over the past 10 years, which is below 10%. This is possibly evident of race relations that are not improving, particularly among the African-American community.



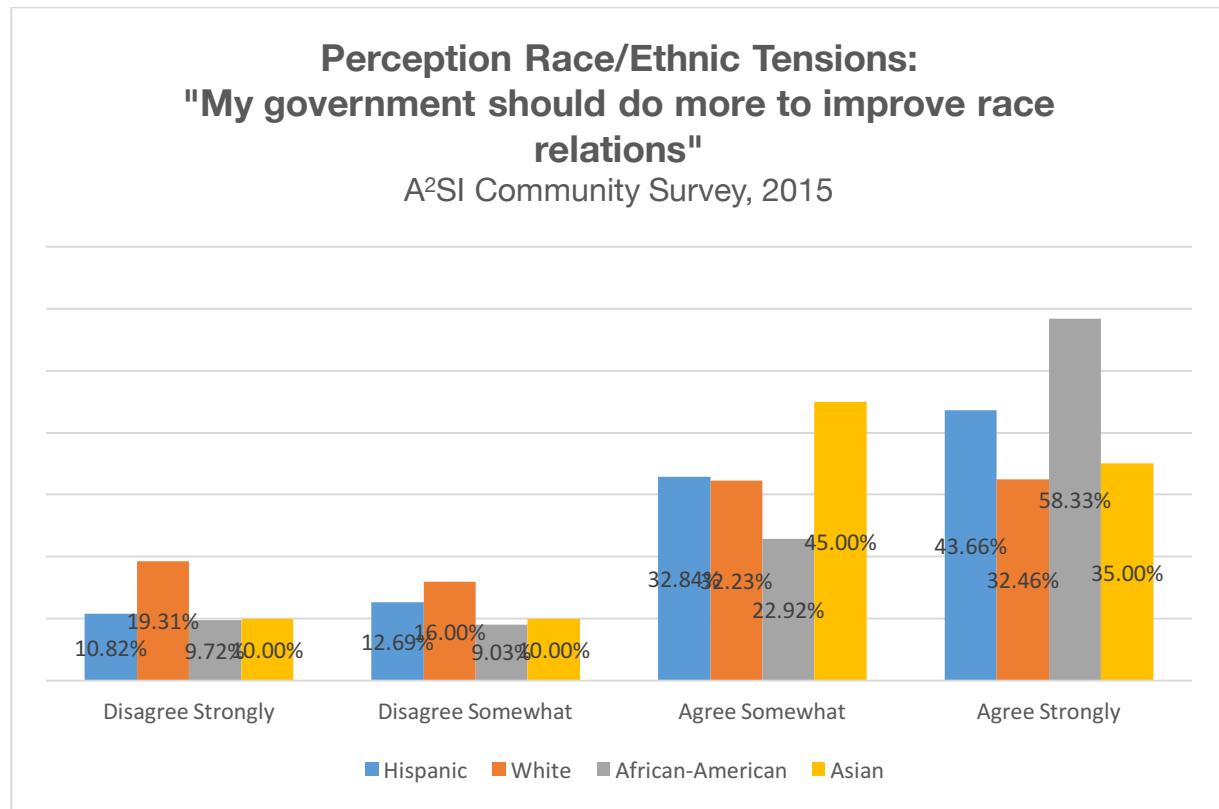
Interacting with Other Races

Racially homogenous non-work events do not signify healthy race relations. In 2015, 43.6% and 56.6% of Hispanic and White survey respondents indicated that they've never attended an event outside of work in the past 30 days where they were not part of the majority race/ethnicity in attendance.



Racial Tension: Government Role

Government plays an important role in decreasing racial tensions according to the A²SI Survey respondents. Agreement is particularly evident among people of color where 58% of African Americans and 43.7% of Hispanics believe this strongly. The percentage of White and African-Americans who strongly agree that the government should do more to improve race relations have increased since 2010, where around 12% and 8% more White and African-American respondents strongly agree with this sentiment.

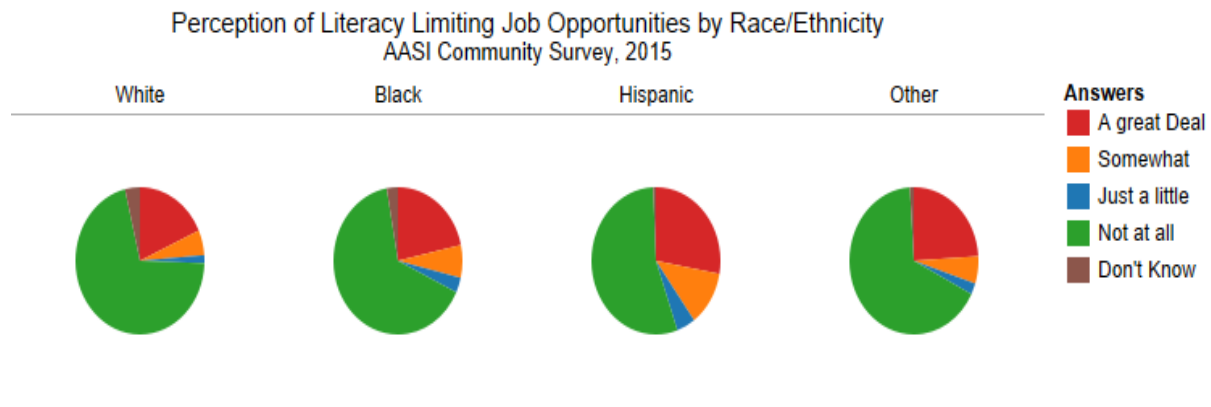


English Proficiency

Literacy is one of the primary benefits of education and a significant equity concern in that the lack of basic literacy can diminish or prevent access to economic opportunities or full participation in one’s broader community.

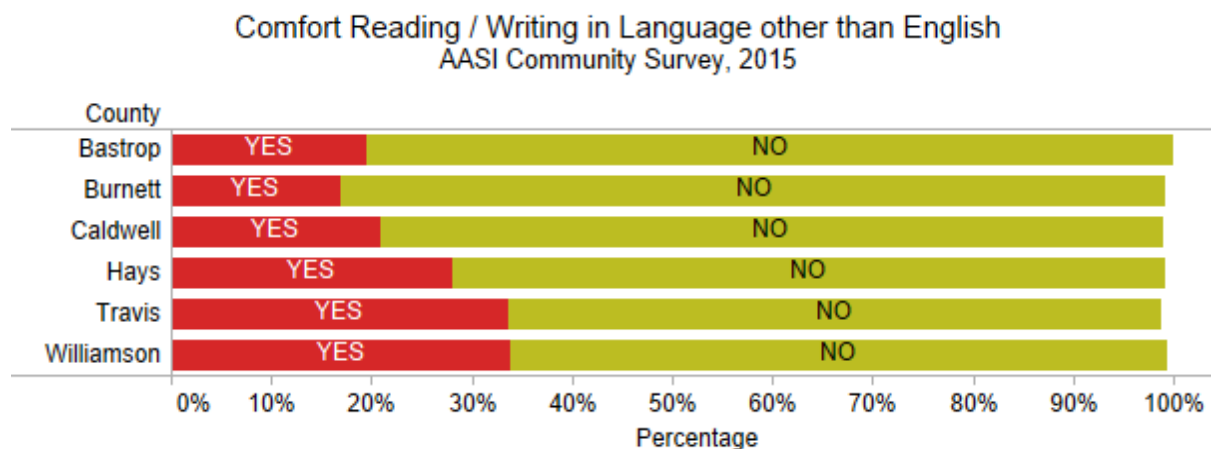
Perception of Literacy Limiting Job Opportunities

Racial disparity is also supported by the perception among Austin area residents that language barriers limit access to jobs for which they otherwise feel qualified. Approximately 27% of Austin area residents feel “somewhat” or “a great deal” limited by their lack of English language skills in their ability to get a job. This perception is stronger among people of color, where nearly 40% of Hispanic and 29% of Black respondents report this, compared to 23% of White respondents.



Comfort Using Language Other Than English

There has been no improvement in the percentage of Central Texans who are comfortable reading and writing in a language other than English. In 2015 as in 2010, around 25% of Central Texans are comfortable reading and writing in a language other than English. Compared to the regional average, this is true for a larger share of residents in Travis and Williamson Counties.



Summary and Conclusion

Fairness, justice, equal opportunity, and equality are key tenets of a sustainable society. Yet, indicators of social equity receive inadequate attention relative to their importance of a just and sustainable society. Social equity means redressing injustices and remediating damages that were previously incurred, fully incorporating all segments of the community in the political process, and establishing measures to prevent future inequities from occurring. As the cost of living rises in the Austin area, attention must be paid to how the burdens and benefits of different policy actions are distributed throughout the region. Efforts that expand opportunity and promote equal access to public services, provide equal service quality, ensure procedural fairness, and strive for equal opportunity in areas of education, health, and employment are key to a sustainable Austin area.

Appendix A: Glossary

Affordable Housing – Housing that costs no more than 30% of a household’s gross monthly income.

Consumer Price Index – The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

Conventional Home Purchase Loan – A conventional mortgage is not backed by any federal agency, and can be obtained from just about any lender, such as a mortgage company or a bank.

Cost of Living – The amount of money needed to sustain a certain level of living, including basic expenses such as housing, food, taxes, and healthcare. Cost of living is often used when comparing how expensive it is to live in one city versus another.

Diversity – Diversity is differences in racial and ethnic, socioeconomic, geographic, and academic/professional backgrounds. This includes people with different opinions, backgrounds (degrees and social experience), religious beliefs, political beliefs, sexual orientations, heritage, and life experience.

Fair Market Rent – Fair market rents are gross rent estimates that include the cost of rent and all utilities except telephone service. The current definition used for most areas is the 40th percentile rent, the dollar amount below which 40% of the standard quality rental housing units are rented.

Gini Index – The Gini index, or index of income concentration, is a statistical measure of income inequality ranging from 0 to 1. A measure of 1 indicates perfect inequality, i.e., one household having all the income and rest having none. A measure of 0 indicates perfect equality, i.e., all households having an equal share of income.

Housing Cost Burden – According to the Department of Housing and Urban Development, residents should not pay more than 30% of their income towards housing, those families who pay more than 30 percent of their gross monthly income for housing are considered cost burdened. People whose housing costs exceed this threshold of affordability are likely to struggle to pay for other basic needs, forcing difficult trade-offs. Individuals and families who are cost-burdened may drop health care coverage, select less expensive child care arrangements, or skip meals to save on costs, which may result in poorer outcomes in other areas of well-being.

Housing Wage – The hourly wage needed to earn in order to pay no more than 30% of your income on rent.

Living wage – The living wage is defined as the wage needed to cover basic family expenses (basic needs budget) plus all relevant taxes. The living wage calculation does not include publicly provided income or housing assistance. Values are reported in 2014 dollars.

Location Affordability Index – The Location Affordability Index is a calculation designed by the Department of Housing and Urban Development (HUD) in order to estimate the costs of housing and transportation across the country. Data is provided on the percentage of household income

spent on housing, transportation, and the combination of the two. Separate values are also offered for owner and renter households.

Median Family Income – The median family income divides the income distribution into two equal groups, one having incomes above the median, and other having incomes below the median.

Minimum Wage – Minimum wage is the minimum amount of compensation an employee must receive for performing labor. Minimum wages are typically established by contract or legislation by the government. As such, it is illegal to pay an employee less than the minimum wage.

Poverty – If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family (and every individual in it) or unrelated individual is considered in poverty.

Visible minorities – Persons who are non-Caucasian in race or non-white in color.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Social Equity	Cost of Living	Consumer Price Index and Median Family Income Austin-Round Rock MSA	U.S. Bureau of Labor Statistics; Federal Financial Institutions Examination Council	Bureau of Labor Statistics, CPI Urban Consumers, Series Id: CUSR0000SA0, http://www.bls.gov/cpi/ . Accessed 27 Oct 2015; Federal Financial Institutions Examination Council, Median Family Income Report. https://www.ffiec.gov/Medianincome.htm . Accessed 27 Oct. 2015
Social Equity	Cost of Living	Gini Index of Income Inequality	U.S. Census Bureau	U.S. Census Bureau American Community Survey 1 year estimates B19083: Gini Index. Accessed 15 Feb 2016.
Social Equity	Cost of Living	2014 Per Capita Income by Race in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau American Community Survey 1 year estimates B19301: Per Capita Income in the Past 12 Months. Accessed 7 Feb 2016.
Social Equity	Cost of Living	Full-Time Annual Minimum Wage Compared to Minimum Cost of Living for a Single Adult	Glasmeier, A. K. & MIT	Glasmeier, Amy K. & MIT, Living Wage Calculator, http://livingwage.mit.edu/metros/12420 . Accessed 20 Oct 2015
Social Equity	Cost of Living	Living Wage Calculation: Monthly Expenses Austin-Round Rock MSA	Glasmeier, A. K. & MIT	Glasmeier, Amy K. & MIT, Living Wage Calculator, http://livingwage.mit.edu/metros/12420 . Accessed 20 Oct 2015
Social Equity	Cost of Living	Poverty in Austin-Round Rock MSA by Family Type	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 1 yr estimates S1702: Poverty Status in the Past 12 months of families. Accessed 22 Oct 2015
Social Equity	Housing: Ownership	Median Home Price in Austin-Round Rock MSA	Texas Real Estate Center; U.S. Housing and Urban Development	Texas A&M University Real Estate Center, Housing Activity and Affordability: Home Sales, https://www.recenter.tamu.edu/data/housing-activity/ . Accessed 27 Oct 2015; U.S. Housing and Urban Development, Income Limits, https://www.huduser.gov/portal/datasets/il.html , Accessed 15 Nov 2015.
Social Equity	Housing: Ownership	Distribution of Home Prices in Austin-Round Rock MSA	Texas Real Estate Center	Texas A&M University Real Estate Center, Housing Activity and Affordability: Home Sales, https://www.recenter.tamu.edu/data/housing-activity/ . Accessed 27 Oct 2015

Social Equity	Housing: Ownership	Home Purchase Loans Originated in Austin-Round Rock MSA	Federal Financial Institutions Examination Council	Federal Financial Institutions Examinations Council, Home Mortgage Disclosure Act, FFIEC Census and Demographic Data, https://www.ffiec.gov/Hmda/default.htm . Accessed 20 Oct 2015
Social Equity	Housing: Ownership	2014 Housing Cost Burden in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2014 5 yr estimate DP04: Selected Housing. Accessed 22 Oct 2015
Social Equity	Housing: Ownership	Current Age of Housing Stock in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census, 2013 American Housing Survey, C-01-OOM: General Housing Data Owner-Occupied Units. Accessed. 27 Oct 2015
Social Equity	Housing: Rental	Rental Vacancy Rates in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, People and Households Survey, Housing Vacancies and Homeownership. Table 4a. Rental Vacancy Rates for the 75 Largest Metropolitan Areas. https://www.census.gov/housing/hvs/data/rates.html
Social Equity	Housing: Rental	Renter Occupancy and Housing Cost Burden	U.S. Census Bureau	U.S. Census Bureau, American Community Survey, 2014 5yr estimates, DP04 and S1901: Selected Housing Characteristics. Accessed 20 Oct 2015
Social Equity	Housing: Rental	Fair Market Rent v. Affordable Housing in Austin-Round Rock MSA	U.S. Housing and Urban Development	U.S. Department of Housing and Urban Development, Fair Market Rents, http://www.huduser.gov/portal/datasets/fmr.html . Accessed 30 Oct 2015
Social Equity	Diversity of Leadership	Diversity of Locally Elected Officials in Central Texas	Texas Municipal League; County Election Offices; Texas State Demographer	Texas Municipal League, personal communication with JJ Rocha, 6 Nov 2015; County Municipal Offices, personal communication, 9-13 Nov 2015; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Social Equity	Diversity of Leadership	Diversity of Locally Elected Officials by County	Texas Municipal League; County Election Offices; Texas State Demographer	Texas Municipal League, personal communication with JJ Rocha, 6 Nov 2015; County Municipal Offices, personal communication, 9-13 Nov 2015; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Social Equity	Diversity of Leadership	Diversity of Judiciary	County Election Offices	County Municipal Offices, personal communication, 9-13 Nov 2015
Social Equity	Diversity of Leadership	Diversity of School Board Trustees in Central Texas	Texas Education Agency; Independent School Districts	Teacher Education Agency, State Board of Education Members, http://tea.texas.gov/index4.aspx?id=2147506719 . Accessed 9 Nov 2015; Independent School Districts in Central Texas, personal communication, 9-13 Nov 2015.

Social Equity	Diversity of Leadership	Diversity of School Board Trustees by county	Texas Education Agency; Independent School Districts	Teacher Education Agency, State Board of Education Members, http://tea.texas.gov/index4.aspx?id=2147506719 . Accessed 9 Nov 2015; Independent School Districts in Central Texas, personal communication, 9-13 Nov 2015.
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Civic Engagement

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www.austinindicators.org

Austin Area Sustainability Indicators (2016) – Civic Engagement

Table of Contents

Austin Area Sustainability Indicators (2016) – Civic Engagement	1
Civic Engagement	2
Civic Involvement	2
Philanthropy	2
Philanthropic Foundations	2
Re-Investment of Assets.....	3
Individual Philanthropy	4
Volunteerism	6
Participation in the Arts	7
Non-Profit Arts Organizations	7
Arts Sector Employment	8
Earnings from Arts Sector.....	8
Youth Involvement in Arts.....	9
Entertainment Opportunities.....	10
Civic Participation.....	11
Political Participation	11
Registered Voters	11
Voter Turnout.....	12
Informed and Engaged	13
Community Participation	14
Social Connectedness.....	16
Neighborliness.....	16
Summary and Conclusion.....	18
Appendix A: Glossary	19
Appendix B: Bibliography	20

Civic Engagement

Civic engagement is broadly defined as individual and collective actions designed to identify and address issues of public concern. Civic engagement reflects volunteerism and engagement in community, philanthropic activity, access to culture and the arts, and political participation. Voter turnout, newspaper readership, and membership in societies and social clubs have long been indicative of healthy civic engagement. When levels of political participation, civic involvement, and social connectedness are relatively high, a region enjoys the benefits of civic health.

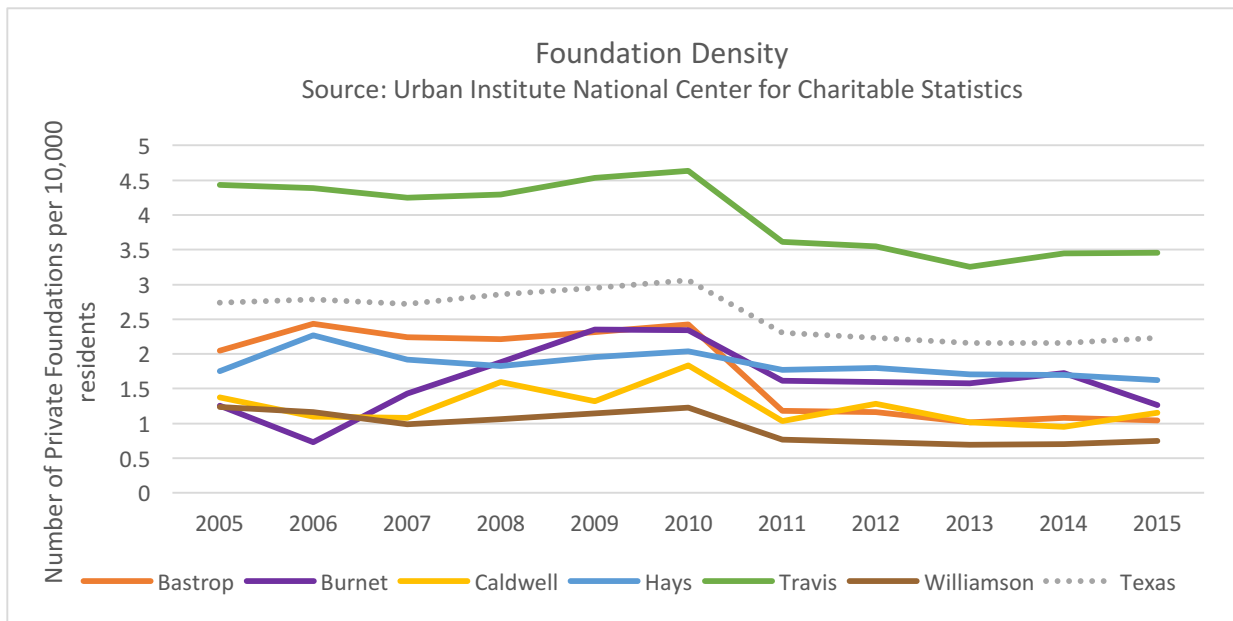
Civic Involvement

Civic involvement encompasses a variety of activities outside the sphere of government and politics, including philanthropic activity, donating to charities, volunteering, and belonging to community organizations. Engagement in the arts and other cultural opportunities also fall within an indicator of civic involvement.

Philanthropy

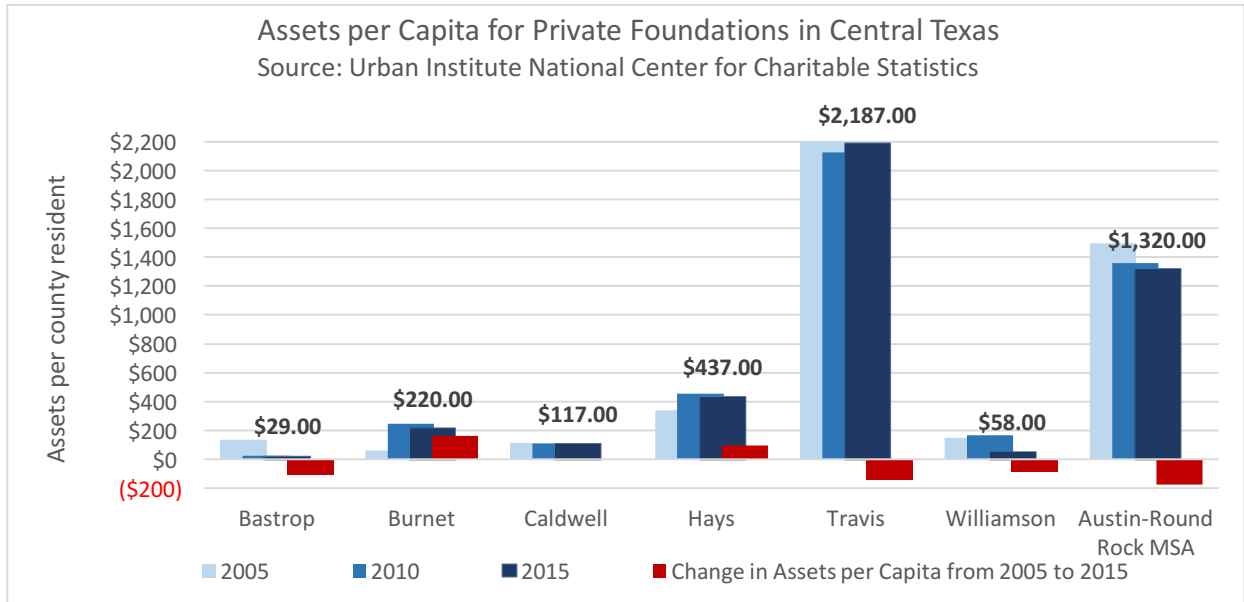
Philanthropic Foundations

The presence and contribution of foundations indicates the degree to which these institutions represent the capacity for civic leadership. The density of foundations (number per capita) indicates the size of the philanthropic sector in Central Texas. All counties, with the exception of Travis County, have lower foundation densities than the Statewide 2.2 foundations per 10,000 residents. Williamson County has the lowest number of foundations per 10,000 residents at 0.75. All counties seemed to reach a peak foundation density in 2010, and then lowered dramatically the following year in 2011. Since the Great Recession, foundation density has stayed relatively flat and most are at levels lower than a decade ago.



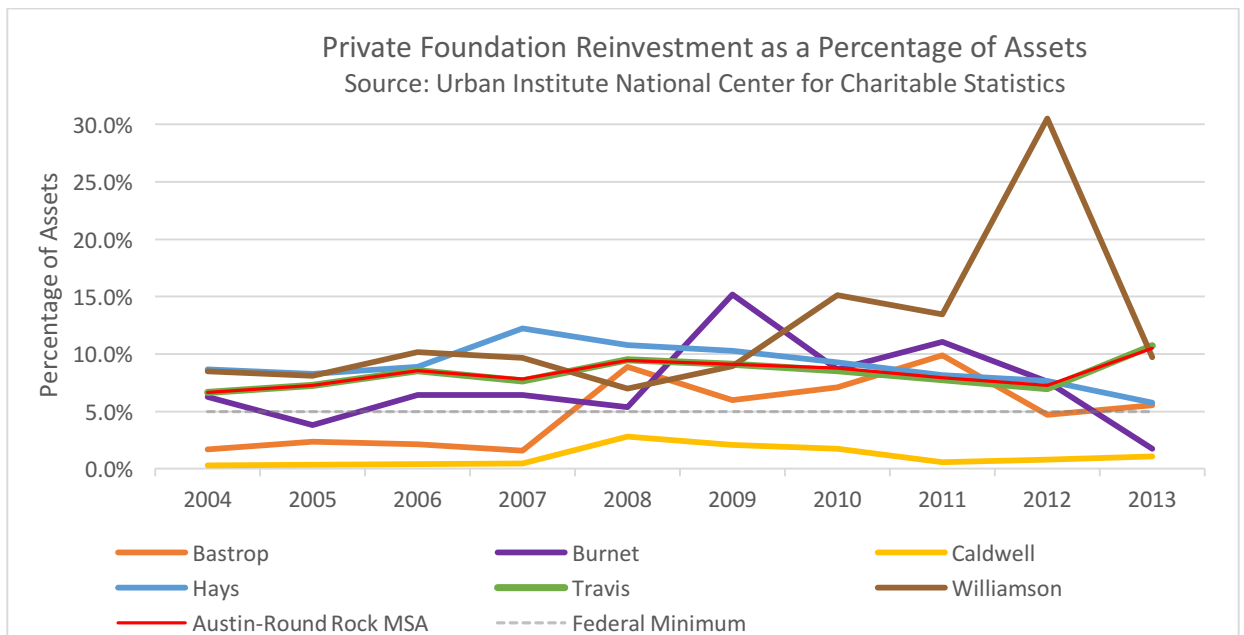
With the decrease in foundations in the region, we have also seen a decrease in the giving potential in Travis, Williamson, and Bastrop counties, and an increase in Hays and Burnet counties, as reported by assets per capita. Caldwell County’s assets per capita have remained flat. Bastrop and Williamson

counties have the lowest giving potential, with \$29 and \$58 per person, respectively. Travis County has seen the greatest loss of assets per capita since 2005.

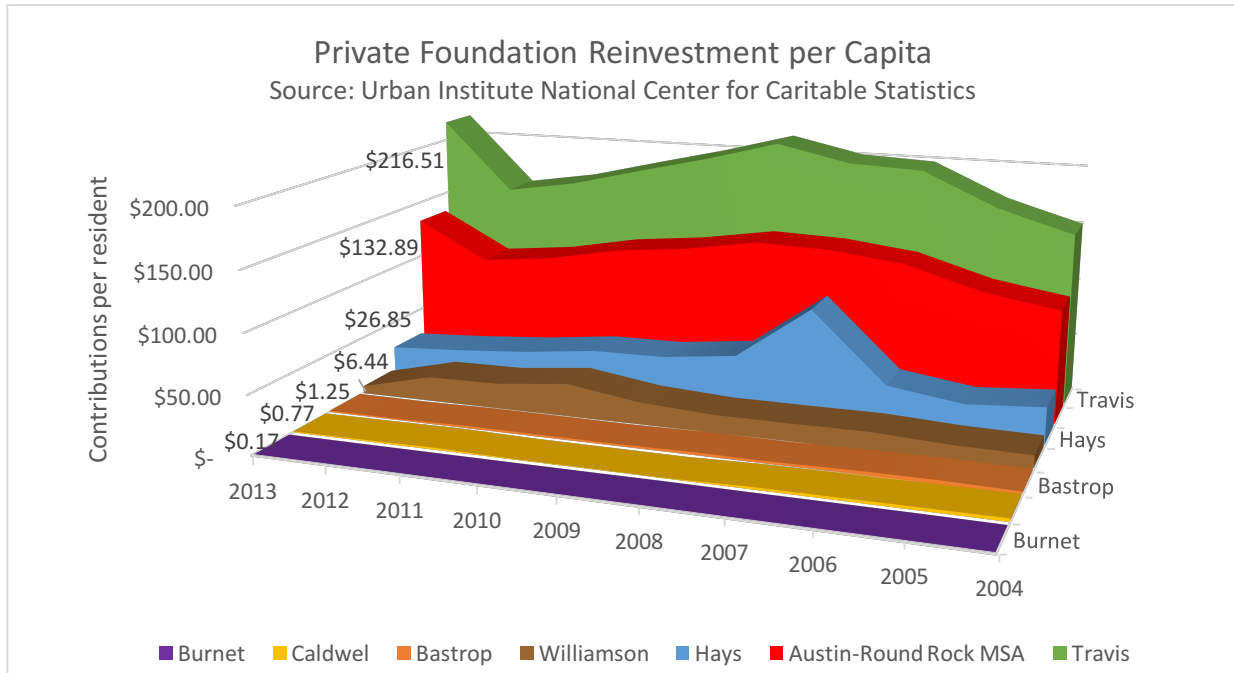


Re-Investment of Assets

While Austin-Round Rock MSA foundations reported assets of \$1,262 per capita in 2013, during the same year they reinvested \$132 per capita in the form of grants, contributions and gifts (or 10% percent of the MSA foundations' collective assets). With the exception of Burnet and Caldwell counties, all Austin area counties in 2013 were able to meet or exceed the federal minimum requirement of contributing 5 percent of their assets toward charitable purposes annually.

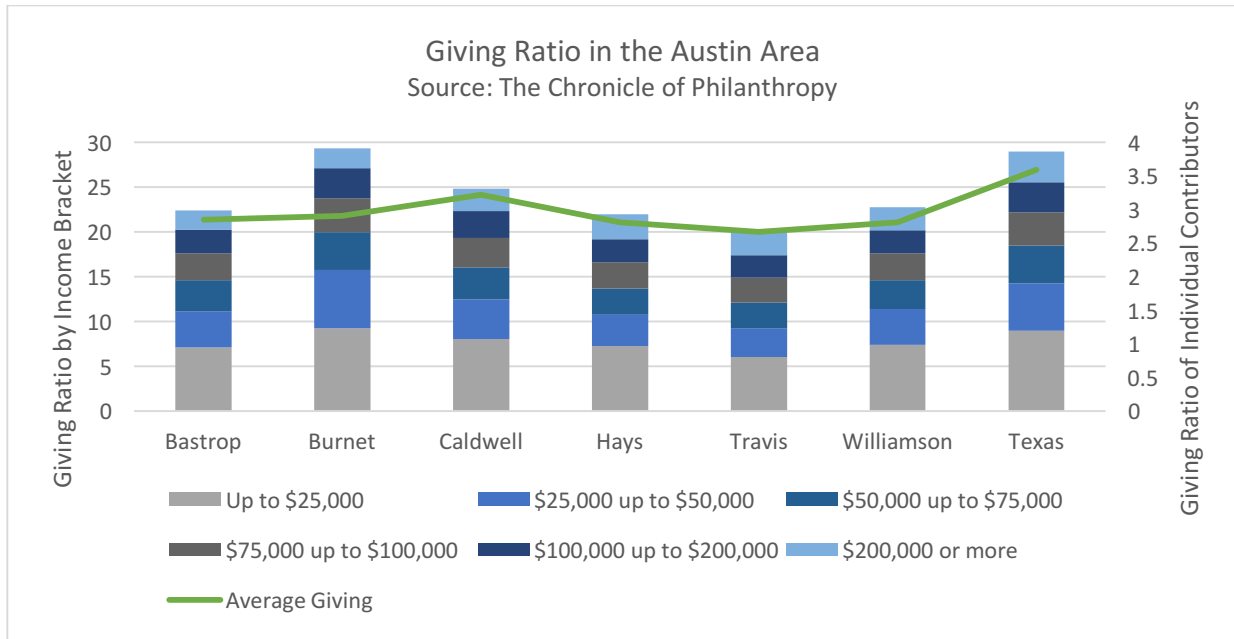


Among Central Texas counties, Travis leads with \$216 per capita, followed by Hays (\$26), Williamson (\$6), Bastrop (\$1), Caldwell (\$.77), and Burnet (\$.17).

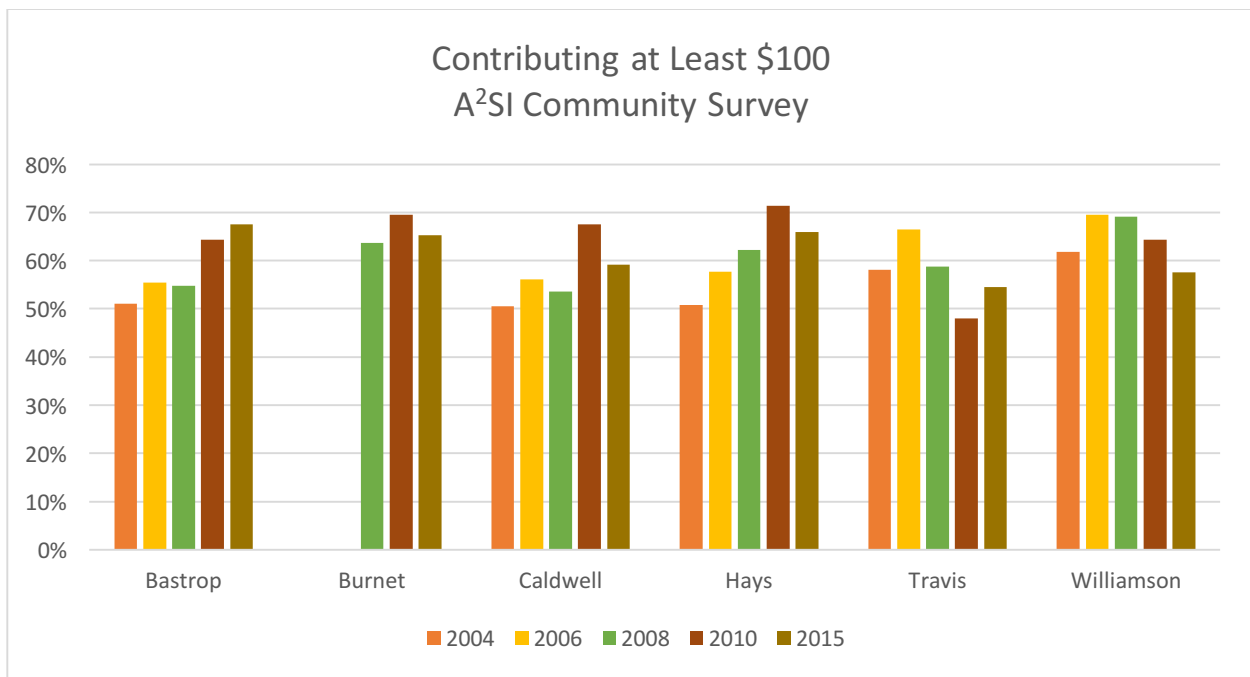


Individual Philanthropy

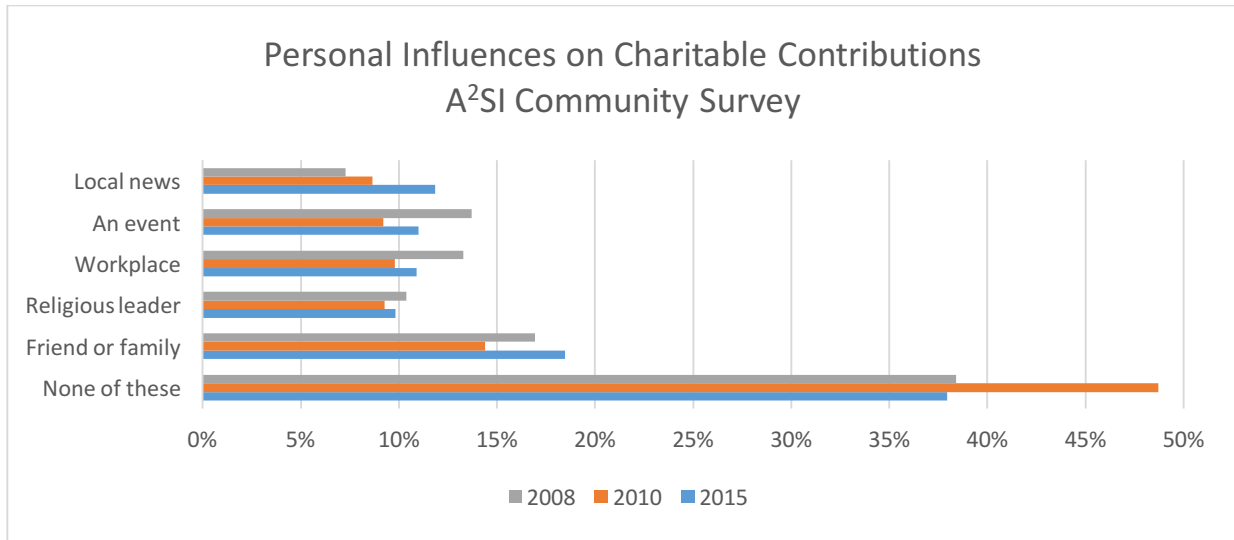
The giving ratio measures the percentage of an individual’s adjusted gross income given to charity. Contributions of philanthropic individuals indicates engagement with and attention to social issues and the organizations working to address them. In 2012, residents of Austin-Round Rock MSA gave on average 2.7 percent of their income to charitable causes, including churches and other religious groups. This is lower than the statewide giving ratio average of 3.6%. In every Central Texas county, individuals earning \$25,000 or less gave more than any other group as a proportion of their income, with the average individual giving \$1,699.



According to the A²SI Community survey, the percentage of people that report giving more than \$100 to charitable programs or organizations over the course of the last year is down from 2010, except for Bastrop and Travis counties. Travis County, however, has the lowest percentage of people giving \$100 or more at 54%, whereas Bastrop has the highest percentage at 68%.

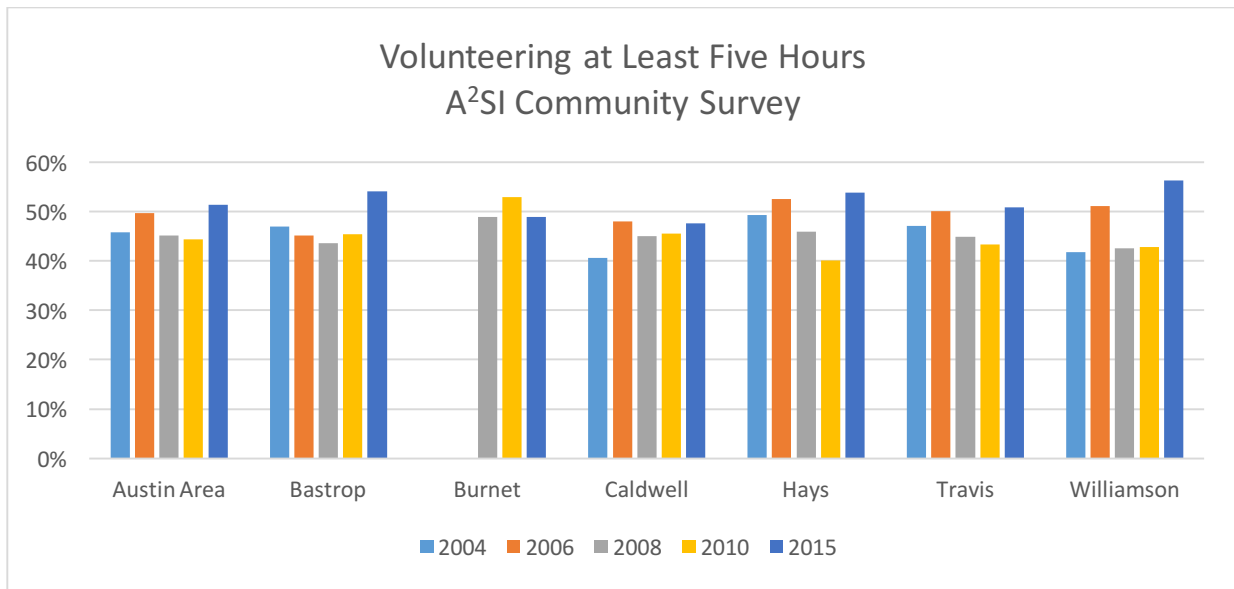


Many factors influence someone to contribute money to a charitable cause. According to the A²SI Community Survey, the responses appear relatively stable from 2008, 2010, and 2015. The majority of respondents don't identify with any of the survey responses. Of the responses selected, family or friends seem to be the leading influence (18%) followed by local news (12%).

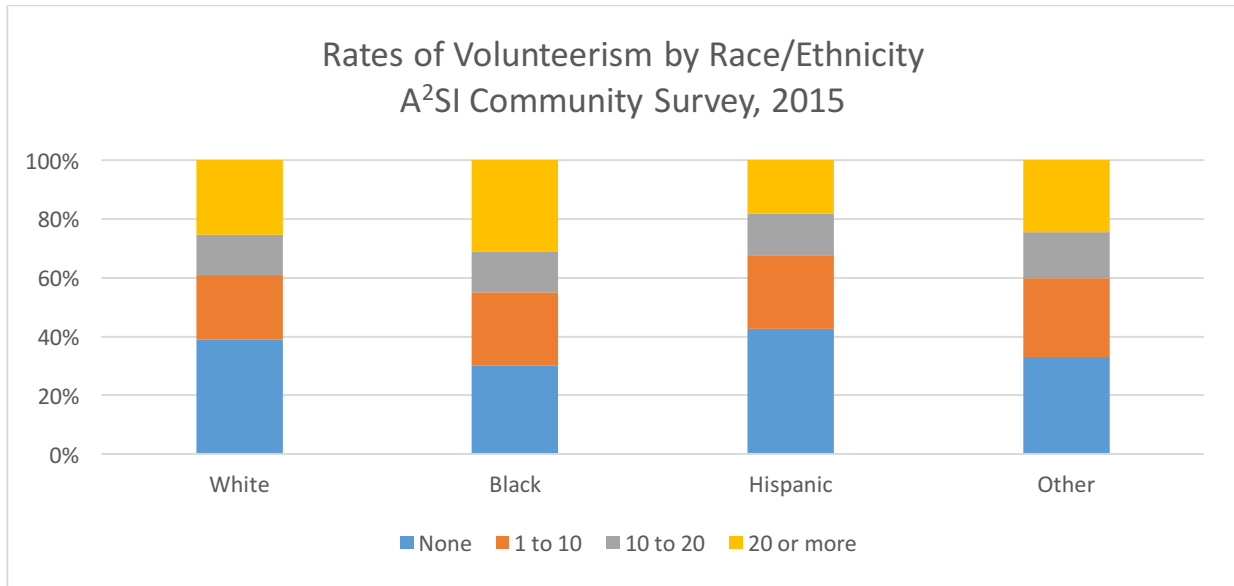


Volunteerism

While trends in volunteering vary slightly by county, they consistently remained between 40 to 50% throughout the first decade of the 2000s. Since 2010, the A²SI Community Survey indicates an uptick across all counties, except for Burnet. In the Austin Area, 51.4% of survey respondents report volunteering at least five hours or more. The biggest positive jump was seen in Williamson County, which was stable at 43% in 2008 and 2010 but increased to 56% in the 2015 survey.

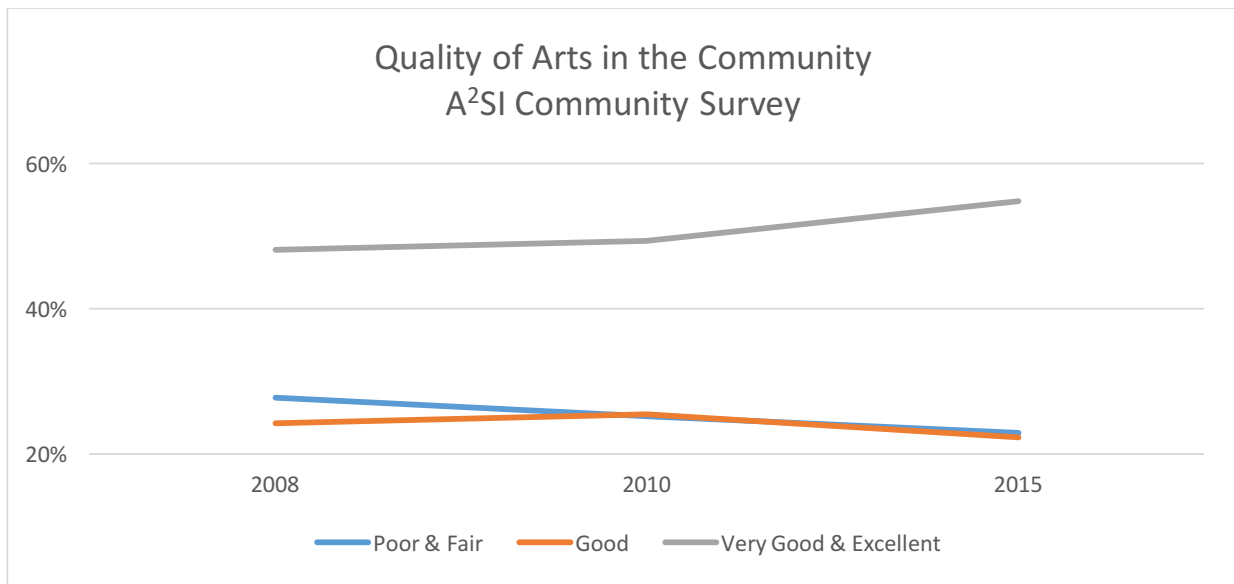


The data indicate that 13 to 15% of individuals give 10 to 20 hours of volunteer time consistently along all races. In total, African Americans report the highest rate of volunteerism with 72% of respondents reporting at least one hour.



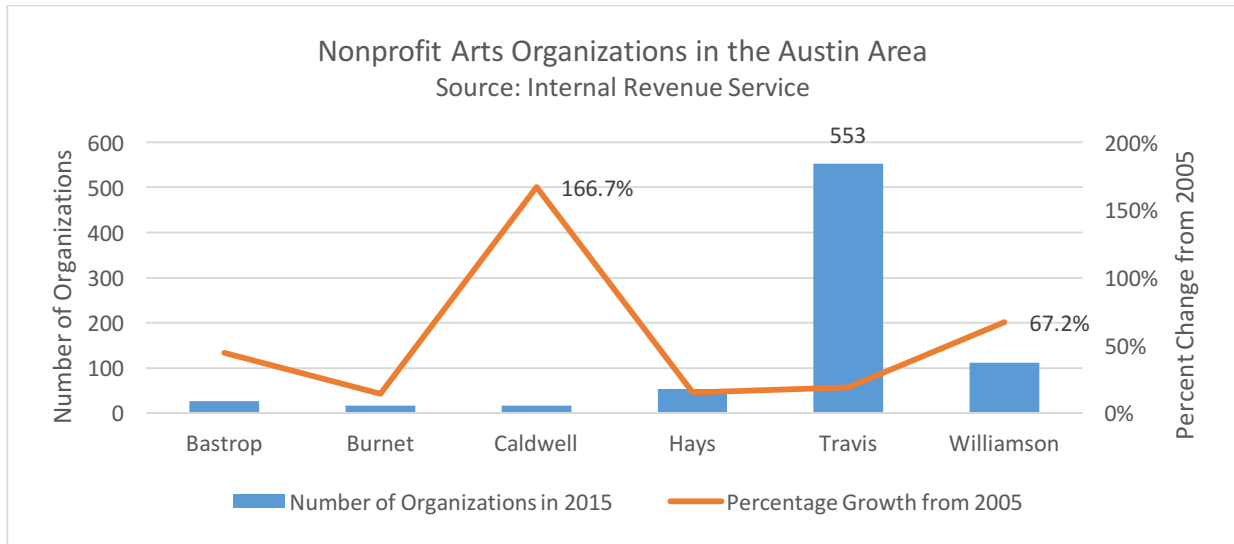
Participation in the Arts

Access and exposure to cultural events have many benefits in addition to economic development. Active participation in the arts can spur personal creativity, enrich our social lives, and enhance overall well-being. In general, the perception in the Austin area is that the quality of arts is improving with approximately 55% of survey respondents reporting the quality as being very good or excellent. This was up from 49% in 2010.



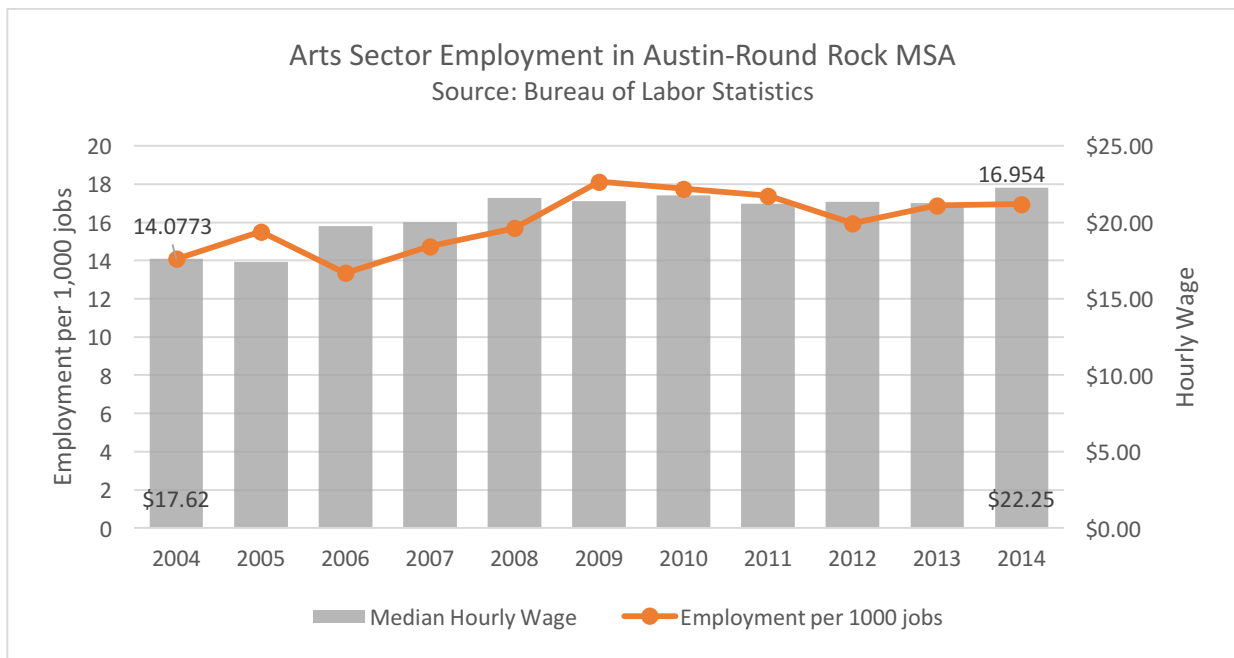
Non-Profit Arts Organizations

As the self-proclaimed Music Capital of the World, Travis County dominates the creative scene with the number of nonprofit organizations dedicated to the arts industry in Central Texas. However, Caldwell and Williamson counties have seen the highest growth in the number of nonprofits dedicated to the arts in the past 10 years.



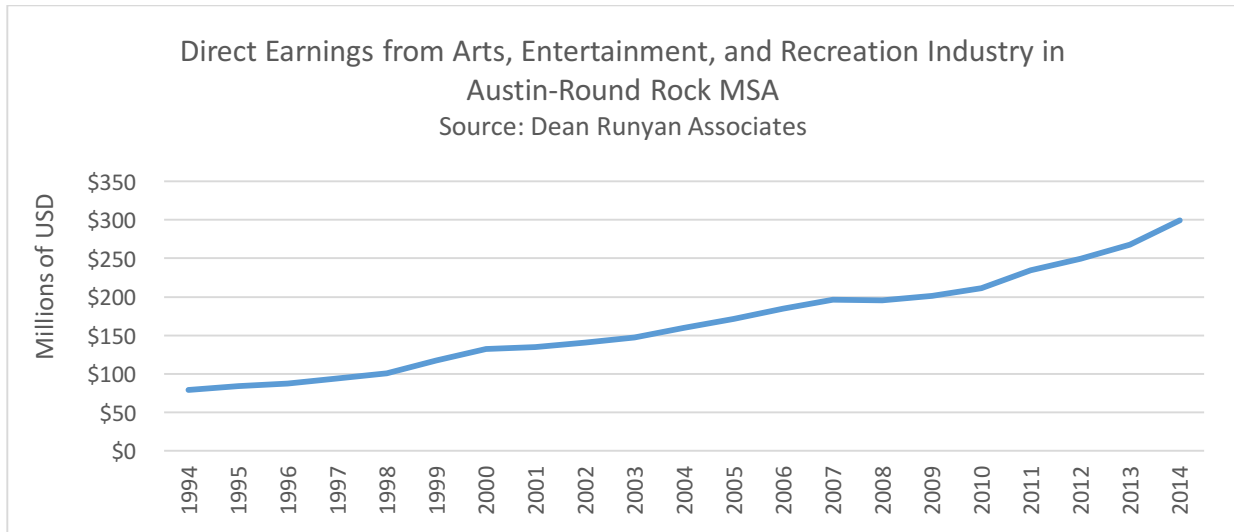
Arts Sector Employment

Despite the growth in nonprofit organizations dedicated to the creative sector, employment only increased slightly from 2004 and leveled off in 2009. Hourly wage in this industry also increased slightly from 2004, but has remained relatively stagnant in the region since 2008.



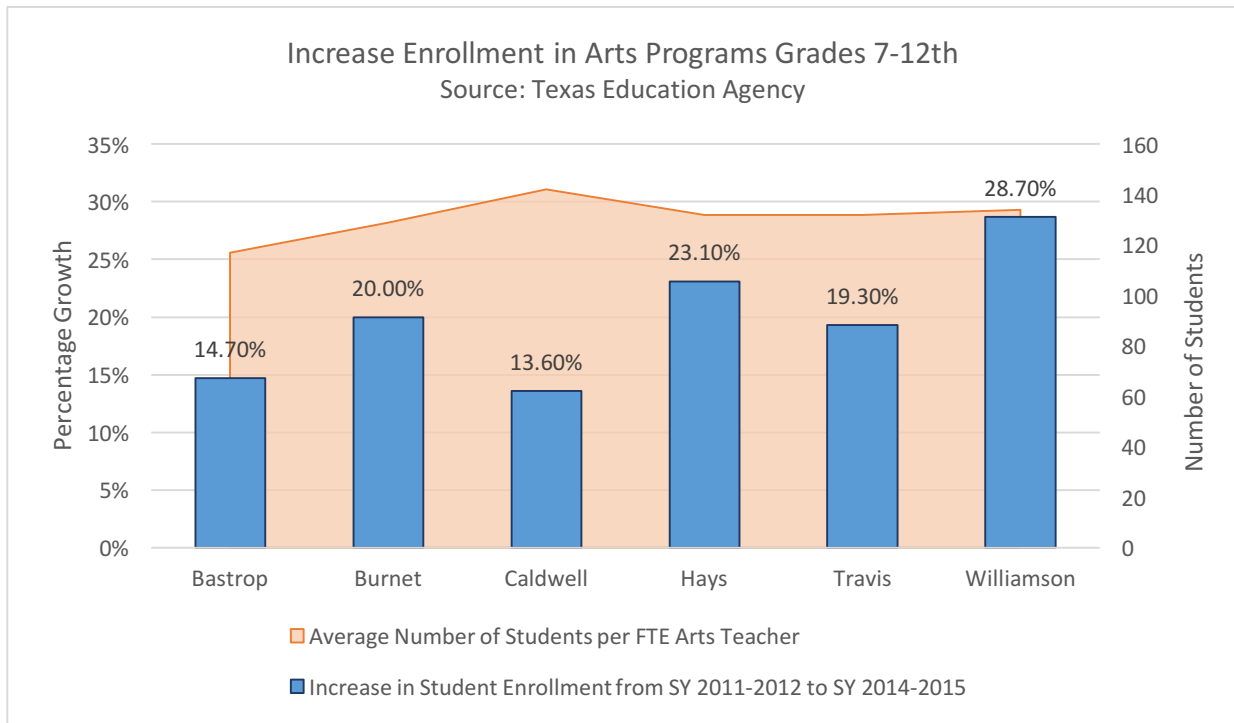
Earnings from Arts Sector

Austin-Round Rock MSA anchors one of the most exciting destinations in the State of Texas. Over the past 20 years, the region has seen steady growth in direct earnings from the arts, entertainment, and recreation industry.

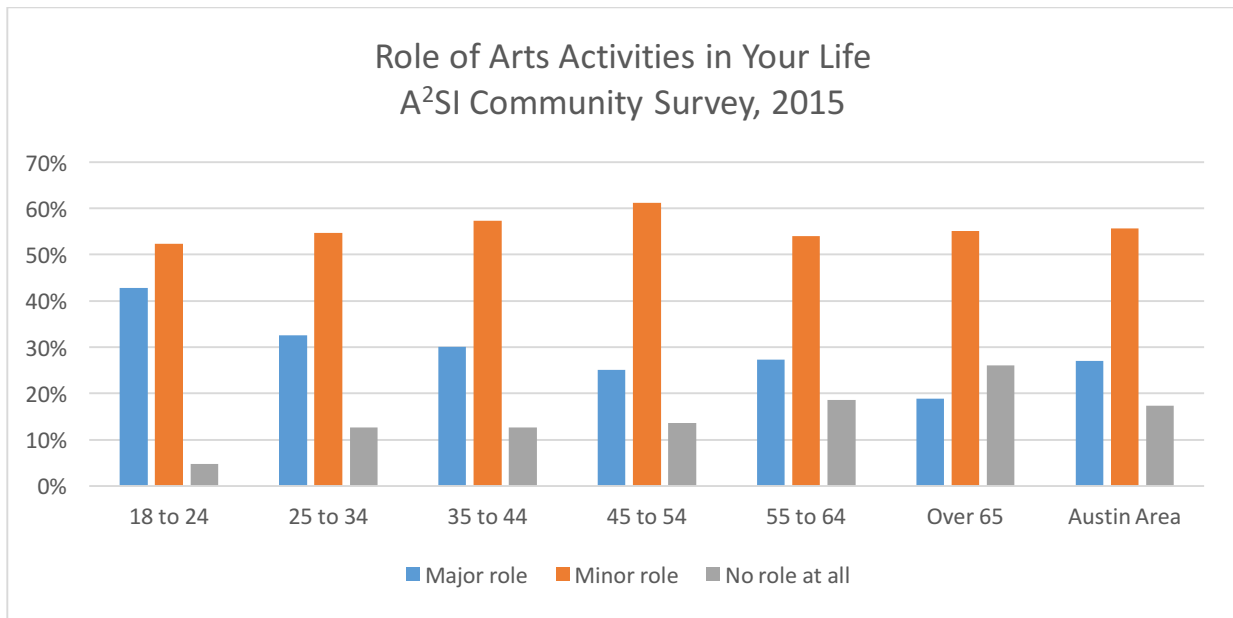


Youth Involvement in Arts

Interest in Arts Programs in grades 7 to 12 is increasing, as measured by the change in enrollment numbers in Arts, Dance, Music, Theater, A/V Tech, and Communication courses. On average, there are between 120 to 140 students per full-time arts teacher in each county.

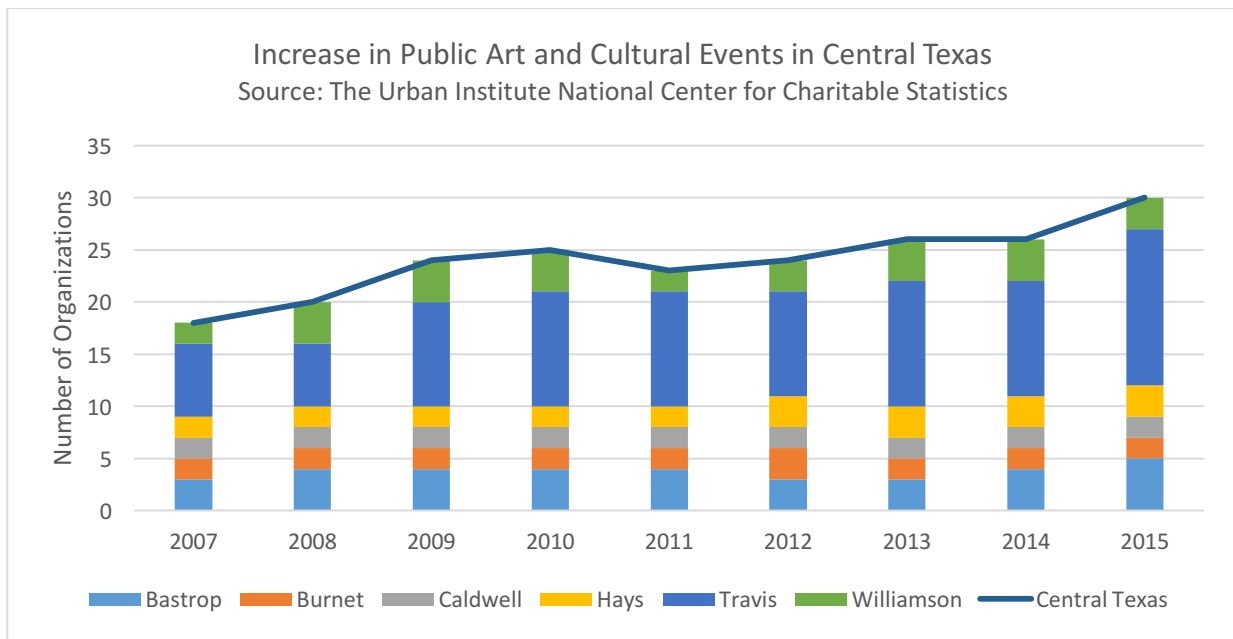


Respondents aged 18 to 24 reported that the Arts had a major role (43%) in their lives, more than any other age category. Approximately 95% of respondents in the 18 to 24 age category said the arts have a major or minor role in their life, compared with 83% of Austin area residents in general.

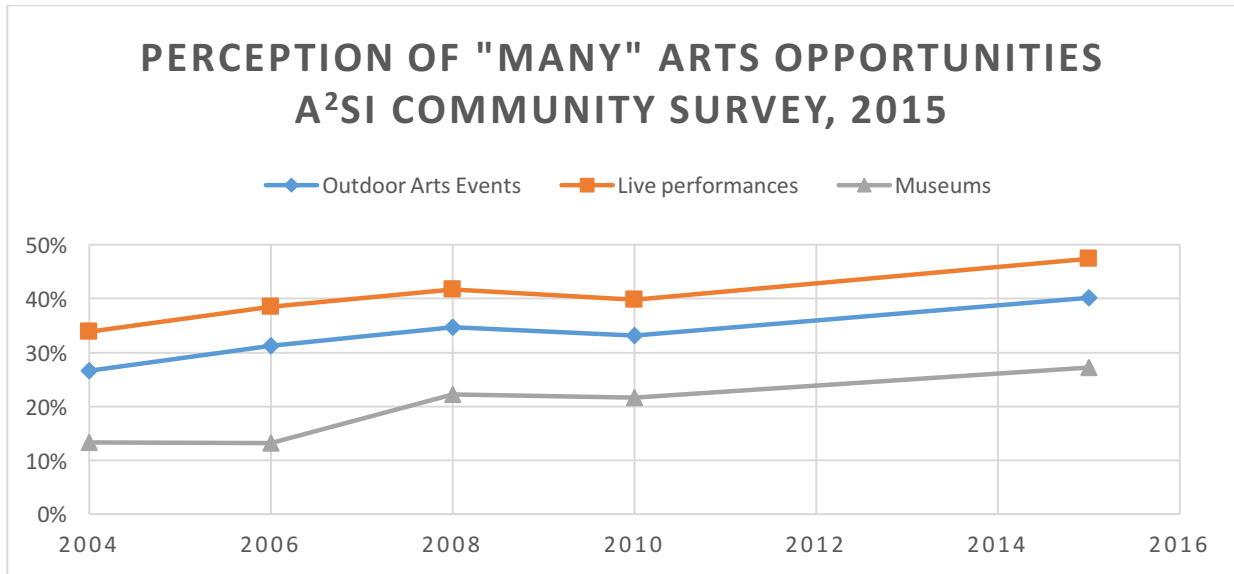


Entertainment Opportunities

Opportunities to enjoy live performances and artistic community events have also increased throughout the Austin area. Since 2007, Central Texas has nearly doubled the number of organizations dedicated to community celebrations, commemorative events, fairs, and festivals.



When survey respondents were asked to “think about the availability of the arts in your community”, there was region-wide perception that “many” arts opportunities have more or less been increasing for the past 10 years, including an increase of approximately 7% for museums, outdoor events, and live performances from 2010 to 2015. Travis, Williamson, and Hays counties report higher percentages of “many” events than do Bastrop, Burnet, and Caldwell counties.



Civic Participation

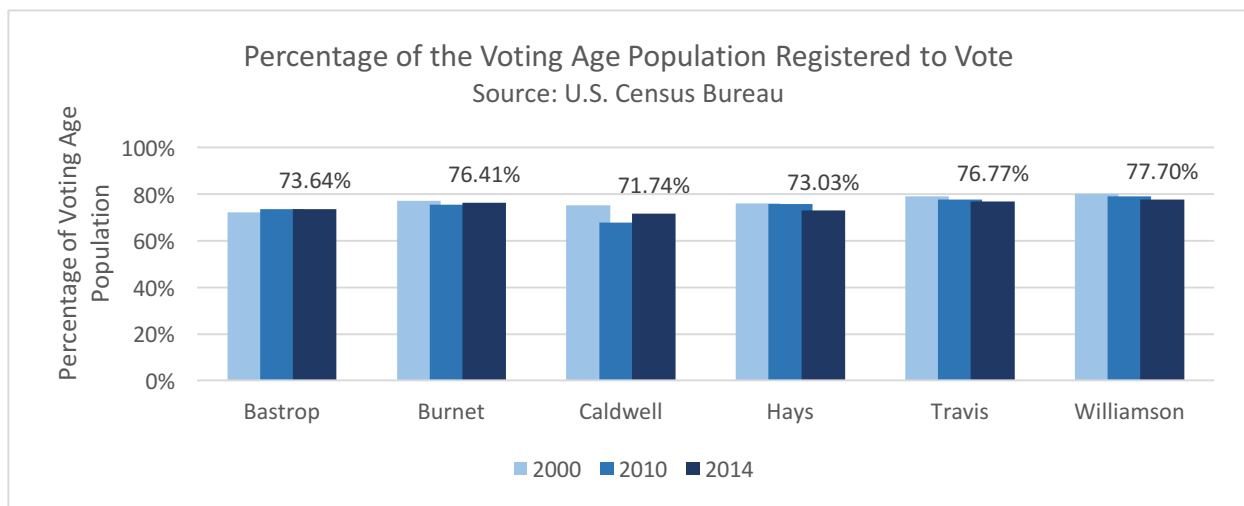
Civic participation is captured by a range of opportunities that include voting and political participation, attending public hearings, media campaigns, church attendance, and demonstrations. Under this indicator we also consider being informed and engagement with news. These different forms of civic participation vary widely between different communities of interest and are necessary on almost any issue related to economy, safety, health, social equity, education, environment, or land use.

Political Participation

An active and informed voting populace is one fundamental element of civic health. Voting regularly holds public officials accountable and reflects the concerns, preferences, and interests of citizens.

Registered Voters

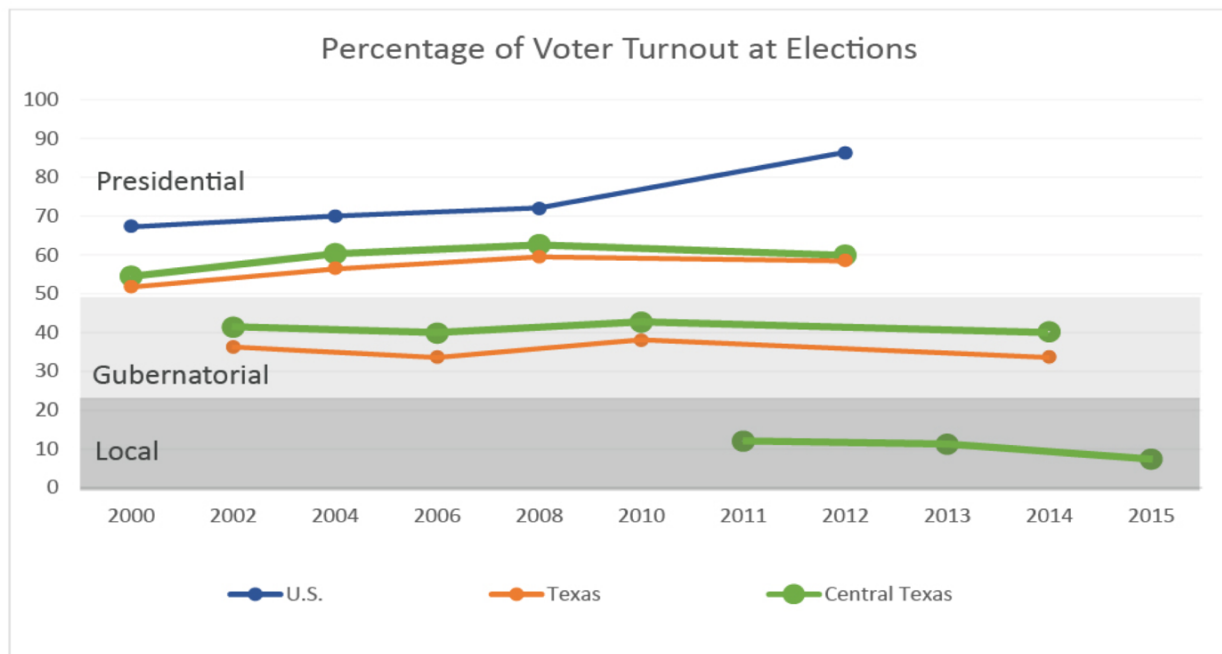
Registered voters, as a percentage of the voting age population, is the measurement of citizens that have reached the minimum voting age of 18 years and have registered to do so. Williamson County has



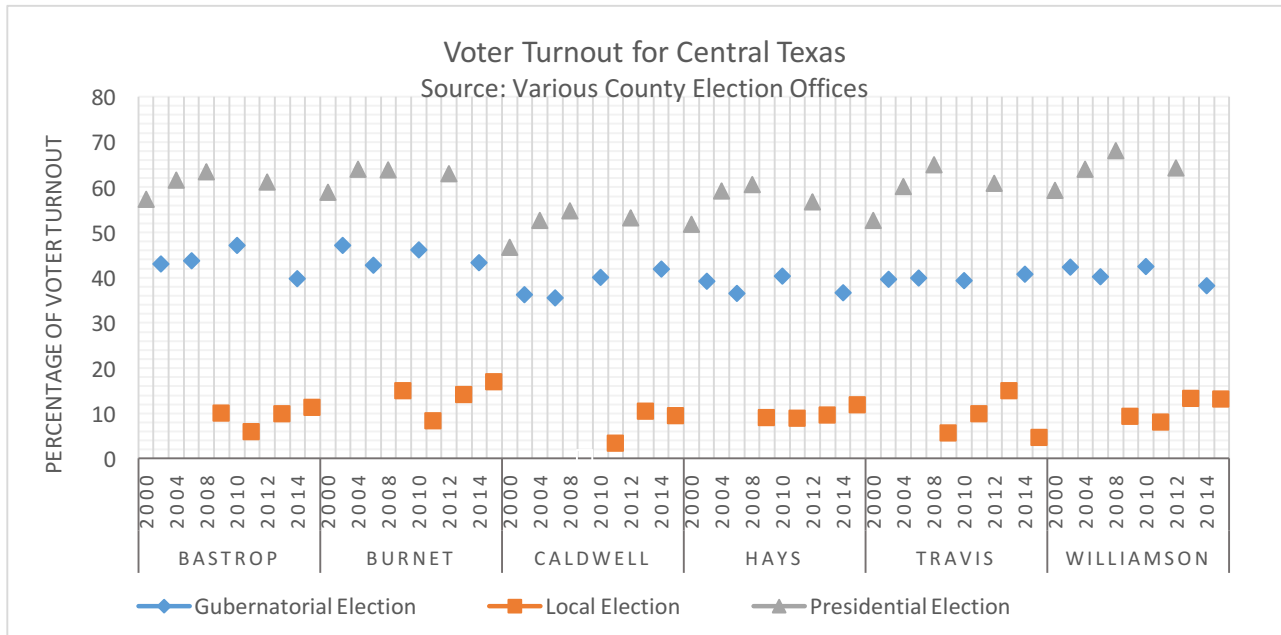
the highest rate of registered voters (77.7%), followed by Travis (76.7%) and Burnet (76.4%) counties. With the exception of Bastrop County, Central Texas counties have seen a dip in voter registration among the voting age population since 2000.

Voter Turnout

Voter turnout is a measure of citizens’ participation in the political process. A high voter turnout increases the chance that the political system reflects the will of a large number of individuals and is one indicator of the legitimacy of the government. Presidential elections have the highest voter turnout among all elections in Texas and, at 62%, peaked in 2008 in the election between then Senator Barack Obama and Senator John McCain. Voter turnout for local elections peaked in 2011 at 11%.

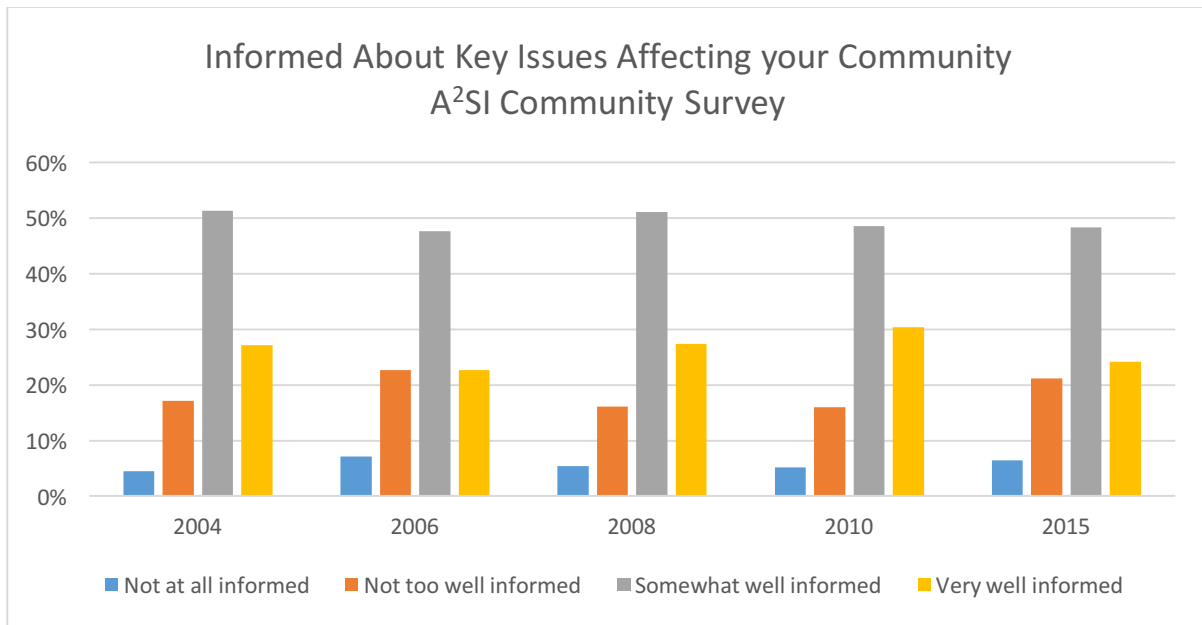


Voter turnout for each Gubernatorial election cycle has stayed relatively consistent throughout the years for Hays, Travis, and Williamson counties. Local elections have the lowest voter turnout. Travis saw a voter turnout of just 4.6% for the November 2015 local elections, an all-time low. Bastrop, Burnet, and Hays counties saw their highest voter turnout for local elections in November 2015, with 11%, 17%, and 12%, respectively.

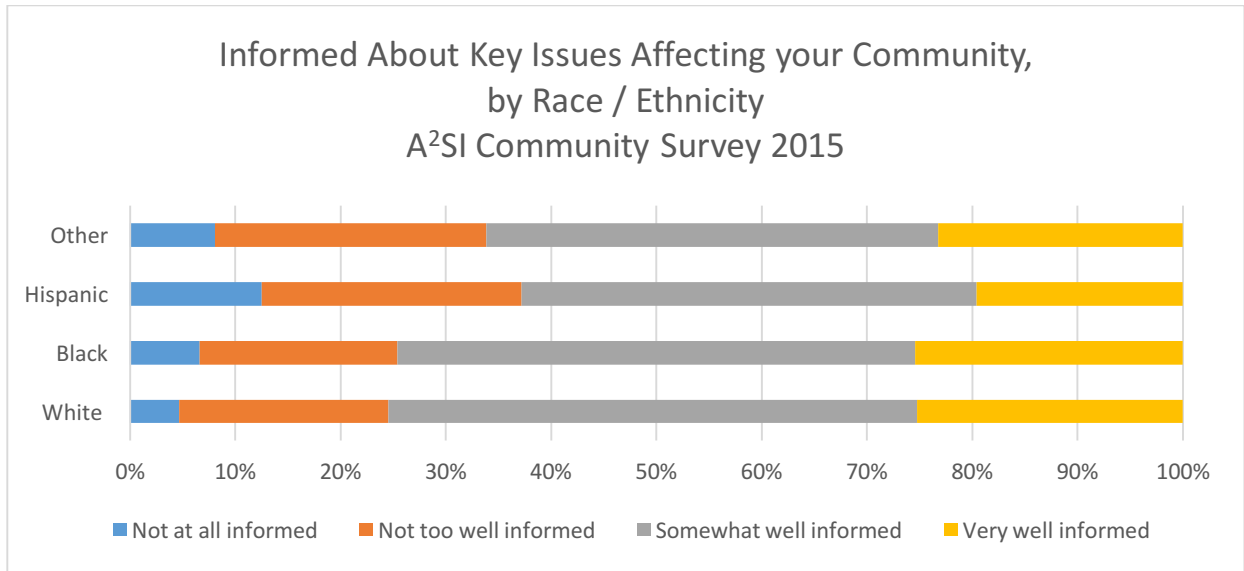


Informed and Engaged

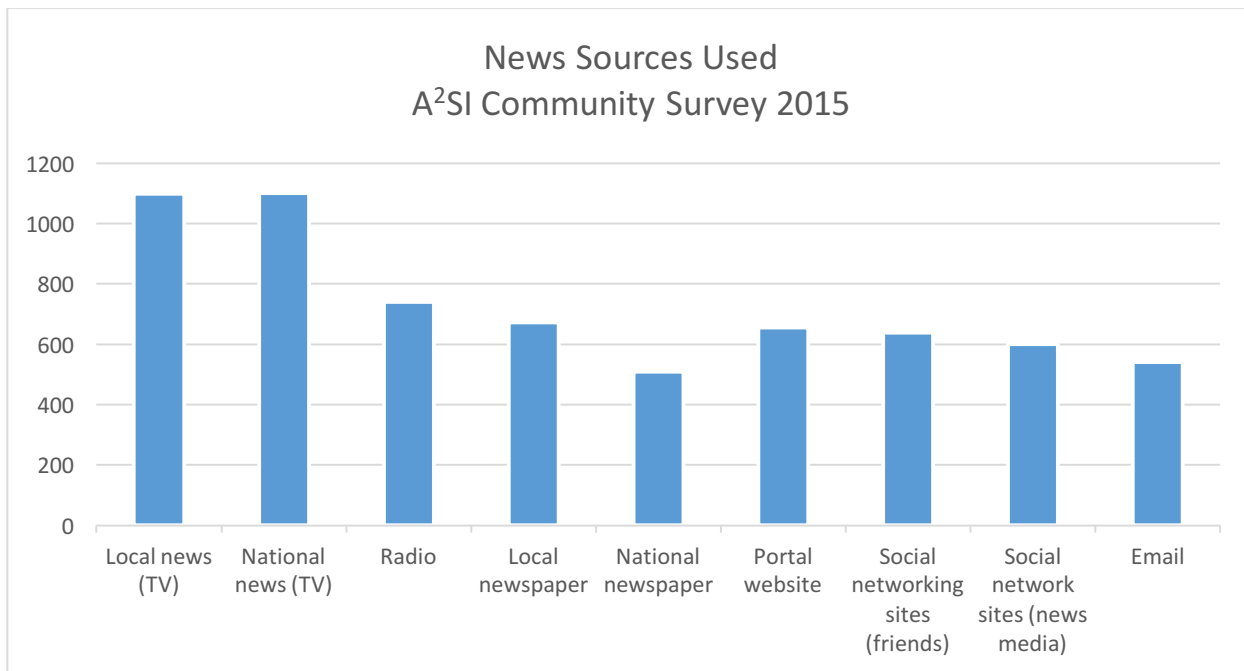
While voting and political participation is a critical indicator of civic participation, there are other ways that Austin area residents engage in their communities. Approximately 72% of Austin area residents report feeling informed about key issues that are affecting their community, which is down from the approximately 78% that reported feeling informed in 2008 and 2010.



In 2015, approximately 28% of Hispanics reported feeling not at all or not too well informed about issues affecting their community, the highest of all race/ethnicity categories.

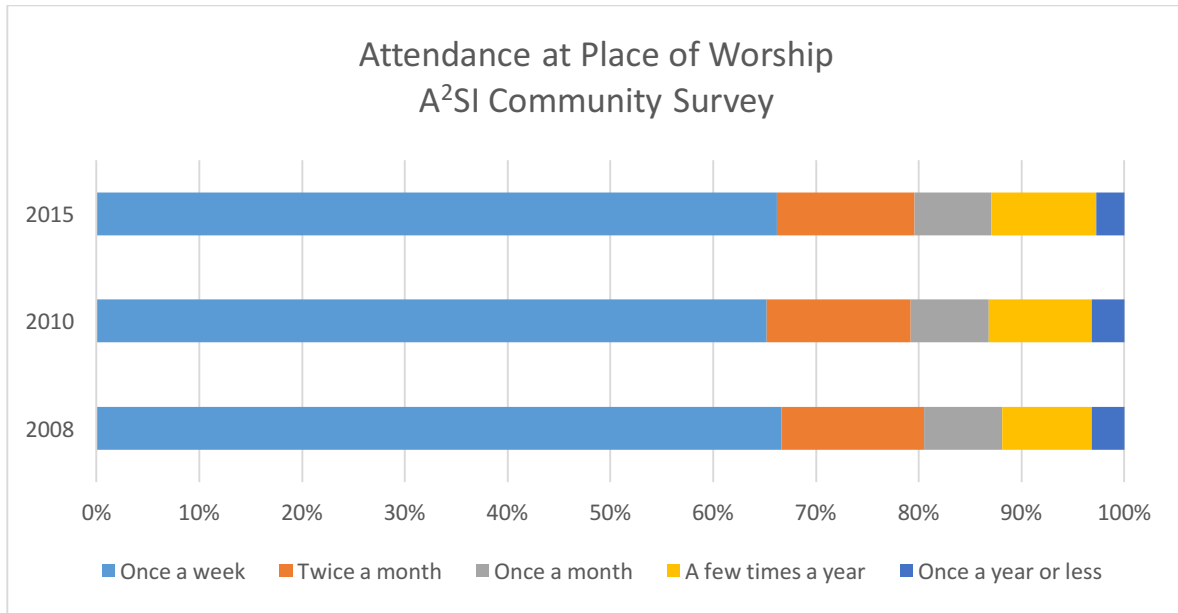


The majority of Austin area residents report getting information about current events from local and national television news followed by radio, local newspapers, and web-based news formats (the answers to the survey question were not mutually exclusive).

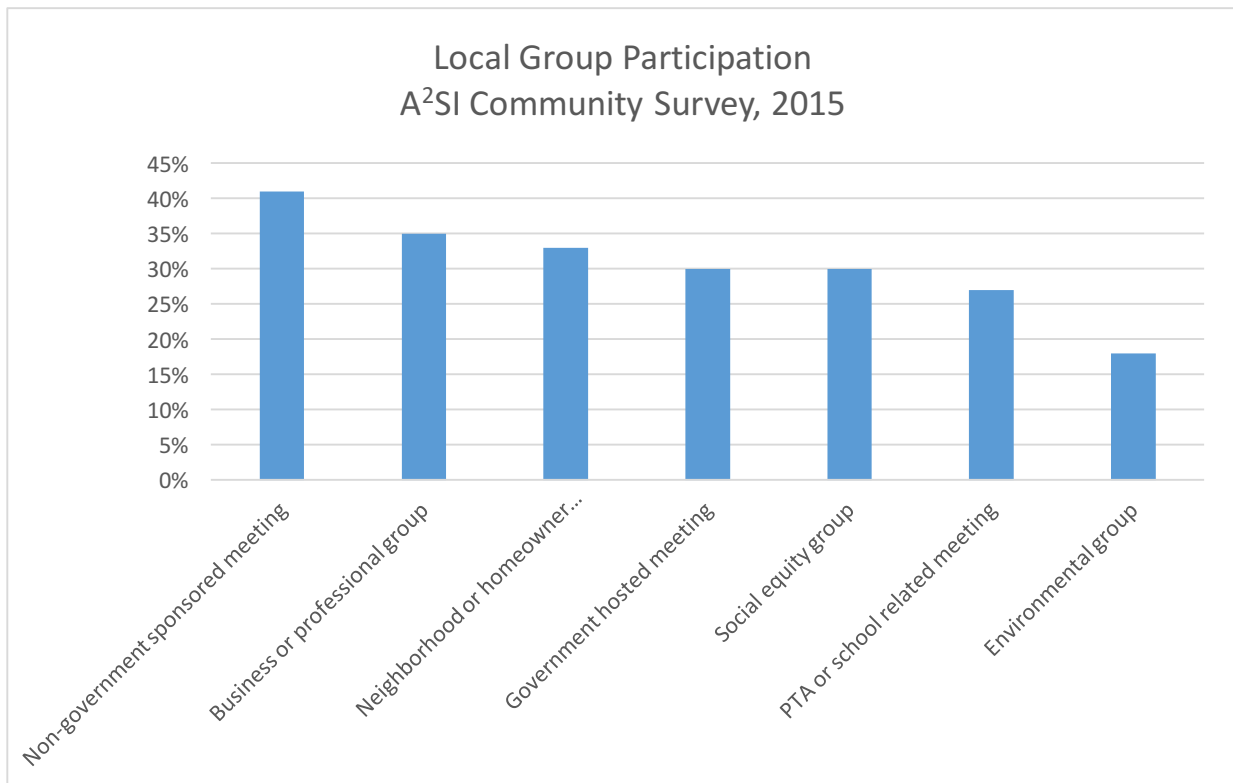


Community Participation

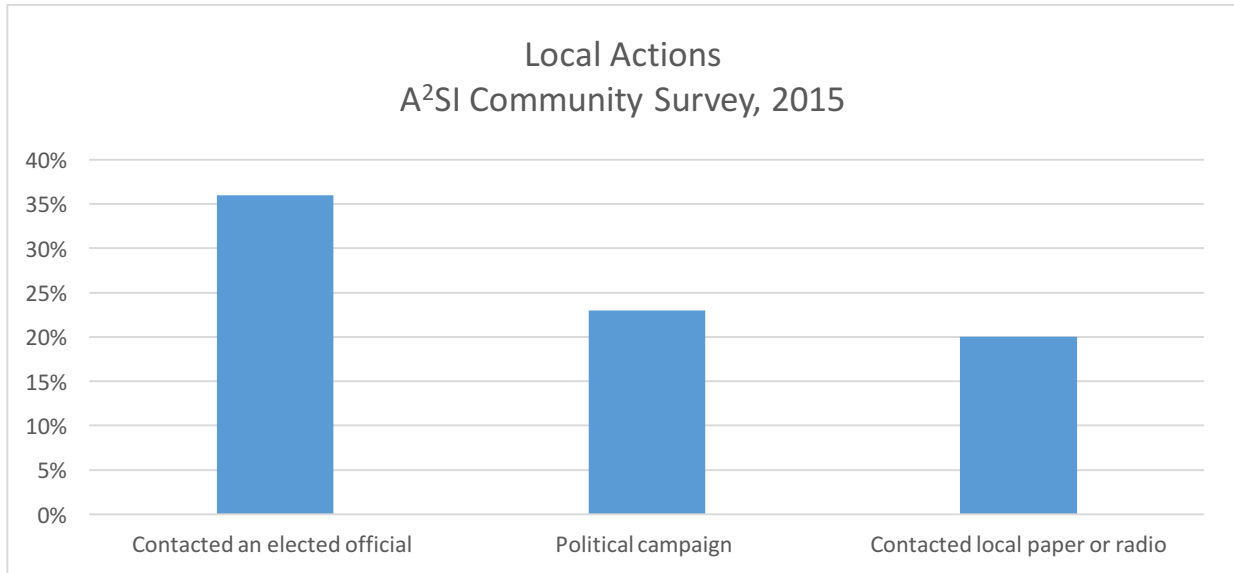
In 2015, approximately 58% of respondents reported being a member of a particular faith group that meets regularly. Nearly three-quarters (72%) of African American respondents reported this, followed by Whites (58%) and Hispanics (53%). Of those that report membership in a particular faith or spiritual group, 66% report attending service once a week. This trend is very consistent over the past three surveys.



In addition to religious affiliation and engagement, there are other ways citizens can be involved in local groups to express an interest in the future of the community. For example, over 40% of those surveyed responded that they attended a non-government sponsored meeting, 35% reported being a part of a business or professional group, and 30% reported being a part of a social equity or human services group such as Habitat for Humanity or ACLU.



Others reported taking actions as part of civic participation in the form of contacting an elected official, being involved in a political campaign, or contacting local paper or radio.



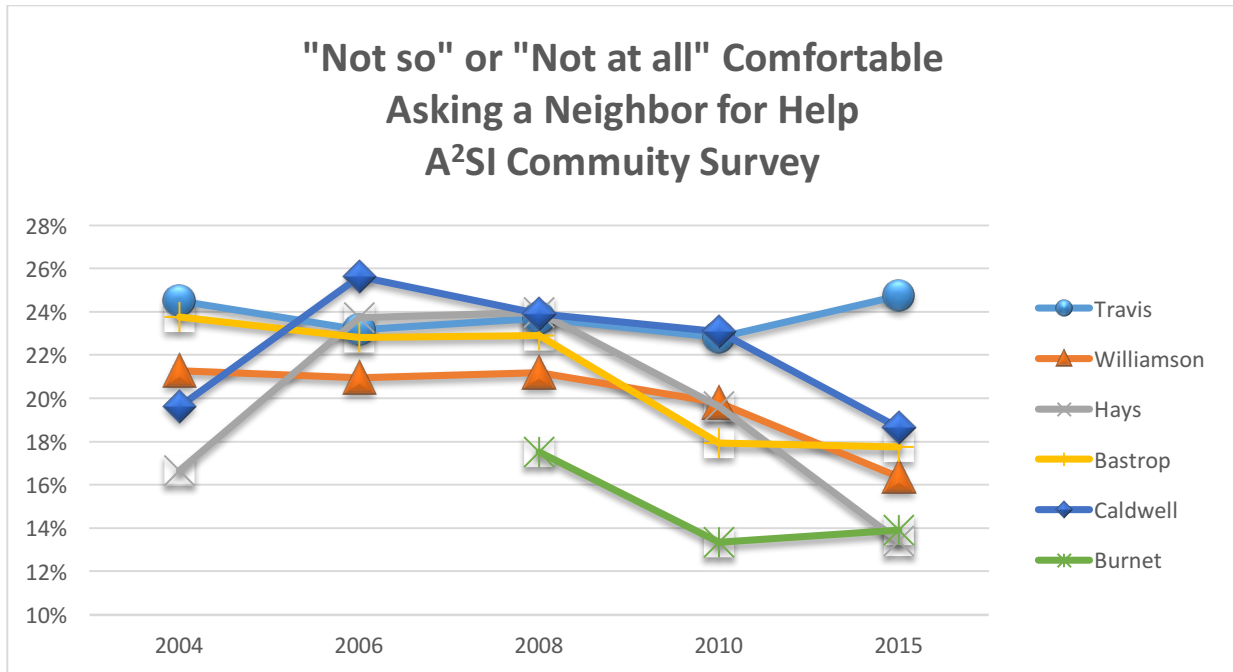
Social Connectedness

Civic engagement is bolstered by social connectedness: interacting with and trusting one’s neighbors, friends, and family. Social capital, the trust and network of relationships that exist in a community, can be leveraged for mutual benefit. Metrics of neighborliness can be used for social connectedness.

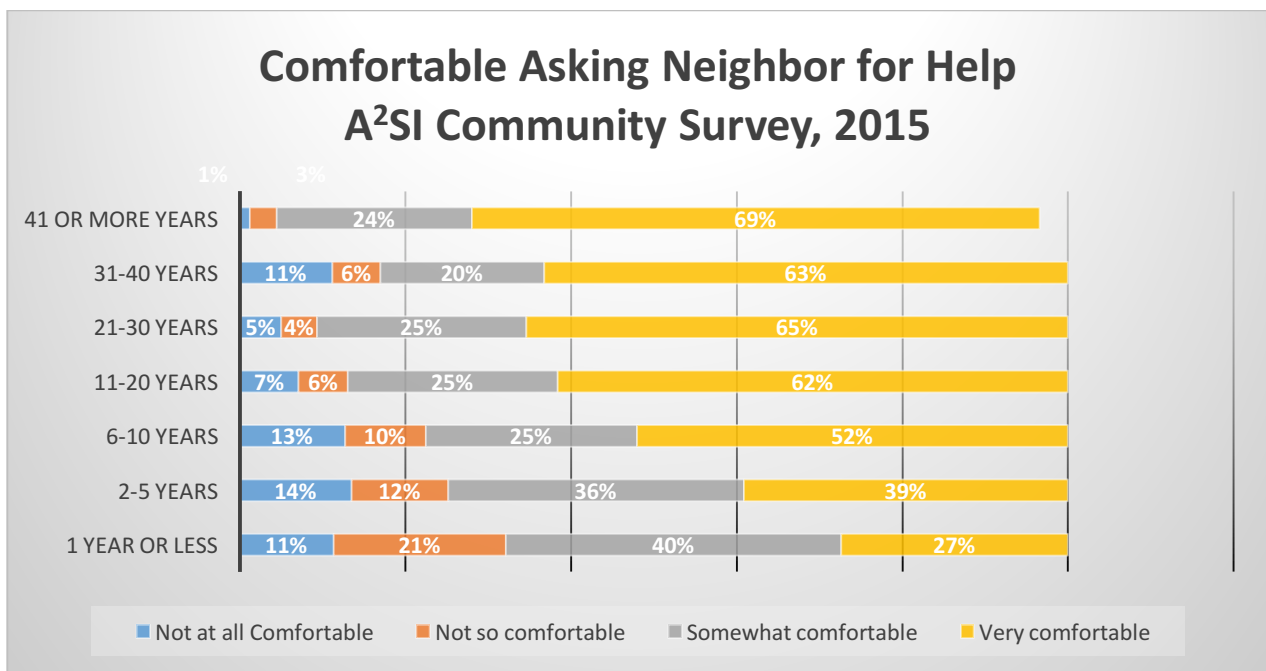
Neighborliness

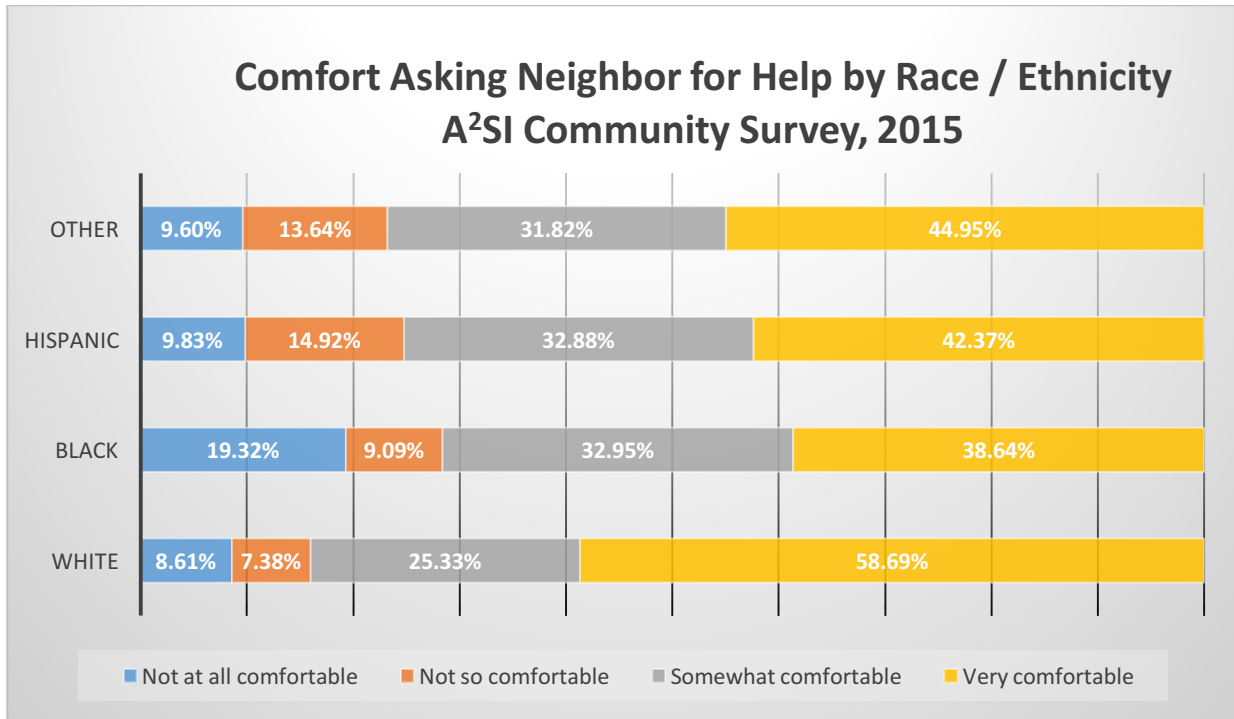
Neighborliness is an inherently subjective and qualitative issue. Neighborliness includes a number of dimensions that include trust, reliability, and feeling like you have things in common with those around you. Neighborliness is also directly affected by the real and perceived change of the neighborhood in response to economic forces, crime rates, and turnover of people moving in and out of the neighborhood.

According to the A²SI Community Survey, nearly 25% of Travis County residents report that they are not comfortable asking a neighbor for help. Since 2004, the proportion of Travis County residents that report this has been increasing, but the trend has been decreasing for other counties in the region.



Length of residence affects the degree of comfort people feel with seeking help from their neighbors. Those living in their neighborhood longer are more likely to feel “very comfortable” contacting their neighbors for help. Moreover, the level of comfort is not as strong for African Americans where 19% are “not at all comfortable” asking a neighbor for help. However, this trend is improving from 2008 (31% report “not at all comfortable”) and 2010 (21%).





Summary and Conclusion

Civic engagement allows people to express their voice and to contribute to the political, social, and community functioning of the Austin area. Civic engagement is foundational to a sustainable region because it shapes the institutions that intersect with many of the sustainability dimensions (e.g. environment, health, public safety, equity, etc.). Some of the indicators are quite positive when compared to state and national trends such as volunteerism, philanthropic activity, voter registration, etc. However, disparities across counties, income, and race/ethnicities persist. Overall, these patterns are important as they point to indicators of healthy civic engagement.

Appendix A: Glossary

Arts Industry – According to the Bureau of Labor Statistics the Arts, Entertainment, and Recreation sector (NAICS 71) includes a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons. This sector comprises (1) establishments that are involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and (3) establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

Assets per Capita – Assets per capita is the economic value that is controlled by the average person with the expectation that it will provide a future benefit.

Employment: the estimated total occupational employment (not including self-employed).

Foundation - A charitable organization that, while serving a good cause, does not qualify as a public charity by government standards. A private foundation is a nonprofit organization which is usually created via a single primary donation from an individual or a business and whose funds and programs are managed by its own trustees or directors. As such, rather than funding its ongoing operations through periodic donations, a private foundation generates income by investing its initial donation, often disbursing the bulk of its investment income each year to desired charitable activities.

Giving Ratio – The percentage of adjusted gross income given to charity as determined using the charitable deductions reported on the income-tax forms.

Location Quotient: (State, metropolitan, and nonmetropolitan statistical area estimates only) the ratio of an occupation's share of employment in a given area to that occupation's share of employment in the U.S. as a whole. For example, an occupation that makes up 10 percent of employment in a specific metropolitan area compared with 2 percent of U.S. employment would have a location quotient of 5 for the area in question.

Nonprofit Organizations – A nonprofit organization is a business entity that is granted tax-exempt status by the Internal Revenue Service. Donations to a nonprofit organization are often tax deductible to the individuals and businesses making the contributions. Nonprofit organizations must disclose a great deal of financial and operating information to the public, so that donors can ensure their contributions are used effectively.

Voting Age Population – The voting-age population, known by the acronym VAP, is defined by the Bureau of the Census as everyone residing in the United States, age 18 and older.

Voter turnout – *Voter turnout* is the percentage of eligible registered voters who cast a ballot in an election.

Voter Suspense: "Suspense status" means an applicant for voter registration whose status as a voter is held in abeyance until certain voter qualifications are met.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Civic Engagement	Philanthropy and Volunteerism	Foundation Density by county	Internal Revenue Service	Source: Internal Revenue Service, Exempt Organizations Business Master File (501(c)(3) Private Foundations) The Urban Institute, National Center for Charitable Statistics, http://nccsweb.urban.org/
Civic Engagement	Philanthropy and Volunteerism	Assets per Capita for Private Foundations in Central Texas by county	Internal Revenue Service	Source: Internal Revenue Service, Exempt Organizations Business Master File (501(c)(3) Private Foundations) The Urban Institute, National Center for Charitable Statistics, http://nccsweb.urban.org/
Civic Engagement	Philanthropy and Volunteerism	Reinvestment as a Percentage of Assets by county	Internal Revenue Service	Source: Internal Revenue Service, Exempt Organizations Business Master File (501(c)(3) Private Foundations) The Urban Institute, National Center for Charitable Statistics, http://nccsweb.urban.org/
Civic Engagement	Philanthropy and Volunteerism	Private Foundation Reinvestment per Capita	Internal Revenue Service; Texas State Demographer	Source: Internal Revenue Service, Exempt Organizations Business Master File (501(c)(3) Private Foundations) The Urban Institute, National Center for Charitable Statistics, http://nccsweb.urban.org/ ; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Civic Engagement	Philanthropy and Volunteerism	Giving Ratio in Central Texas	The Chronicle of Philanthropy	The Chronicle of Philanthropy, How America Gives https://philanthropy.com/interactives/how-america-gives#search
Civic Engagement	Participation in the Arts	Nonprofit Arts Organizations in Central Texas	Internal Revenue Service	Internal Revenue Service, Exempt Organizations Business Master File. The Urban Institute, National Center for Charitable Statistics, http://nccsweb.urban.org

Civic Engagement	Participation in the Arts	Arts Sector Employment in Austin-Round Rock MSA Direct Earnings from Arts,	Bureau of Labor Statistics	Bureau of Labor Statistics, Occupational Employment Statistics, OES Code 27-000, http://www.bls.gov/oes/tables.htm
Civic Engagement	Participation in the Arts	Entertainment, and Recreation Industry in Austin-Round Rock MSA	Dean Runyan Associates	Dean Runyan Associates, State and County Travel Impacts, http://www.deanrunyan.com/index.php?fuseaction=Main.TravelstatsDetail&page=Texas . Accessed 27 Oct 2015
Civic Engagement	Participation in the Arts	Enrollment in Arts Programs Grades 7-12th	Texas Education Agency	Teacher Education Agency, PEIMS Data, Teacher FTE Counts and Course Enrollment Reports, http://ritter.tea.state.tx.us/adhocrpt/adfte.html
Civic Engagement	Participation in the Arts	Increase in Public Arts and Cultural Events in Central Texas	Internal Revenue Service	Internal Revenue Service, Exempt Organizations Business Master File. The Urban Institute, National Center for Charitable Statistics, NTEE: A27, A84, N52, http://nccsweb.urban.org

Civic Engagement	Civic Participation	Voter Turnout for Central Texas	Texas Secretary of State; County Election Offices	Texas Secretary of State Turnout and Voter Registration Figures (1970-current), http://www.sos.state.tx.us/elections/historical/70-92.shtml ; Bastrop Votes, http://www.bastropvotes.org/election-results/election-archives/ ; Burnet County Election Office, http://www.burnetcountytexas.org/default.aspx?name=elect.results ; Caldwell County Election Office, personal communication 12 Oct. 2015; Hays County Election Office, http://www.co.hays.tx.us/election-results.aspx ; Travis County Clerk, http://traviscountyclerk.org/eclerk/Content.do?code=E.1 ; Williamson County Election Office, http://www.wilco.org/CountyDepartments/Elections/ResultsArchive/tabid/596/lang uage/en-US/Default.aspx#2013
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Civic Engagement	Civic Participation	Percentage of Voter Turnout at Elections for Central Texas	Texas Secretary of State; County Election Offices	Texas Secretary of State Turnout and Voter Registration Figures (1970-current), http://www.sos.state.tx.us/elections/historical/70-92.shtml ; Bastrop Votes, http://www.bastropvotes.org/election-results/election-archives/ ; Burnet County Election Office, http://www.burnetcountytexas.org/default.aspx?name=elect.results ; Caldwell County Election Office, personal communication 12 Oct. 2015; Hays County Election Office, http://www.co.hays.tx.us/election-results.aspx ; Travis County Clerk, http://traviscountyclerk.org/eclerk/Content.do?code=E.1 ; Williamson County Election Office, http://www.wilco.org/CountyDepartments/Elections/ResultsArchive/tabid/596/lang uage/en-US/Default.aspx#2013
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Civic Engagement	Civic Participation	Percentage of Voting Age Population Registered to Vote by county	Texas Secretary of State; U.S. Census Bureau	Texas Secretary of State Turnout and Voter Registration Figures (1970-current), http://www.sos.state.tx.us/elections/historical/70-92.shtm ; U.S. Census Bureau, Redistricting Data: Voting Age Population by Citizenship and Race, https://www.census.gov/rdo/data/voting_age_population_by_citizenship_and_race_cvap.html . Accessed 25 Feb. 2016
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Economy

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www.austinindicators.org

Austin Area Sustainability Indicators (2016) - Economy

Contents

Austin Area Sustainability Indicators (2016) - Economy 1

Economy 2

 Household Income 2

 Family Income 2

 Average Wage 3

 Income by Urbanity 4

 Income Distribution 5

 Poverty 6

 Diversity of the Economy 8

 Texas – Metro Business Cycle Index 8

 Employment Trends in Top Ten Industries by Employment 9

 Sales Tax 10

 Employer Size 10

 Businesses Owned by Women and People of Color 11

 Exports 12

 Annual Export Turnover 12

 Export Price Indices 14

 Employment in Export Industries of Austin – Round Rock, TX MSA 14

 Changes in Employment in Export Industries 15

 Jobs and Labor 16

 Labor Force and Employment 16

 Perceptions of Personal Skills and Opportunities 17

 Perception of Equal Access to Jobs 18

 Employment by Race / Ethnicity 19

 Top Ten Emerging Occupations 19

 Monthly Job Posting Volume 20

 Commuting to Work 21

 Entrepreneurship and Innovation 22

 Entrepreneurship and Job Creation 22

 Venture Capital Investment 23

 Utility Patents 24

Buying Local..... 26

Summary and Conclusion..... 26

Appendix A: Glossary 27

Appendix: Bibliography 29

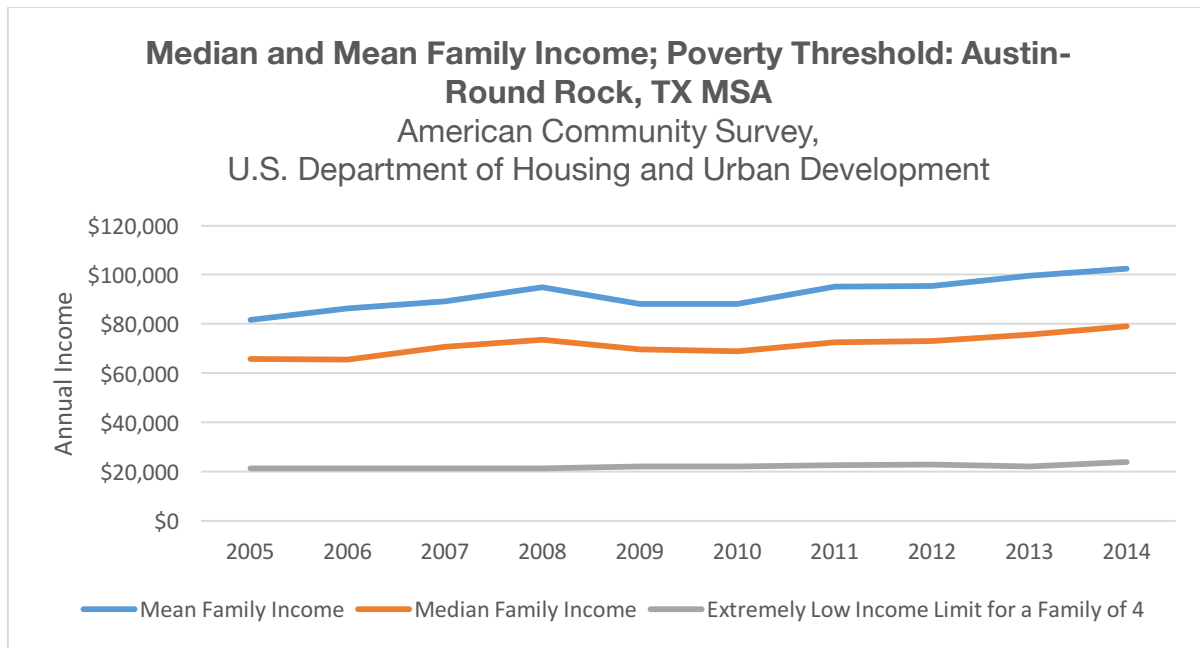
Economy

A thriving and vibrant local economy is the root of a sustainable region. Sustainability efforts can flourish if economic prosperity is distributed across sectors and demographic categories of society. The main indicators for the Austin area economy include: income, diversity of the economy, labor, exports, and entrepreneurship. Economic trends are central to the sustainability of a region as they are an indication of the region’s growth, resilience to changes, and how access to the benefits of the economy are distributed.

In general, the Austin area has seen strong economic growth with an increasing median income in the years since the 2008 recession. Unemployment rates have decreased while exports and entrepreneurial activity have increased. However, a growing proportion of the labor seems to be employed by a small number of large capital companies and racial disparities persist with regard to economic well-being.

Household Income

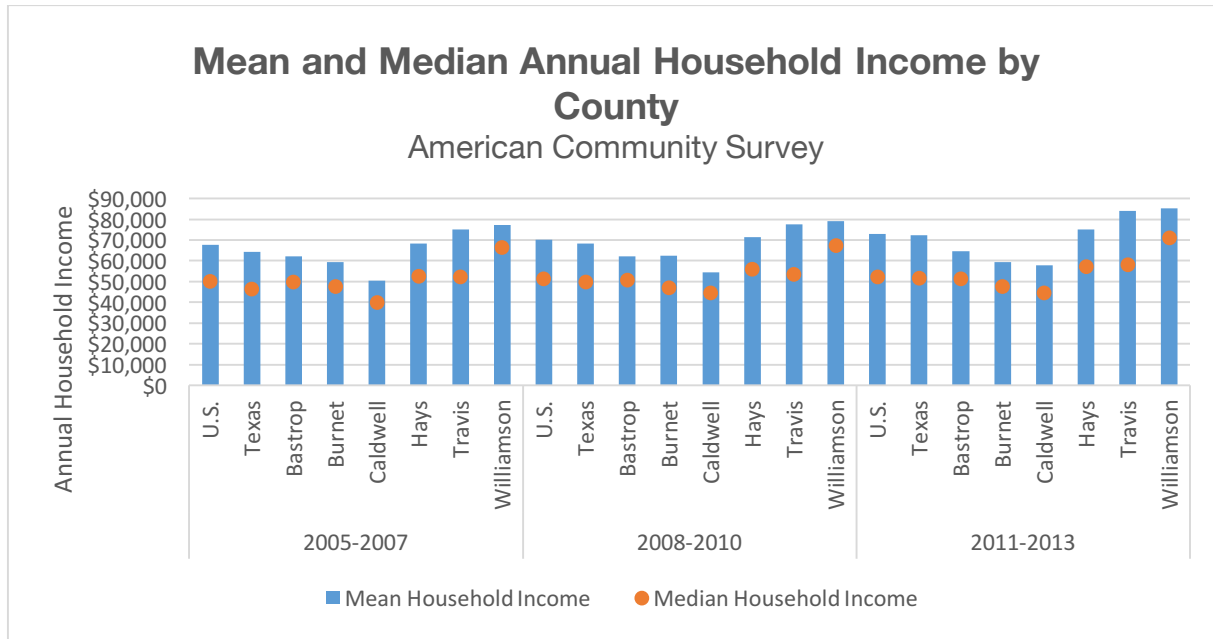
Median Family Income (MFI) is on gauge of internal regional economic health. It is particularly significant because many federal and state programs related to affordable housing, child care support, health care, and public education are indexed to the MFI. The MFI is calculated by the U.S. Department of Housing and Urban Development for a region and is not sensitive to income distribution within that region.



Family Income

The mean income is the average income earned by all families, while the median income marks the income level below which 50% of the families live. The mean and median family incomes for the Austin-Round Rock MSA have increased between 2005 and 2014. Looking at this decade more closely, the mean and

median incomes for the MSA fell during 2009 and 2010, due to the recession in 2008. However, by 2011, both had increased back to pre-recession levels.

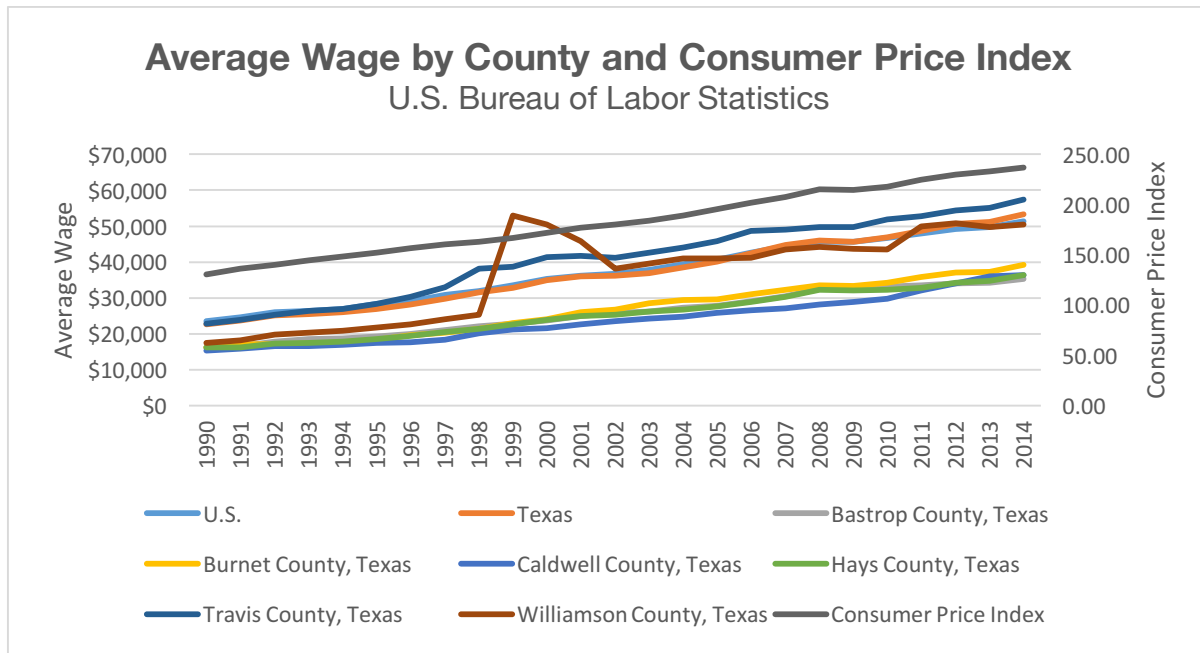


It is important to analyze annual mean and median incomes by county to identify if certain counties within the Austin area lag behind economically. Williamson, Travis, and Hays counties have mean and median annual household income values that are higher or comparable to those values of the United States and the State of Texas. Bastrop, Burnet, and Caldwell counties have mean and median annual household income values that are consistently lower than the comparable values for the United States and Texas. Caldwell County has the lowest average income level, with 50% of the households in the county living below \$44,000 from 2011 to 2013, which is only a slight increase from 2008 to 2010 but a significant increase from 2005 to 2007.

Average Wage

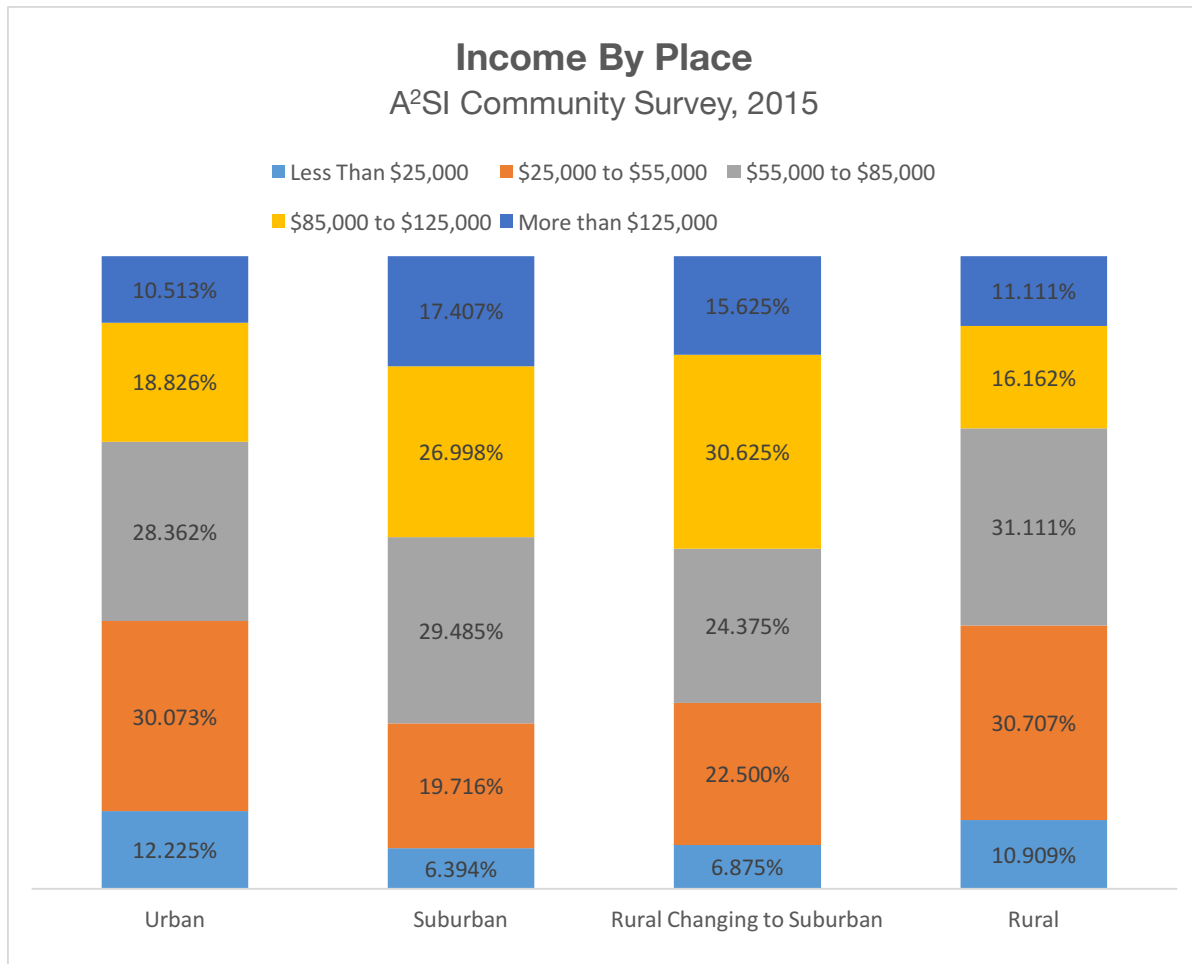
An analysis of average wage by county shows a similar trend that was seen with the median and mean household income levels. The average wage for people in Travis and Williamson counties is higher or comparable to the average wage in the United States and in Texas. All other counties have a markedly lower average wage, with the average wage of people in Travis County being about 60% greater than the average wage of people in Caldwell County. The average wage across all counties shows an increasing trend; however, the gap in average wages between Travis County and the non-urban counties in the Austin area has increased over time.

A comparison of the wage trend with the Consumer Price Index shows that the wages have increased proportionally with prices, which keeps the real wages almost constant over time.



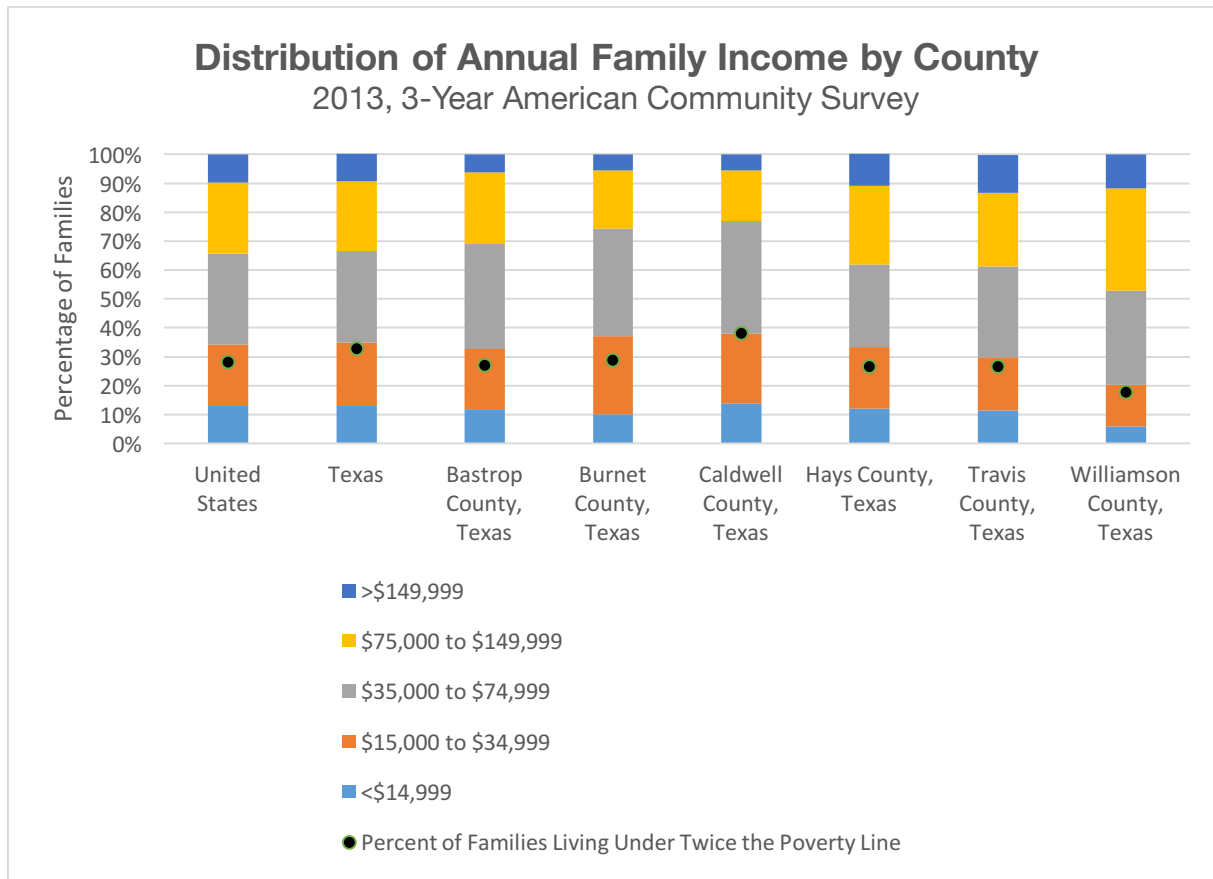
Income by Urbanity

Approximately 45% of respondents from suburban and “rural changing to suburban” settings reported annual incomes greater than \$85,000, compared to 25% of respondents living in urban or rural settings. This is a 5 % increase from 2010 in all settings, where 40% of suburban and “rural changing to suburban” dwellers and 20% of urban and rural dwellers, reported incomes greater than \$85,000. This is possibly indicative of proportional growth in all settings. Although this has been changing in the past few years as more rural residents move to suburban areas, suburban residents maintain the highest percentage of higher income earners.



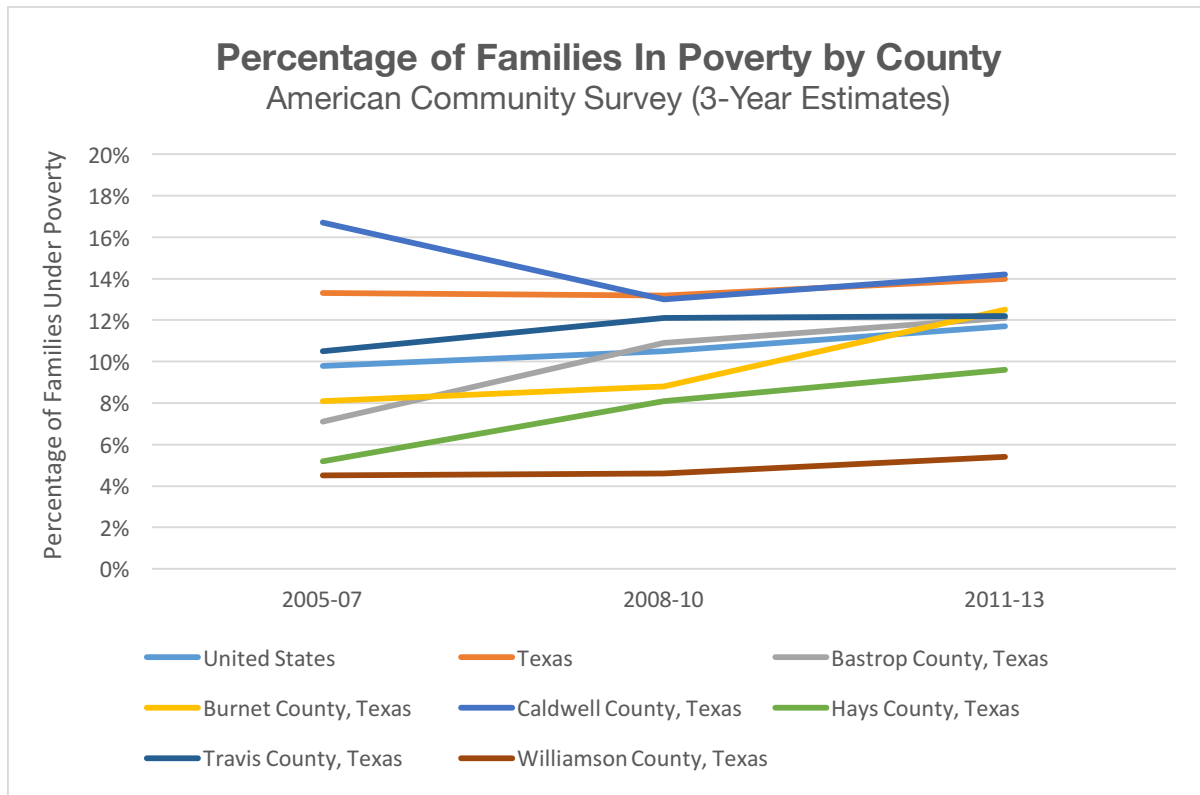
Income Distribution

An analysis of income distribution serves as an indicator of the extent of income inequality in an area. Caldwell and Burnet counties have 38% and 37.1% of households, respectively, living with annual household incomes lower than \$35,000. Analyzing the distribution of annual household income also gives an idea of the percentage of households meeting their needs with limited resources.

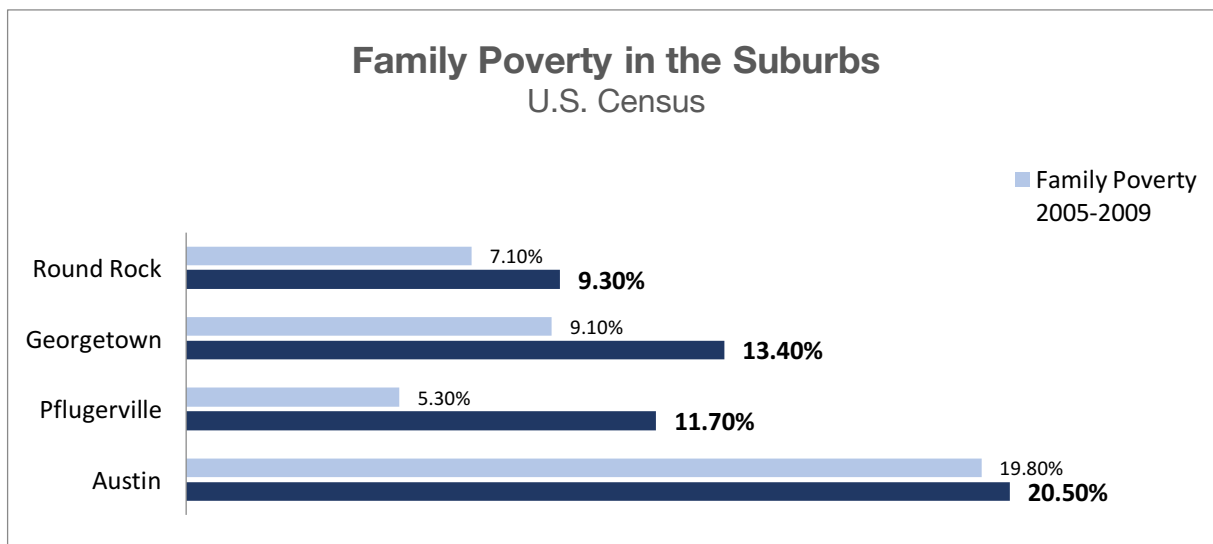


Poverty

Overall, the Austin area fares better than the state average, with a lower percentage of families living in poverty. Caldwell County has the highest percentage of families (14.2%) living in poverty, which is slightly higher than the State of Texas (with 14.0% of families living in poverty). Most other counties have lower (better) poverty rates than the overall average for Texas. Burnet and Travis counties have lower (better) poverty rates than the state average yet higher (worse) rates than the national average. A disturbing trend is the increase in the percentage of families living in poverty from the three-year period during 2005 to 2007 compared to 2011 to 2013, especially in Bastrop, Burnet, and Hays counties.

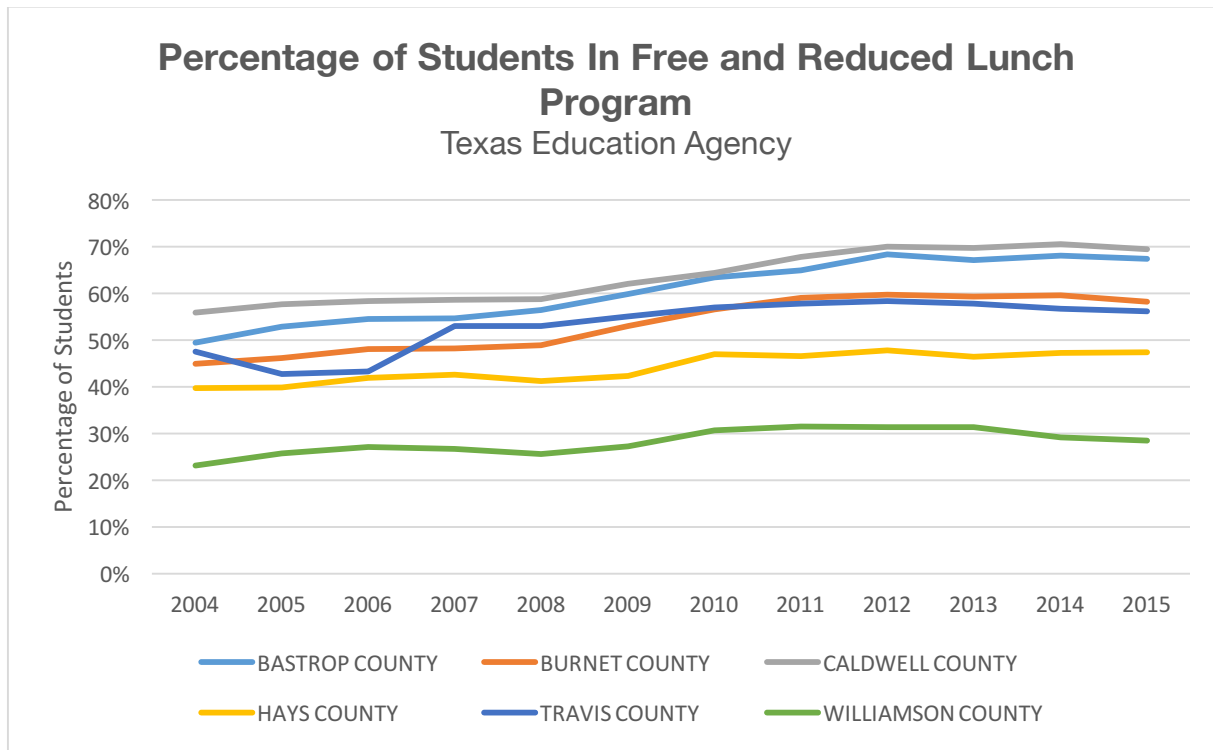


The graph below highlights the trend that the spatial patterns of poverty are shifting to the suburbs in the Austin area. As families move out of the City of Austin due to the lack of affordable housing, the suburban areas are seeing an increase in poverty rates. Of all suburban areas, Pflugerville has the highest percentage point increase of 6.4 percentage points among families with children under 18 years old, followed by Georgetown (+4.3) and Round Rock (+2.2). The City of Austin also saw an increase in poverty, with one out of five families living in poverty from 2010-2014, a 0.7 percentage increase from the previous five-year period.



Congruent with the increase in poverty over the years, there has been an increase in the percentage of students enrolled in free and reduced lunch programs. In Caldwell County, 70% of students were enrolled

in free and reduced lunch programs in 2015, compared to 56% in 2004. These statistics also reveal that the Free and Reduced Lunch Program is an important service to provide food to children of low-income families in the Austin area.



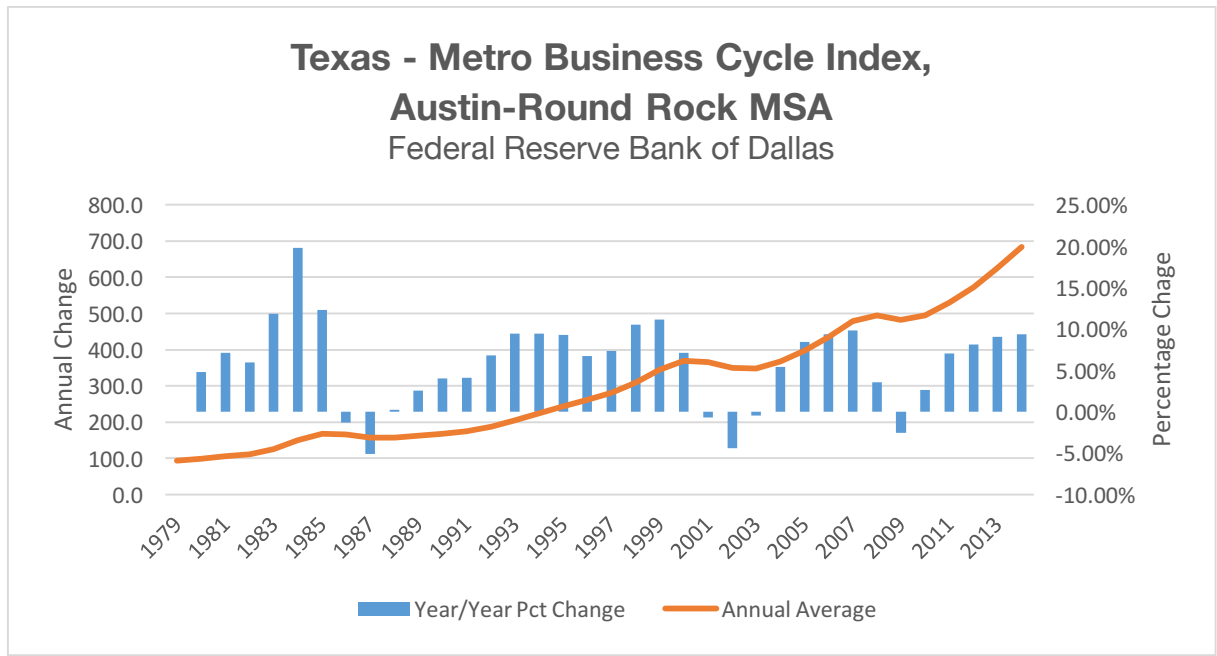
Diversity of the Economy

Firms in every industry were affected by the 2008 recession, but the area’s economy recovered relatively quickly. While major employers that are spread across several regions may be more able to weather a recession, small businesses tend to be more local in nature and thus more vulnerable to regional trends in housing affordability, health insurance, land use and transportation.

Texas – Metro Business Cycle Index

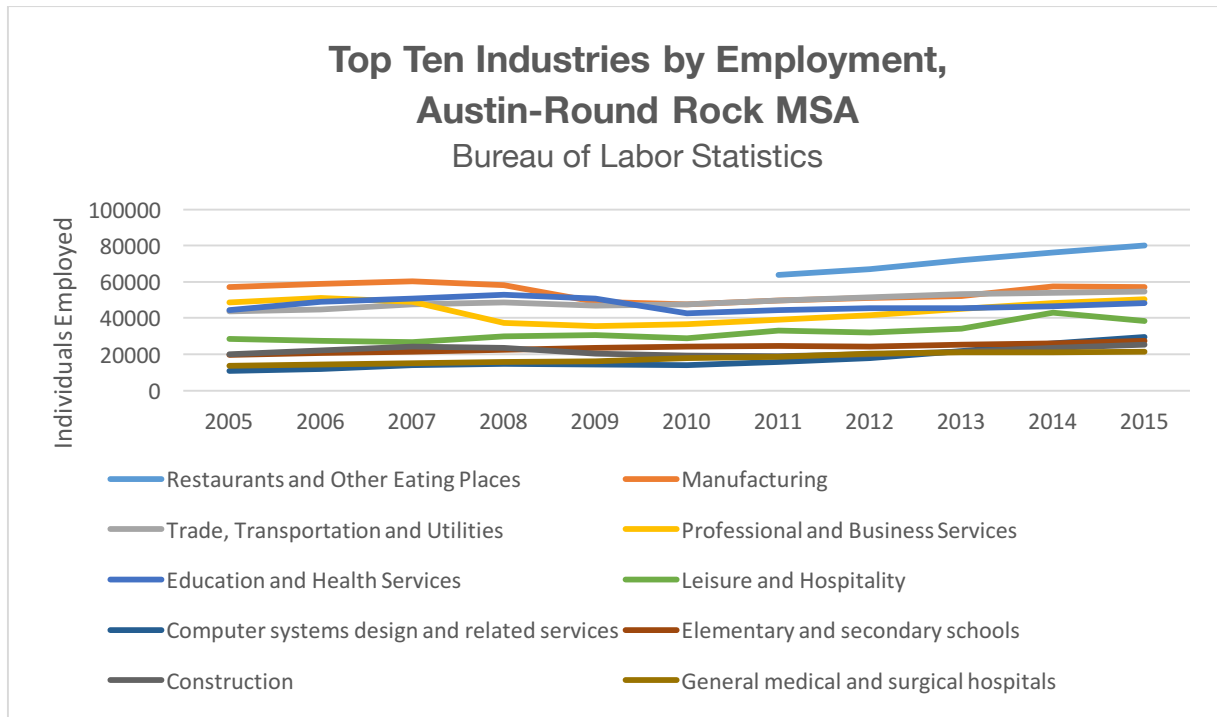
The Metro-Business Cycle Index is constructed based on movements in the local unemployment rate, nonagricultural employment, inflation – adjusted wages, and inflation-adjusted retail sales. This Index reflects broad movements in the local economy, and can predict the future movement of the local Austin economy. In recent years, the economy of Austin – Round Rock MSA has shown a positive annual growth rate of around 6 to 7%, and seems to have reached the height of the current Business Cycle. According to the latest release of data by Business County Patterns, Travis County and San Francisco, California led the nation in employment growth, with an annual employment growth rate of 5.7% in 2014.¹

¹ U.S. Census (2016). *San Francisco and Travis, Texas, Lead Nation in Employment Growth among Large Counties*, Census Bureau Reports [Press release]. Retrieved from <http://www.census.gov/newsroom/press-releases/2016/cb16-71.html>



Employment Trends in Top Ten Industries by Employment

The chart below shows that employment has been increasing in almost all of the top ten major industries of Austin-Round Rock MSA from 2010 to 2015. In recent years, only the Leisure and Hospitality Industry has shown a decline in employment (from 2014 to 2015). Moreover, the Manufacturing and Professional and Business services, the two industries in which employment dropped considerably during the 2008 recession, have finally rebounded in 2015 to return to nearly pre-recession employment levels.

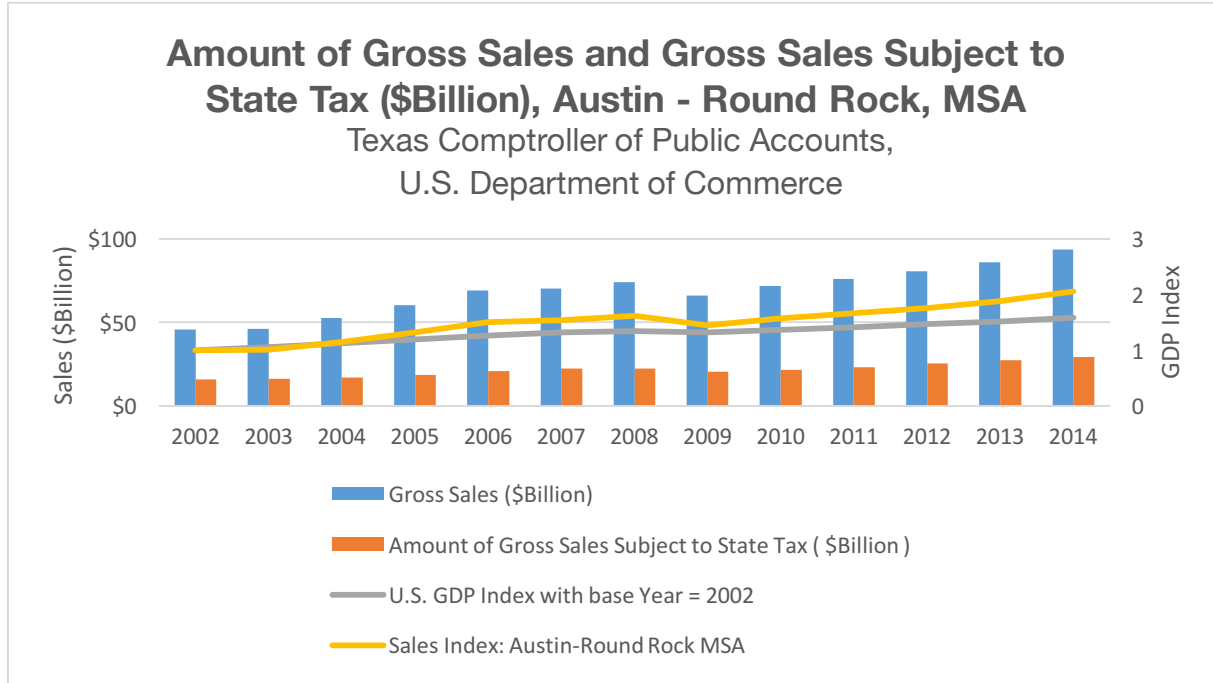


*NAICS

Category, 7225, “Restaurants and Other Eating Places” was introduced in 2012 NAICS.

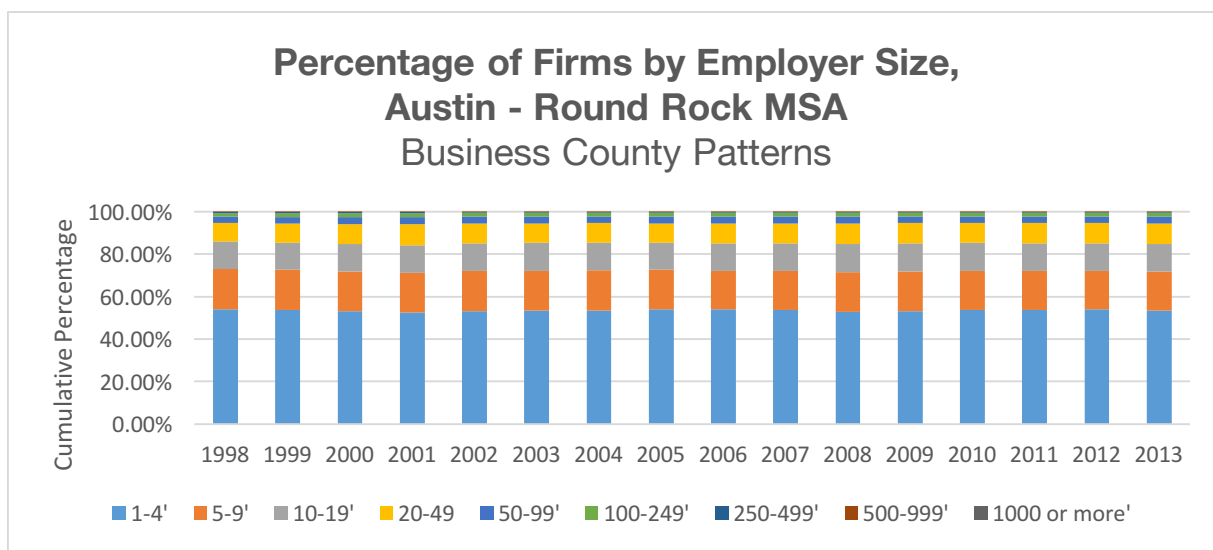
Sales Tax

While employment has been increasing in the Austin-Round Rock, Texas MSA over the past few years, the amount of gross sales in the MSA has also grown at a faster rate when compared to the U.S. Gross Domestic Product. The amount of gross sales dropped in 2009 due to the recession, but has been rising since. However, over time, the proportion of gross sales subject to sales tax has slightly declined from around 35% in 2002 to 31% in 2014.

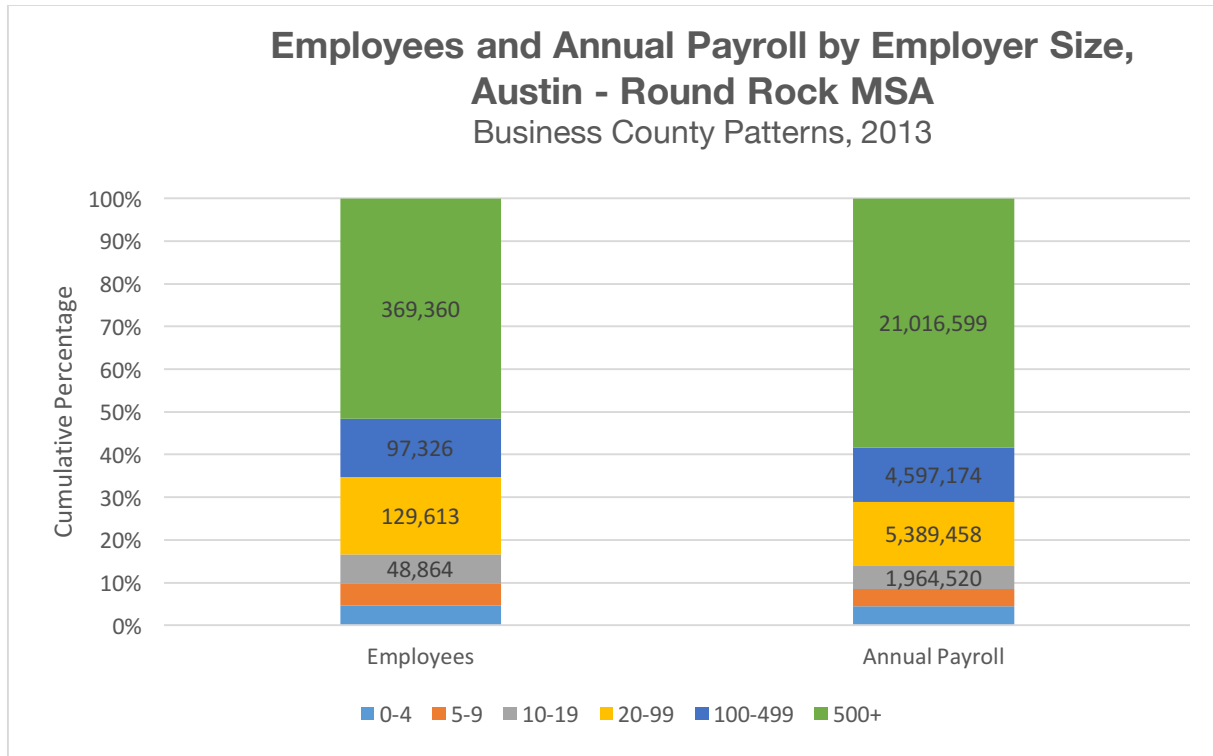


Employer Size

The distribution of employer size in Austin-Round Rock MSA shows that over half (55%) of the firms in the MSA comprise 1 to 4 people, while only around 0.08% of the firms hire 1,000 or more people. The majority (97.7%) of firms in the MSA employed fewer than 100 people. These percentages have remained quite consistent over time.

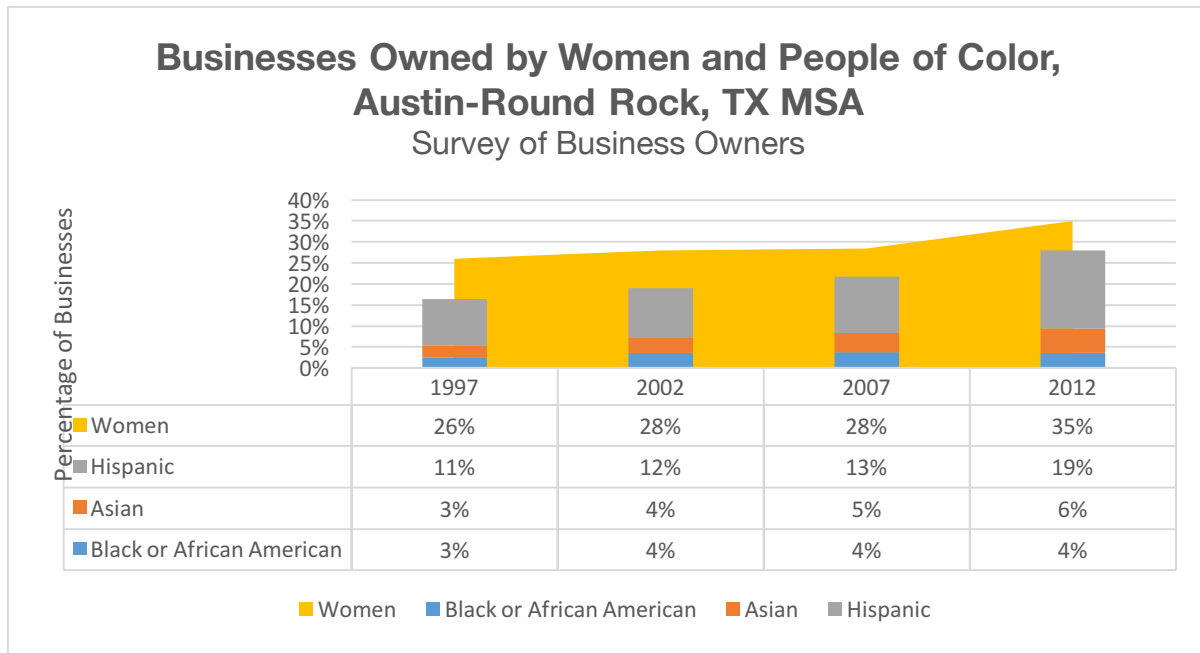


Though only about 1% of the total firms employed more than 500 employees, these large firms employed a little over 50% of the labor force in the Austin-Round Rock MSA, and they accounted for around 60% of the annual payroll in 2013. Mid-size employers (firms with 20 to 500 employees) accounted for around 32% of the employees in 2013. Small firms hiring fewer than 20 employees accounted for about 85% of the total firms in the MSA, while contributing to only about 16% of the total employment and 14% of the annual employee payroll.



Businesses Owned by Women and People of Color

Businesses owned by women and people of color have increased in the Austin-Round Rock MSA over time. The percentage of businesses owned by women has increased over time by 9%, growing from 26% in 1997 to 35% in 2012. Similarly, the percentage of businesses owned by people of color – African Americans, Asians, and Hispanics – has increased over time by 12%, growing from 17% in 1997 to 29% in 2012. There has been an increase of 8% in the proportion of Hispanic business owners, but the proportion of African American and Asian business owners has only increased by 1% and 3%, respectively, over a period of 15 years.



Exports

Exporting industries tend to generate both regional costs and benefits as well as inter-region competition. Coordinating policies and incentives across local levels to produce a truly collaborative economic framework for every municipality, county and school district is challenging to design and implement, much less balance with natural resource availability and equity trade-offs.

Annual Export Turnover

Comparing the Austin – Round Rock MSA to other comparable metropolitan statistical areas shows that the Austin – Round Rock MSA generates much greater annual export turnover, as compared to Nashville, TN and Columbus, OH, two MSA’s comparable to Austin in population size. However, the annual export turnover generated by the Austin – Round Rock MSA has remained steady over a sustained period of time and has not shown any considerable growth, despite a high expected population growth rate of 21% from 2010 to 2020. On the other hand, both Nashville and Columbus have seen substantial increases in their annual export turnover over time.

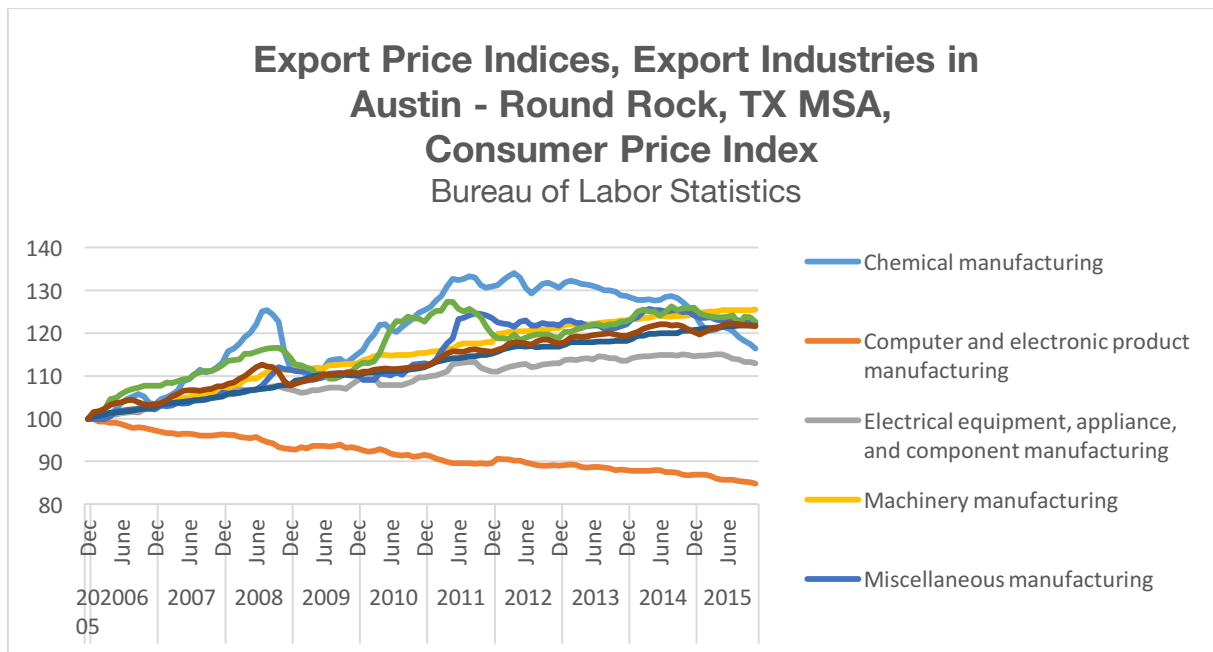


A breakdown of the annual exports turnover of the Austin-Round Rock MSA shows that Computer and Electronic Product Manufacturing accounted for 56% of the total export turnover in 2014 and has been the most important contributor to export revenues in Austin. Manufacturing is another important export sector with machinery, chemical and miscellaneous manufacturing contributing around 35% to the total annual export turnover in 2014. While the manufacturing sector was seriously affected by the 2008 recession, it has been able to revive exports over time.



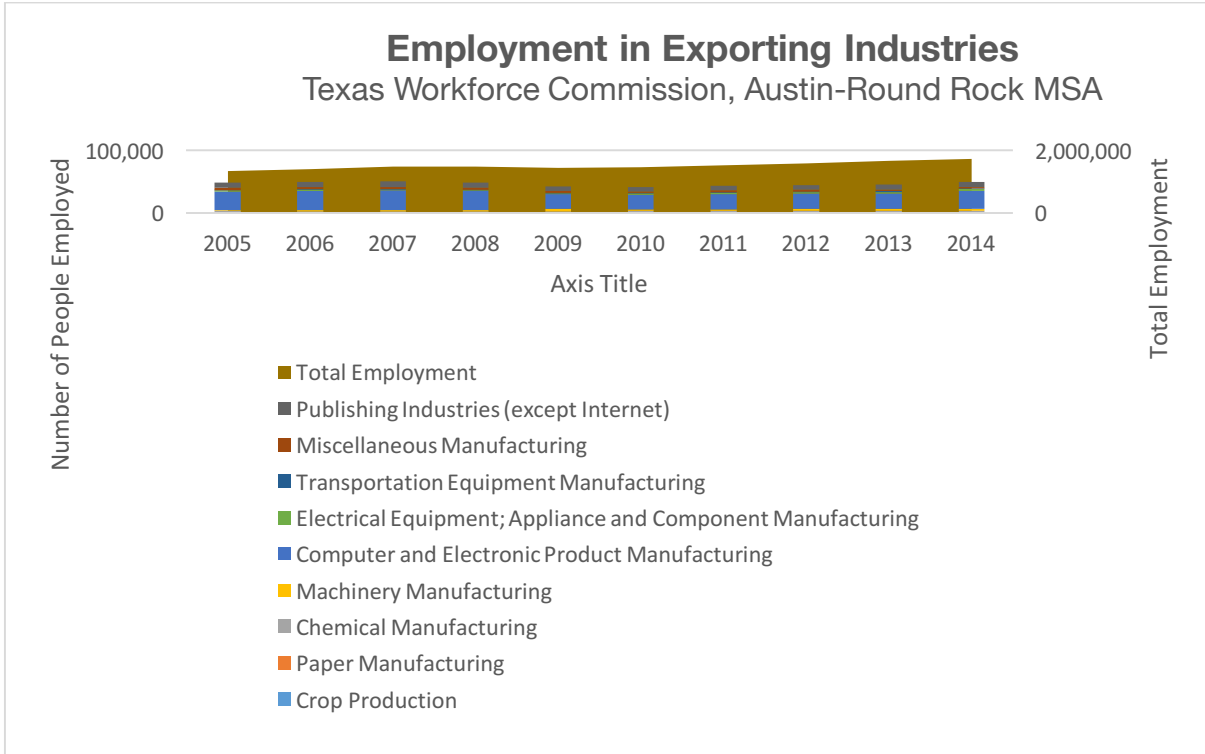
Export Price Indices

Though computer and electronic product manufacturing accounts for about half of the total export turnover, the Export Price Index for computer and electronic products has been steeply declining since 2005. This means that each year, additional computer and electronic products have to be sold to maintain the same amount of gross export revenues over time. The price for the second most important industry – machinery, chemical, and miscellaneous manufacturing - has risen over time, though the Export Price Index for chemical manufacturing has shown a decline in recent years.



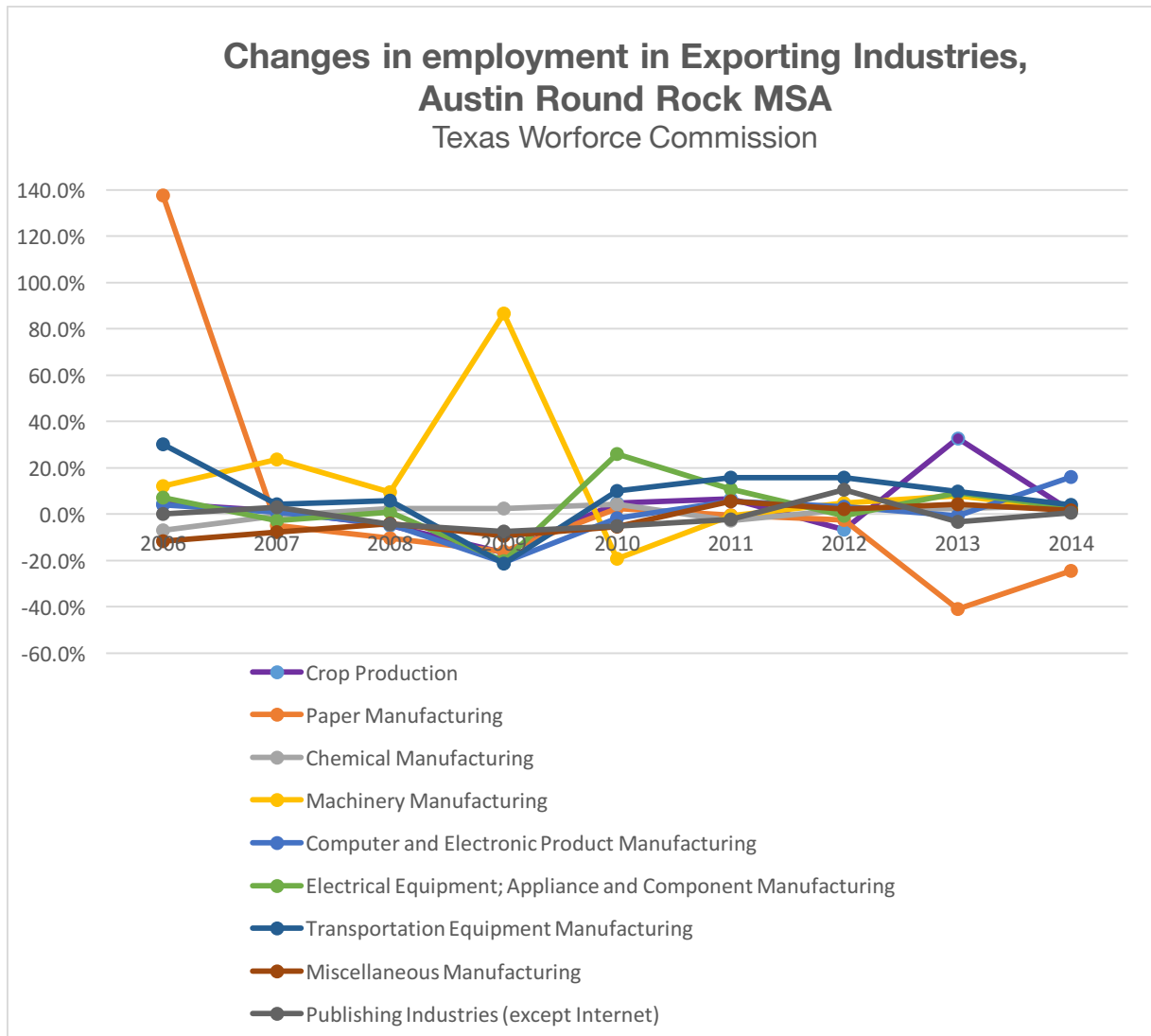
Employment in Export Industries of Austin – Round Rock, TX MSA

Total employment in Export Industries in the Austin – Round Rock MSA only accounted for 2.8% of the total employment in the area in 2014. This indicates that employment levels in the MSA are not likely to be highly dependent on an international trade environment.



Changes in Employment in Export Industries

Among the Export Industries in the Austin-Round Rock MSA, employment has been declining steeply in the paper manufacturing industry in recent years, with a 40% and 25% reduction in employment in 2013 and 2014, respectively. While employment rose substantially in the manufacturing sector in 2009, perhaps to offset the decline in employment due to the recession, the manufacturing sector has not seen a growth in employment in recent years.

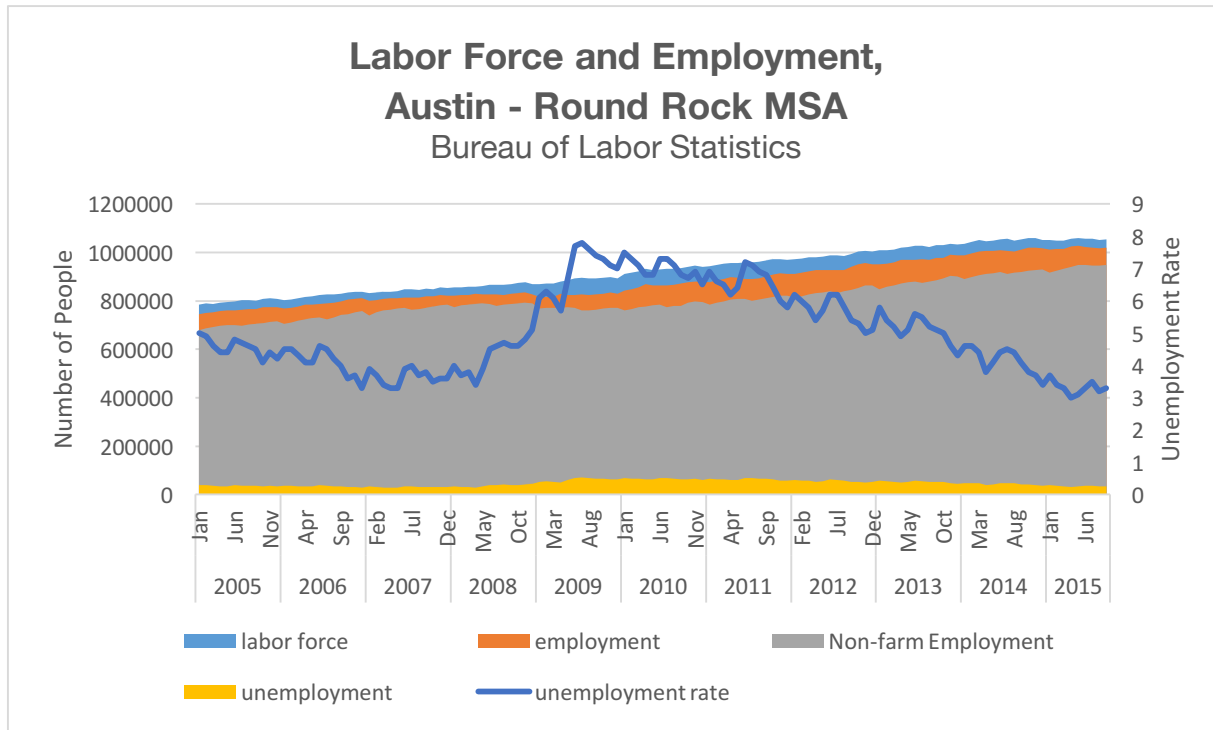


Jobs and Labor

The labor force is made up of individuals who base their choices on a broader set of factors than just job availability – the affordability of a region, the perception of access to opportunities, and quality of life. In the global economy, regions sell the connections between their emerging industries and what makes their region attractive to the labor force to fill jobs in those industries. Incorporating sustainability into this pursuit includes training current residents to be able to take emerging jobs such that the region does not become dependent on new workers moving in. Moreover, sustainability means the area must plan for growing disparity in social equity. This includes not only attracting more primary jobs but also comprehending secondary job workers’ needs for affordable housing, childcare, health care, and transportation.

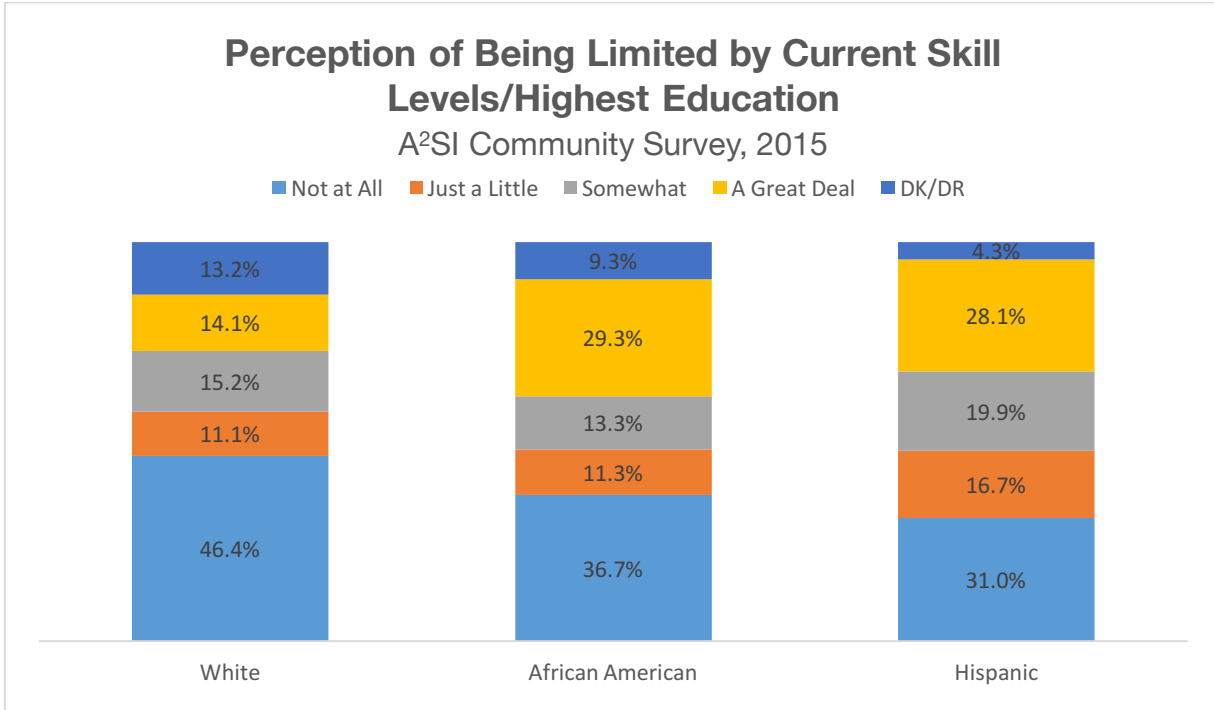
Labor Force and Employment

Labor force, overall employment, and non-farm employment in the Austin-Round Rock MSA have consistently increased over time from 2005 to 2015. This can be attributed to the high population growth in Austin. The recession of 2008 affected the unemployment rate, which almost doubled from 2007 (at 4%) to 2009 (about 8%). The unemployment rate in recent years has been steadily declining, and as of September 2015, is at its lowest rate in a decade at 3.2%.



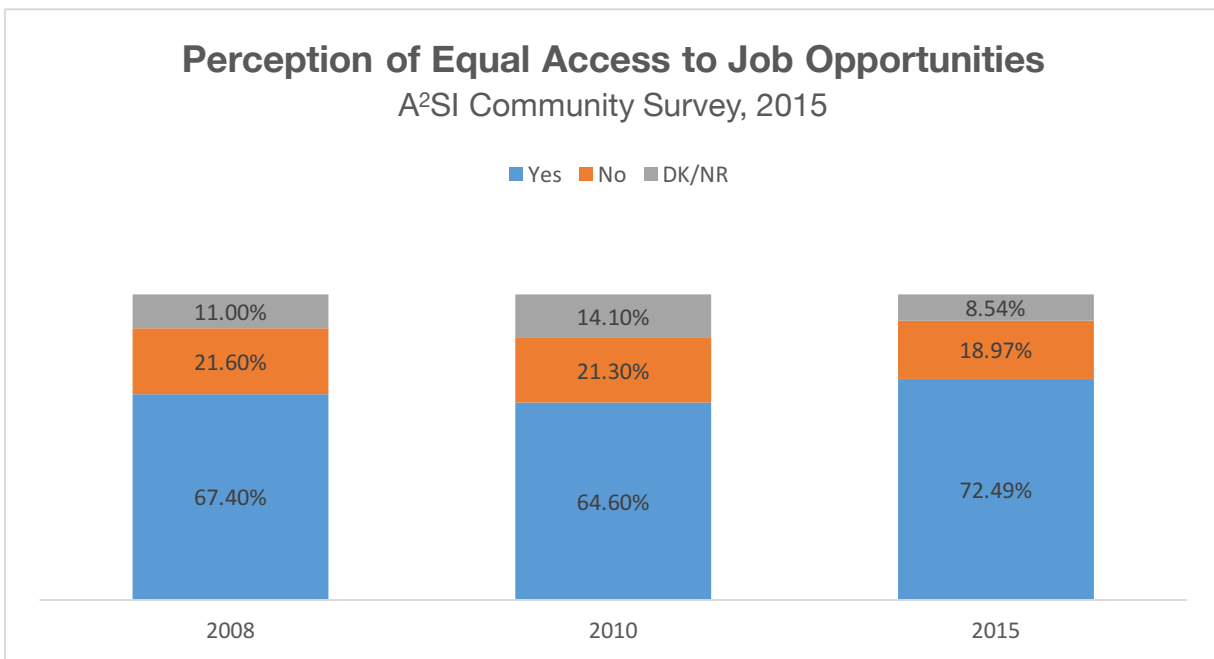
Perceptions of Personal Skills and Opportunities

As shown below, in 2015, 42.6% of African Americans and 48% of Hispanics felt at least somewhat limited by their skill level or attained education when it came to having a kind of job or position they would like in the next 5 years. This is compared to 29.3% of White respondents. These numbers reflect an increase from 2012, where the respective percentages for African Americans, Hispanics, and Whites were 34.1%, 49.6%, and 24.3%, respectively. This shows that a greater share of people of color feels that way, particularly among the Black community, which is evidence of the increasing economic racial disparities.



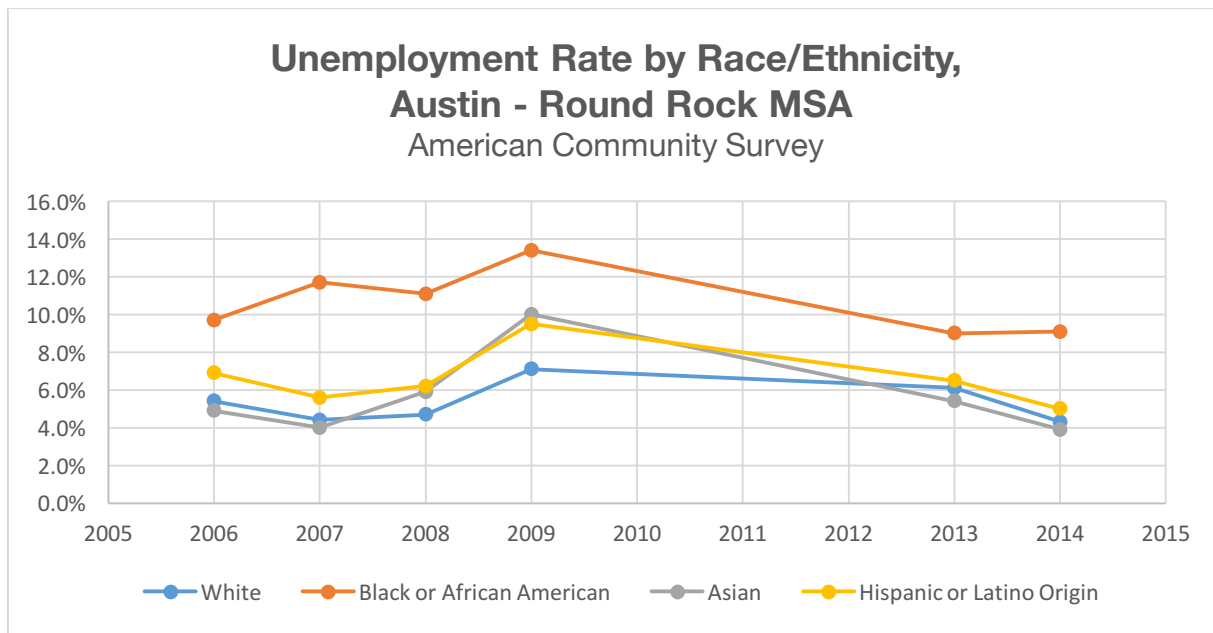
Perception of Equal Access to Jobs

Between 2006 to 2010, fewer people believed they had equal access to job opportunities as others with similar skills. However, there is a change in this trend in 2015, as the amount of those who perceived equal access increased to 72.5% (from 64.6% in 2010). This is most likely due to the recovery of the economy after the 2008 recession. This is also consistent with the decreasing unemployment rate between 2010 to 2015.



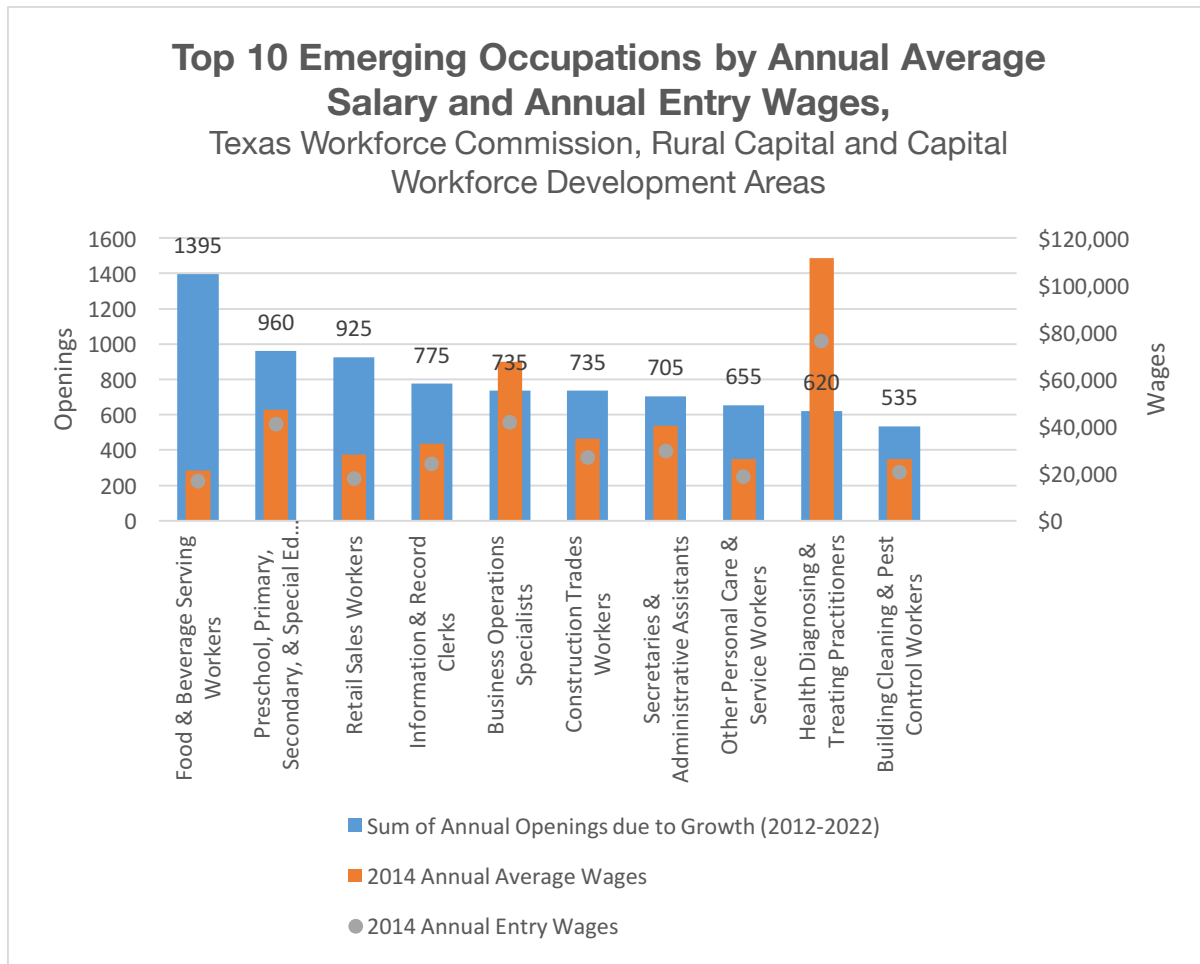
Employment by Race / Ethnicity

Unemployment rates for people of color, especially for the African American and Hispanic population, has been consistently higher than the unemployment rate for the White population. One noteworthy pattern in the Austin-Round Rock MSA is that while the unemployment rate for Asians in pre- and post-recession years is lower than the unemployment rate for Whites, the 2008 recession affected the employment rate of Asians much more severely than the employment rate of Whites. Specifically, the unemployment rate for Asians rose from 4.0% in 2007 to 10.0% in 2009, while the unemployment rate for Whites increased from 4.4% to 7.1% over the same time period.



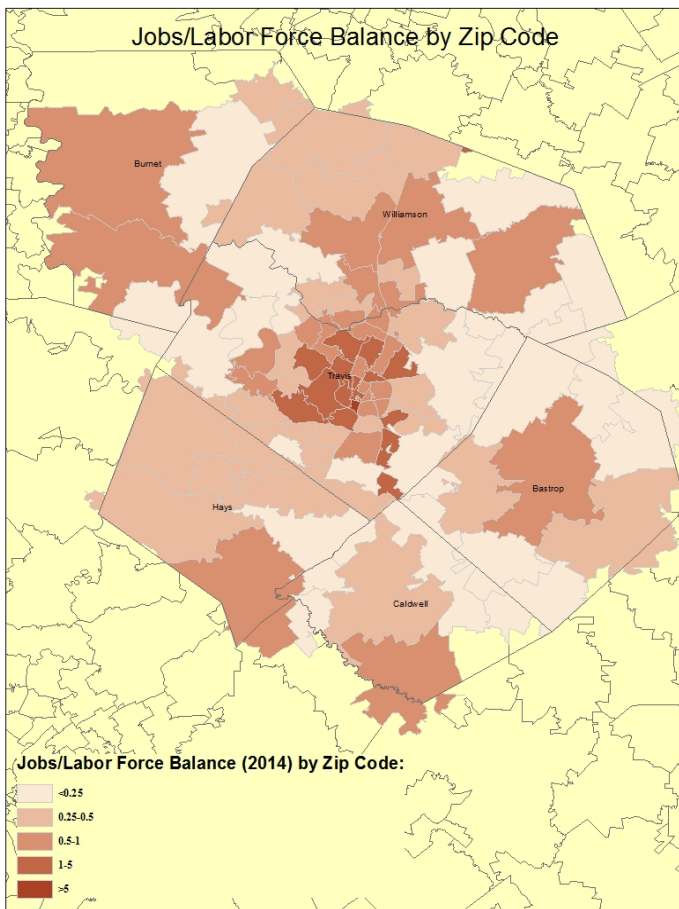
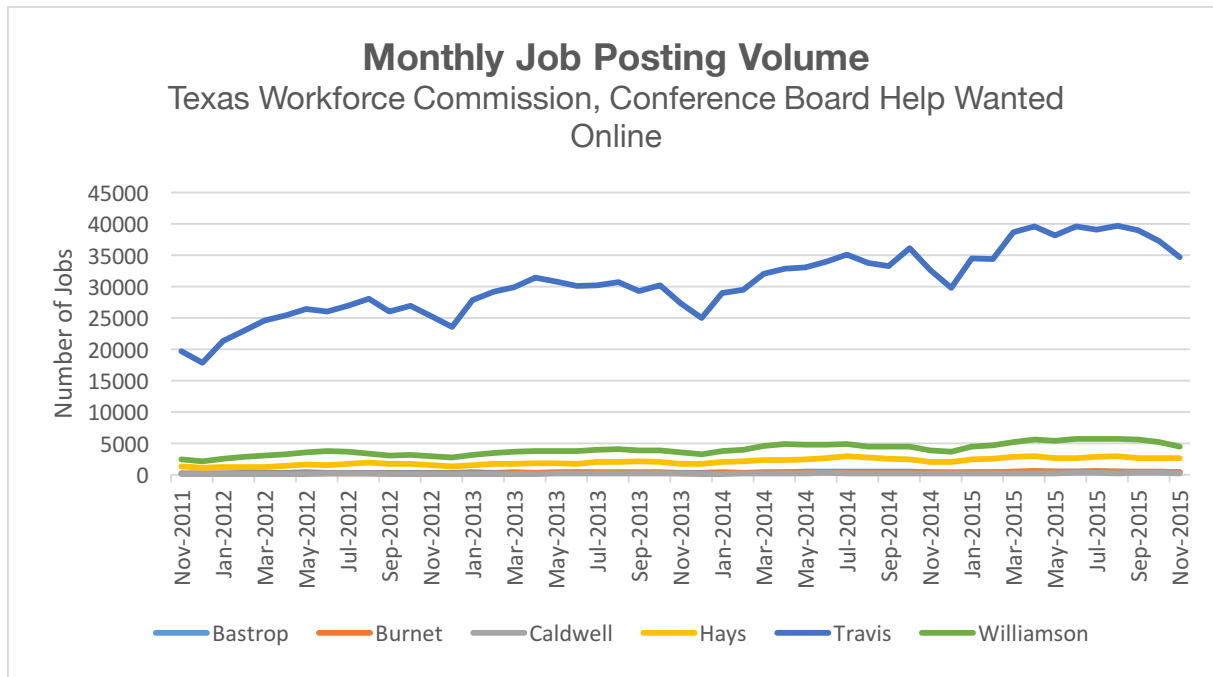
Top Ten Emerging Occupations

Food & Beverage Serving Workers, Teachers and Retail Sales Workers are the top three growing occupations in the Rural Capital and Capital Workforce Development Areas. However, the annual wages for these top occupations are lower than the mean and median annual wages in these two workforce development areas. Only two out of the Ten Emerging Occupations, Business Operations Specialists and Health Diagnostic and Training Practitioners, have higher annual and entry wages than the mean and median wages in Austin. Growth of more professional and highly paid occupations can be expected to improve the economic conditions in the area.



Monthly Job Posting Volume

Within the Austin area, a majority of jobs are posted within Travis County. Monthly job postings have been increasing since November of 2011, which is a positive and needed trend to employ the rapidly growing population of Travis County. However, there are relatively fewer job openings in other counties within the region. Though there are fewer job openings in counties other than Travis, job postings have almost doubled from November 2011 to November 2015 in all of the other five counties.



The map to the left shows the number of jobs available per person in labor force by zip codes in 2014. Though each county has a region where jobs are more concentrated, there are large patches of areas where the jobs and the labor force balance is less than 1. This increases the need for people to commute long distances for work.

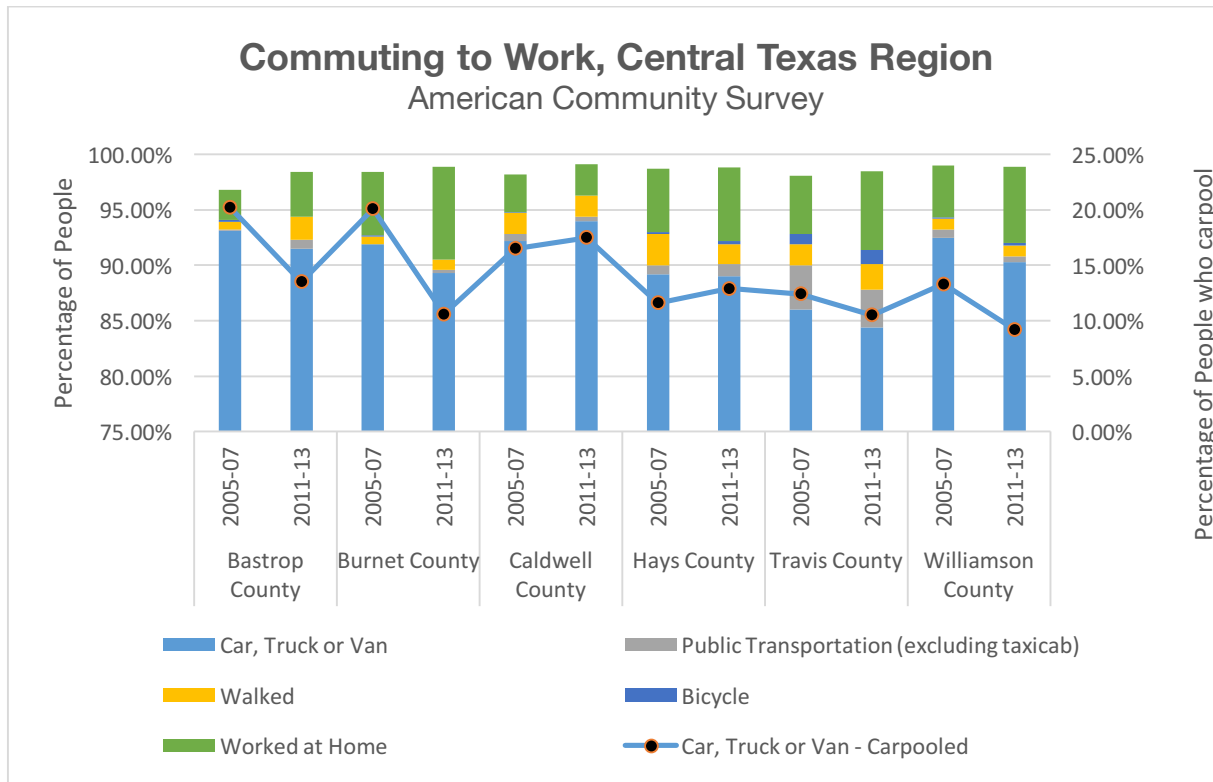
*Data Source: American Community Survey and County Business Patterns

Commuting to Work

Car, Truck, or Van remain the major mode of commuting to work for residents in the Austin area. However, there has been some reduction in the percentage of people who travel to work in a car, truck or van in all counties, except for Caldwell County. Moreover, there has been a drop in the percentage of people who carpool when they use a car, truck, or van for driving to work in all counties, except Caldwell and Hays. A positive trend is the substantial increase in people working at home

across all counties, except for Caldwell County, given the increasing traffic congestion on roads in the Austin area. While public transportation is not a significant means of commuting to work in the Austin area, around 5% of workers take public transportation in Travis County. The average commute time to

work for an individual in Austin-Round Rock MSA was 26.5 minutes in 2014, an increase of 5.6% from 2005.

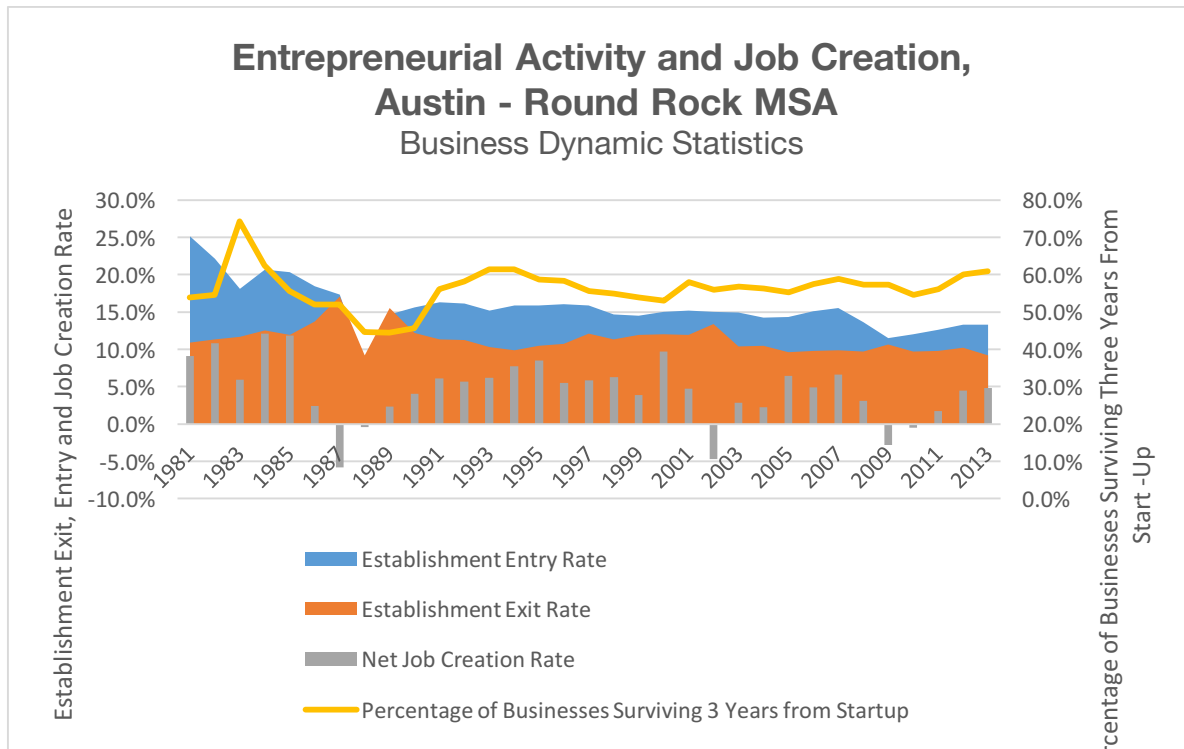


Entrepreneurship and Innovation

Throughout history, human persistence and ingenuity have proven capable of solving the most intractable problems facing each generation. The achievement of sustainability, at every scale from household to globe, will rely on the creativity of individuals both in invention and lifestyle. Entrepreneurship generates jobs by creating businesses that offer new goods and services. Innovation improves productivity in the economy through growth.

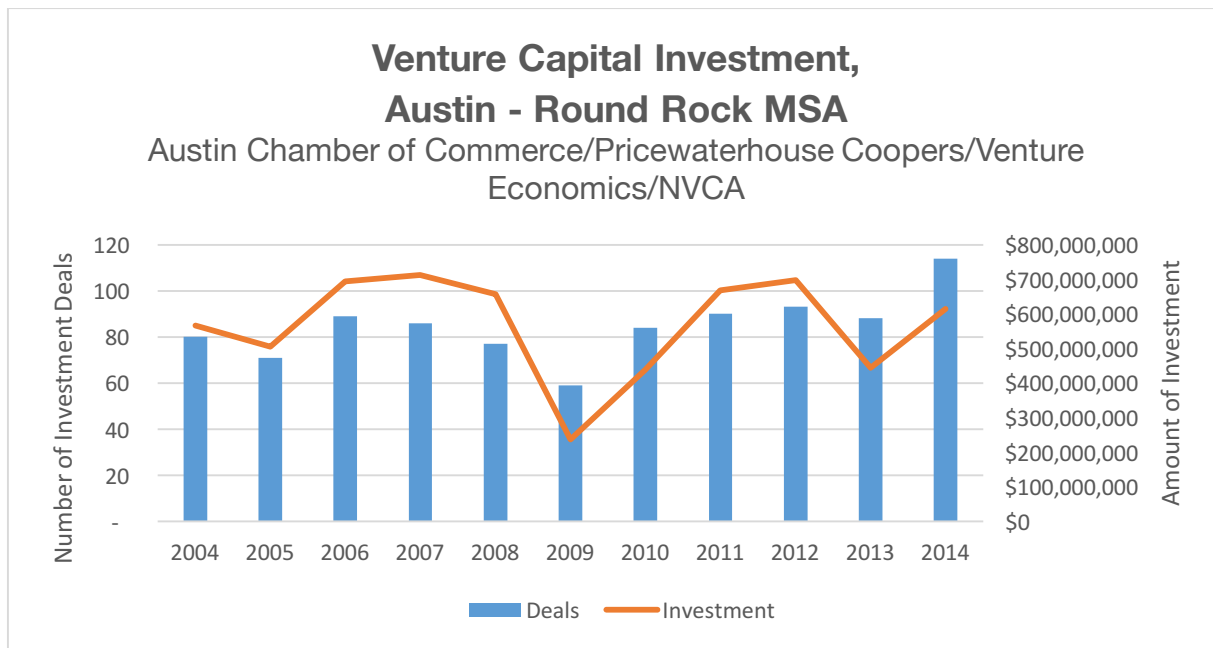
Entrepreneurship and Job Creation

Though the economy of the Austin-Round Rock MSA has been showing positive trends, the rate of establishments entering into the MSA has declined from 25% in 1981 to 13.3% in 2013. The establishment exit rate, however, has remained consistent over time, with some fluctuations. The net job creation rate follows a cyclical pattern, like the Business Cycle Index, and has been increasing in recent years. About 60% of the businesses in the MSA were able to survive three years after entry; this percentage peaked in 2013, hitting its highest value in a decade.



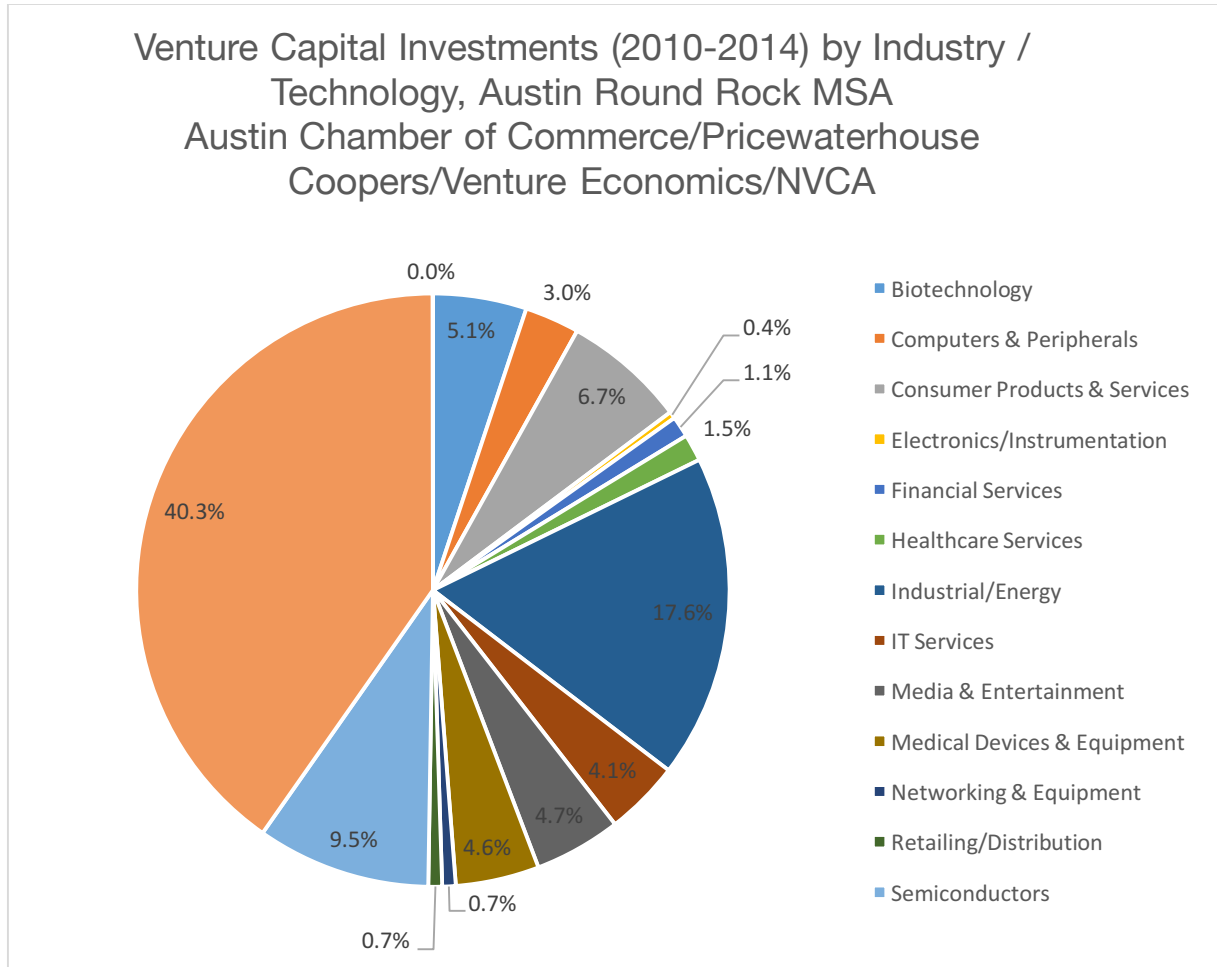
Venture Capital Investment

The number of Venture Capital Investment deals has increased over time, though the Austin – Round Rock MSA faced a considerable setback during the 2008 recession. In spite of an increase in the number of deals, the amount of venture capital investments has not substantially increased over the decade from 2004 to 2014. The amount of venture capital investment was also substantially affected by the 2008 recession, bringing the investments down from \$700 million in 2008 to \$300 million in 2009.



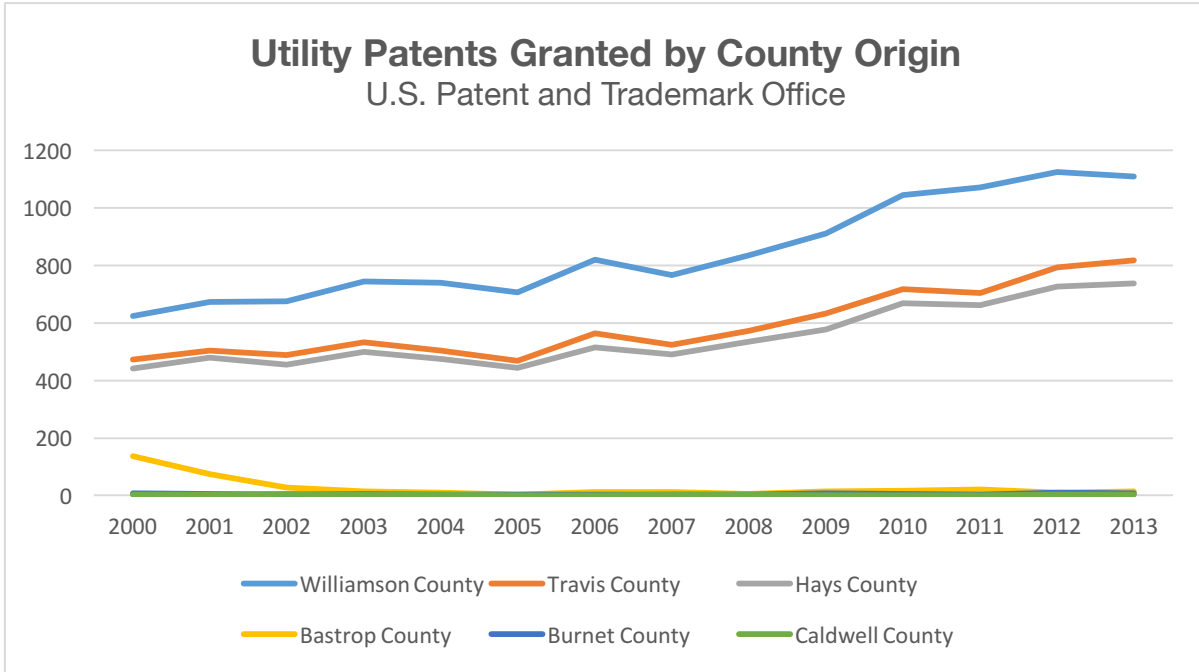
Software is the predominant venture capital industry, and attracted two-fifths (40.3%) of the entire venture capital investments in the Austin-Round Rock MSA from 2010 to 2014. This was followed by

Industrial/Energy (17.6%), Manufacturing of Semi-Conductors (9.5%), and Consumer Products and Services (6.7%), which collectively accounted for a good portion of venture capital investments.

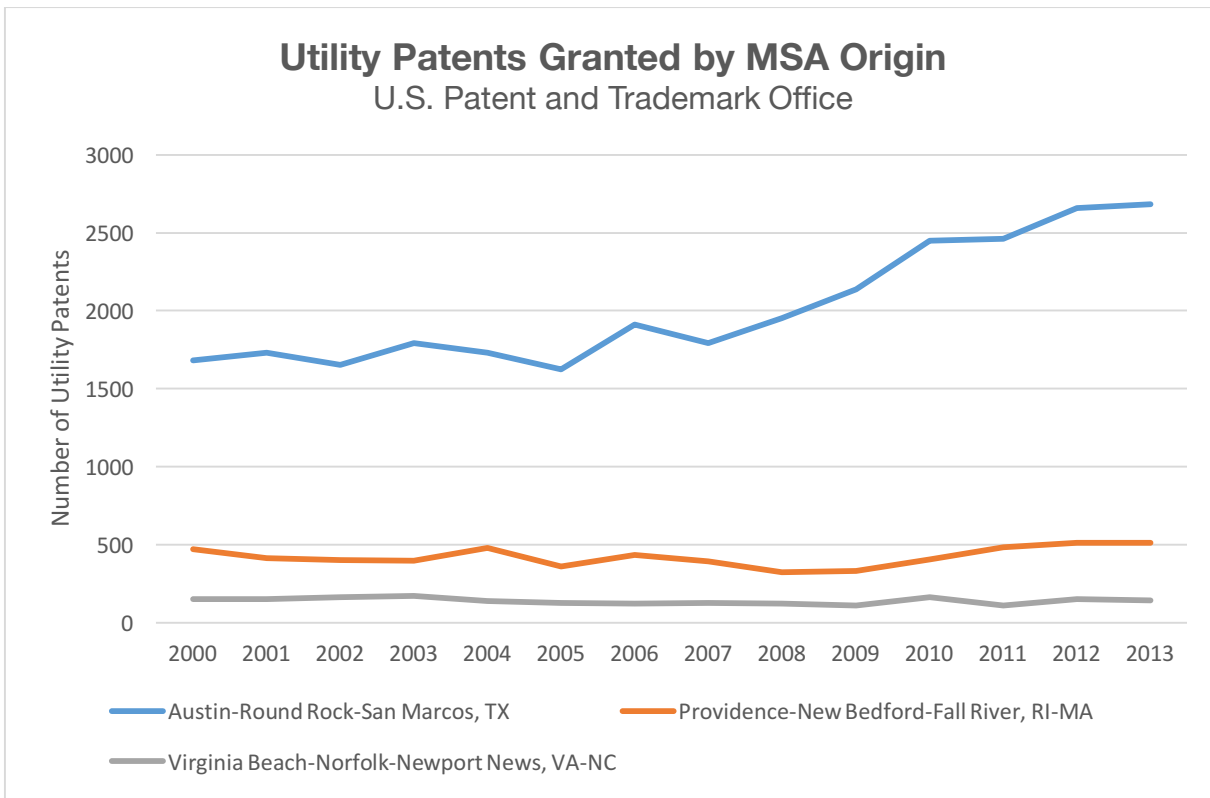


Utility Patents

Utility patents are issued to new inventions or innovational improvements to a machine, process, or product. Williamson County leads the Austin area in innovation and inventions, followed by Travis and Hays counties. The innovative environment in these counties has been improving over time and the number of annual utility patents has increased from 2000 to 2013 across Williamson (625 to 1109), Travis (473 to 819), and Hays (441 to 738) counties. Minimal utility patents were generated by the other three counties (Bastrop, Burnet, and Caldwell) over the same time period.

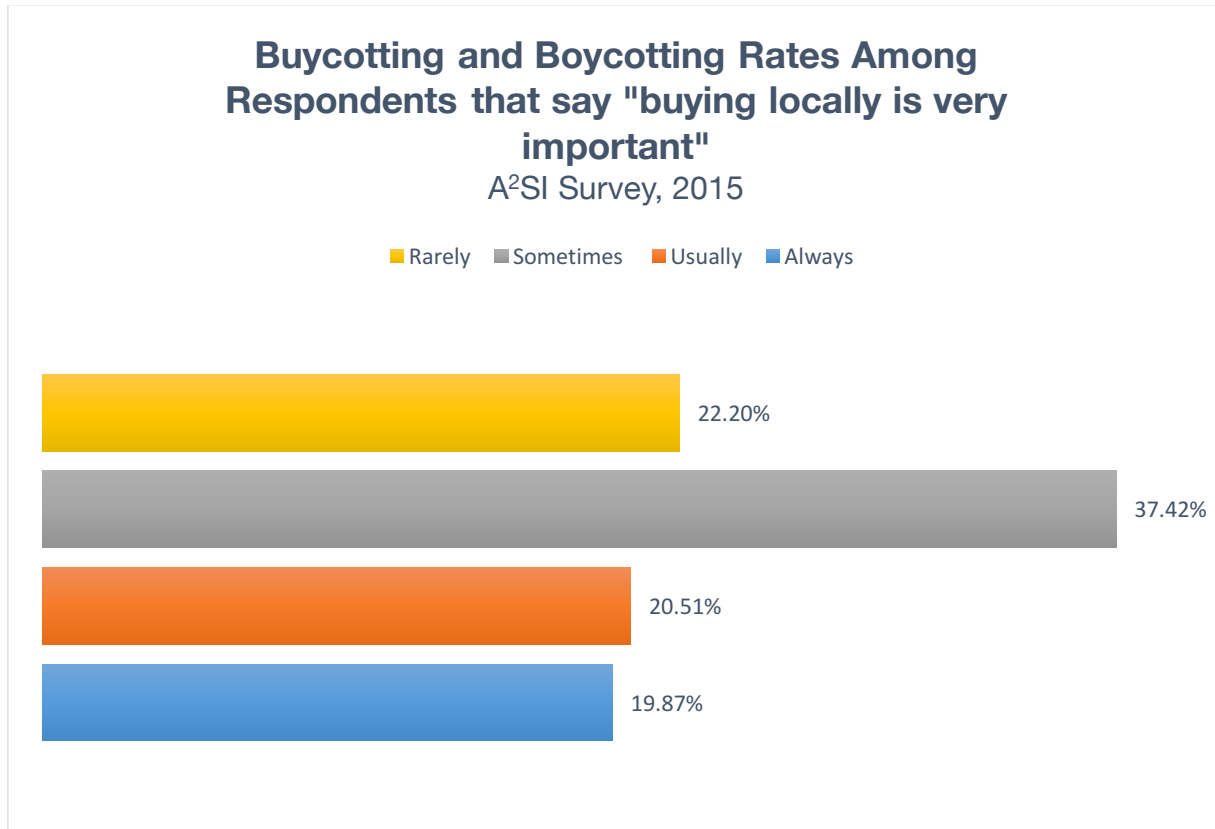


The Austin-Round Rock-San Marcos MSA has been generating a considerably higher number of utility patents when compared to other metropolitan statistical areas with similar populations (e.g., Providence-New Bedford-Fall River, RI and Virginia Beach-Norfolk-Newport News, VA).



Buying Local

Among individuals who claimed that buying locally is very important, the percentage of individuals who reported they always or usually buy or purposely not buy a product, service, brand, or company for ethical, political, and/or environmental reasons is only 40.4%. This shows that there is either a lack of knowledge in locally created goods, or a lack of persistence among individuals who perceive buying locally as important.



Summary and Conclusion

Communities today face real challenges in a globalizing world and economy. Jobs, incomes, education, proximity of family members, and general well-being are all tied to a community economy's effectiveness, dynamism, and resiliency. More than ever before, residents, public and private employers, and civil servants are actively involved in critically examining their local economies as they plan their economic futures. To be successful, everyone involved needs to know how their economy works--its strengths, weaknesses, and hidden potential. This set of indicators can help policy makers, foundations, nonprofits, and the general public make informed decisions with regards to sustainability in the Austin area based on economic indicators.

Appendix A: Glossary

Business Cycle Index – An economic statistic that helps gauge the current state of the Texas economy. The index is constructed using payroll employment, gross state product and the unemployment rate.

Consumer Price Index –The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

Establishment – A single physical location where business is conducted or where services or industrial operations are performed.

Extremely Low Income Limit – Very low-income families whose income do not exceed the greater of 30 percent of the median family income for the area or the federal poverty guidelines as published by the Department of Health and Human Services. The poverty guidelines are capped by the Very Low-Income Limit.

Family Income – The sum of the income of all family members 15 years and older living in the household. Families are groups of two or more people (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family.

Free or Reduced Meals Program – The data on this topic are designed to measure the number of households where at least one member of the household received free or reduced-price lunches. The National School Lunch Program is designed "to help safeguard the health and well-being of the Nation's children by assisting the states in providing an adequate supply of foods" (P.L. 79-396, the National School Lunch Act of 1946) for all children at moderate cost. Additional assistance is provided for children determined by local school officials to be unable to pay the "full established" price for lunches. Like the Food Stamp program, the National School Lunch Program is administered by the Food and Nutrition Service of the U.S. Department of Agriculture through state educational agencies or through regional USDA nutrition services for some nonprofit private schools.

Gross Sales – The total amount of all sales, leases and rentals of tangible personal property and all labor and service charges - does not include the amount of any taxes collected

Household Income – The sum of the income of all people 15 years and older living in the household. A household includes related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit, is also counted as a household.

Labor Force – The labor force includes all persons classified as employed or unemployed in accordance with the definitions contained in this glossary.

Mean Income – Mean income is the amount obtained by dividing the total income of a particular statistical universe by the number of units in that universe. Thus, mean household income is obtained by dividing total household income by the total number of households. For the various types of income, the means are based on households having those types of income.

Median Income – The median income divides the income distribution into two equal groups, one having incomes above the median, and other having incomes below the median.

Poverty – Following the Office of Management and Budget's (OMB's) Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family (and every individual in it) or unrelated individual is considered in poverty.

There is now a second measure of poverty called the Supplemental Poverty Measure or "SPM." Every year since 2010, the Census Bureau has released a report describing this measure. The SPM extends the official poverty measure by taking account of government benefits and necessary expenses like taxes that are not in the official measure. It does not replace the official poverty measure and will not be used to determine eligibility for government programs.

Rural Capital Area – Workforce Development Area comprising Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano and Williamson counties.

Unemployment Rate – The unemployment rate represents the number unemployed as a percent of the labor force.

Urban – Areas of densely developed territory, specifically all territory, population and housing units in urbanized areas and urban clusters. "Urban" classification cuts across other hierarchies except for census block and can be in metropolitan or non-metropolitan areas.

Utility Patent – Utility patent may be granted to anyone who invents or discovers any new, useful, and nonobvious process, machine, article of manufacture, or composition of matter, or any new and useful improvement thereof.

Venture Capital – A segment of the private equity industry which focuses on investing in new companies with high growth potential and accompanying high risk

Wage – Hourly straight-time wage rate or, for workers not paid on an hourly basis, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and nonproduction bonuses such as lump-sum payments provided in lieu of wage increases.

Appendix: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Economy	Household Income	Mean and Median Annual Family Income; Poverty Threshold	U.S. Census Bureau, U.S. Department of Housing and Urban Development	U.S. Census Bureau, American Community Survey 1-Year Estimates, Indicator: S1901 INCOME IN THE PAST 12 MONTHS (IN INFLATION-ADJUSTED DOLLARS): Selected years, 2005 through 2014, American Fact Finder. Retrieved April 27, 2016 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_1YR_S1901&prodType=table U.S. Department of Housing and Urban Development, Income Limits, "Data for Section 8 Income Limits in MS EXCEL": Selected years, 2005 through 2014, HUD USER. Retrieved April 27, 2016 from https://www.huduser.gov/portal/datasets/il/il14/index.html
Economy	Household Income	Mean and Median Annual Household Income by County	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 1-Year Estimates, Indicator: S1901 INCOME IN THE PAST 12 MONTHS (IN INFLATION-ADJUSTED DOLLARS): Selected years, 2005 through 2014, American Fact Finder. Retrieved April 27, 2016 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_12_1YR_S1901&prodType=table
Economy	Household Income	Average Wage	U.S. Bureau of Labor Statistics	U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages -- Data Files. (n.d.). Retrieved December 8, 2015, from http://www.bls.gov/cew/datatoc.html Bureau of Labor Statistics, InflationData.com, Historical Consumer Price Index (CPI-U) Data [Distributor], Retrieved April 8, 2016 from http://inflationdata.com/Inflation/Consumer_Price_Index/HistoricalCPI.aspx?reloaded=true
Economy	Household Income	Distribution of Annual Household Income	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 3-Year Estimates, Indicator: S1901 INCOME IN THE PAST 12 MONTHS (IN INFLATION-ADJUSTED DOLLARS): Selected year, 2013, American Fact Finder. Retrieved April 27, 2016 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_3YR_S1901&prodType=table
Economy	Household Income	Percentage of Families Under Poverty	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 3-Year Estimates, Indicator: S1701 POVERTY STATUS IN THE PAST 12 MONTHS: Selected years, 2007, 2010 and 2013, American Fact Finder. Retrieved April 27, 2016 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_3YR_S1701&prodType=table
Economy	Household Income	Family Poverty in the Suburbs	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 5-Year Estimates, Indicator: S1701 POVERTY STATUS IN THE PAST 12 MONTHS: Selected years, 2009 and 2014, American Fact Finder. Retrieved April 27, 2016 from

				http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_3YR_S1701&prodType=table
Economy	Household Income	Percentage of Students in Free and Reduced Lunch Program	Texas Education Agency	Texas Education Agency, Program Reports, Years: 2004 through 2015, Retrieved Feb 1, 2016 from: Kathleen Cameroon, Public Information Coordinator, TEA Public Information Office
Economy	State of Economy	Texas Metro Business Cycle Index	Dallas Fed	Federal Reserve Bank of Dallas, Austin-Round Rock Business Cycle Index, Monthly data [DataFile]. Retrieved Dec 14, 2015 from http://www.dallasfed.org/microsites/research/econdata/auscoini.cfm
Economy	State of Economy	Job Growth in Top 10 Industry Sectors	Texas Workforce Commission	Texas Workforce Commission, Employment Estimates (CES), Texas LMCI TRACER, Data Link. (n.d.). Retrieved January 27, 2016, from http://www.tracer2.com/cgi/dataAnalysis/AreaSelection.asp?tableName=Ces
Economy	State of Economy	Gross Sales and Gross Sales Subject to State Tax	Texas Comptroller of Public Accounts, U.S. Department of Commerce	Texas Comptroller of Public Accounts, Quarterly Sales Tax Report. (n.d.). Reports by MSA. Retrieved February 1, 2016, from https://mycpa.cpa.state.tx.us/allocation/HistSalesResults.jsp US Department of Commerce, B. E. A. (n.d.). Bureau of Economic Analysis. National Income and Product Accounts Tables, Table 1.1.5. Gross Domestic Product. Retrieved May 2, 2016, from http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&904=2002&903=5&906=a&905=2015&910=x&911=0
Economy	Diversity of Economy	Percentage of Firms by Employer Size	Business County Patterns	United States Census Bureau, County Business Patterns (CBP), Data Sets [DataFile] (n.d.). Retrieved December 21, 2015, from http://www.census.gov/econ/cbp/index.html
Economy	Diversity of Economy	Employees and Annual Payroll by Employer Size	Business County Patterns	United States Census Bureau, Statistics of U.S. Business, Business County Patterns, Historical Data Tables by Enterprise Size – 2013, Table Name: Number of Firms, Number of Establishments, Employment, and Annual Payroll by Enterprise Employment Size for Metropolitan Areas , NAICS Sectors: 2013 [DataFile] (n.d.) Retrieved May 2, 2016, from https://www.census.gov/econ/susb/data/susb2013.html
Economy	Diversity of Economy	Minority/ Women Owned Businesses	Survey of Business Owners	U. S. Census Bureau, C. S. D. (n.d.). 2012 Survey of Business Owners Data. SBO Tables, SBO- Characteristics of Business Owners: Selected Years: 1197, 2002, 2007 & 2012. American Factfinder [Distributor], Indicator SB1200CSA01 Statistics for All U.S. Firms by Industry, Gender, Ethnicity and Race. Retrieved December 21, 2015, from http://www.census.gov/econ/sbo/getdata.html

Economy	Exports	Annual Export Turnover by Metropolitan Statistical Area	International Trade Administration	U.S. Department of Commerce, International Trade Administration, Exports by Metropolitan Area (n.d.). Retrieved February 1, 2016, from http://tse.export.gov/metro/MetroChartDisplay.aspx?ReportID=1&Referrer=SelectReports.aspx&DataSource=Metro&ReportOption=Chart
Economy	Exports	Annual Export Turnover by Industry Classification	International Trade Administration	U.S. Department of Commerce, International Trade Administration, Metropolitan Exports by NAICS. (n.d.). Retrieved February 1, 2016, from http://tse.export.gov/metro/MetroChartDisplay.aspx?ReportID=5&Referrer=SelectReports.aspx&DataSource=Metro&ReportOption=Chart
Economy	Exports	Export Price Indices	Bureau of Labor Statistics	United States Department of Labor, Bureau of Labor Statistics, Table 4. U.S. export price indexes for selected categories of goods. Retrieved Dec 14, 2015 from: http://www.bls.gov/web/ximpim/nicexp.htm
Economy	Exports	Employment in Export Industries of Austin MSA	Texas Workforce Commission	Texas Workforce Commission, Employment Estimates (CES), Texas LMCI TRACER, Data Link. (n.d.). Retrieved January 27, 2016, from http://www.tracer2.com/cgi/dataAnalysis/AreaSelection.asp?tableName=Ces
Economy	Exports	Change in employment in export Industries of Austin MSA	Texas Workforce Commission	Texas Workforce Commission, Employment Estimates (CES), Texas LMCI TRACER, Data Link. (n.d.). Retrieved January 27, 2016, from http://www.tracer2.com/cgi/dataAnalysis/AreaSelection.asp?tableName=Ces
Economy	Labor and Job Availability	Labor Force and Employment, Austin – Round Rock, TX MSA	Bureau of Labor Statistics	Bureau of Labor Statistics Data. Databases, Tables & Calculators by Subject, Local Area Unemployment Statistics. (n.d.). Retrieved February 3, 2016, from http://data.bls.gov/timeseries/LAUMT481242000000006?data_tool=XGtable
Economy	Labor and Job Availability	Top 10 Emerging Occupations	Texas Workforce Commission	Texas Workforce Commission, Texas LMCI TRACER, Data Link. Occupational Projections (n.d.). Retrieved December 22, 2015, from http://www.tracer2.com/cgi/dataanalysis/occpriselection.asp?menuchoice=ocprj
Economy	Labor and Job Availability	Monthly Job Posting Volume	Texas Workforce Commission	The Conference Board Help Wanted Online, Texas Workforce Commission[Distributor], Monthly Job Posting Volume [DataFile]. Retrieved from Spencer Franklin, Labor Force Statistics, Labor Market and Career Information Department.
Economy	Labor and Job Availability	Commuting to Work	American Community Survey	U.S. Census Bureau, American Community Survey 3 – Year Estimates, Indicator: S0801 Commuting Characteristics by Sex, Selected Year: 2007 & 2013. Retrieved Dec 9, 2015 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_S2301&prodType=table

Economy	Labor and Job Availability	Jobs/Labor Force Balance by Zip Code	American Community Survey, County Business Patterns	U.S. Census Bureau, American Community Survey 5 -Year Estimates, Indicator S2301 Employment Status, Selected Year: 2014. Retrieved from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_S2301&prodType=table U.S. Census Bureau, County Business Patterns (CBP), Table: Zip Population and Employment. Retrieved May 4, 2016 from Chris Schrek, Director of Planning and Economic Development, Capital Area Council of Governments.
Economy	Labor and Job Availability	Unemployment Rate by Race/Ethnicity	American Community Survey	U.S. Census Bureau, American Community Survey 1 – Year Estimates, Indicator: S2301 Employment Status, Selected Year: 2006 through 2014. Retrieved Dec 9, 2015 from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_S2301&prodType=table
Economy	Entrepreneurship and Innovation	Entrepreneurial Activity and Job Creation	Business Dynamic Statistics	US Census Bureau Center for Economic Studies, P. 301-763-6460. (n.d.). US Census Bureau Center for Economic Studies, Business Dynamics Statistics page. Retrieved February 8, 2016, from http://www.census.gov/ces/dataproducts/bds/ Business Dynamic Statistics, Longitudinal Business Database 1977-2013. [DataFile]. Retrieved Dec 22, 2015 from Beverly Kerr, Vice President, Research, Austin Chamber of Commerce.
Economy	Entrepreneurship and Innovation	Venture Capital Investment	Austin Chamber of Commerce / Pricewaterhouse Coopers/Venture Economics/NVCA	The Greater Austin Chamber of Commerce [Distributor], Source: Pricewaterhouse Coopers/ Venture Economics/ National Venture Capital Association, Retrieved February 8, 2016, from http://www.austinchamber.com/index.php
Economy	Entrepreneurship and Innovation	Venture Capital Investment by Industry	Austin Chamber of Commerce / Pricewaterhouse Coopers/Venture Economics/NVCA	The Greater Austin Chamber of Commerce [Distributor], Source: Pricewaterhouse Coopers/ Venture Economics/ National Venture Capital Association, Retrieved February 8, 2016, from http://www.austinchamber.com/index.php
Economy	Entrepreneurship and Innovation	Utility Patents	U.S. Patent and Trademark Office	United States Patent and Trademark Office, Patenting In Technology Classes, Breakout By Geographic Origin (State and Country), Primary Classification Counts, CY 2010 - 2014 Utility Patent Grants Distributed By Year of Grant. (n.d.). Retrieved December 9, 2015, from http://www.uspto.gov/web/offices/ac/ido/oeip/taf/tecstc/classes_clstc_gd.htm
Economy	Entrepreneurship and Innovation	Utility Patents by MSA	U.S. Patent and Trademark Office	United States Patent and Trademark Office, Patenting In Technology Classes, Breakout By U.S. Metropolitan Area (Class ALL, ALL CLASSES), CY 2000 - 2013 Utility Patent Grants Distributed By Year of Grant. (n.d.). Retrieved April 27, 2016, from http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cls_cbsa/allcbsa_gd.htm



Environment

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Austin Area Sustainability Indicators (2016) - Environment

Contents

Austin Area Sustainability Indicators (2016) - Environment.....	1
Environment.....	3
Water Consumption.....	3
Current Demand for Water.....	3
Water Demand Projections.....	4
Water Sources.....	4
Groundwater Availability.....	5
Surface Water Levels for Austin Area Reservoirs.....	6
Water Sources by County.....	6
Water Knowledge.....	7
Water Quality.....	9
Notices of Violation – Water Quality.....	9
Population Served by Public Water Providers in Violation.....	10
Distribution of Poor Water Quality.....	11
Energy Use.....	12
Renewable Energy Generation.....	12
Sale of Renewable Energy – Green Choice Subscribers.....	13
System-wide Fuel Mix by Major Provider.....	13
Air Quality.....	14
Ground Level Ozone.....	14
Ozone Pre-cursors.....	16
Solid Waste/ Recycling.....	17
Waste Generation.....	17
Improper Disposal of Solid Waste.....	18
City of Austin Recycling.....	19
Hazardous Waste.....	19
Toxic Release.....	20
Carcinogens.....	20
Climate Change.....	22
Summary and Conclusion.....	25

Appendix A: Glossary 26
Appendix B: Bibliography 27

Environment

In its original form, sustainability was closely associated with the maintenance of environmental quality. The roots of a sustainability paradigm grew from a concern of the ability of the earth to sustain a growing human population, known as carrying capacity. Other environmental concerns grew out of indiscriminate use and exportation of technologies that may pose dangers to the environment and human health. These dangers were highlighted in an immensely influential book, *Silent Spring*, and published by Rachel Carson in 1962. Today, environmental sustainability is ingrained in everyday practices such as recycling, water conservation efforts, regulation of harmful chemicals and waste, renewable energy, and land stewardship practices. Sustainability of the Austin area is intricately linked to the environmental quality of the region as a whole. Environmental sustainability is interdependent with quality of life and connected to outcomes in many of the other indicator areas.

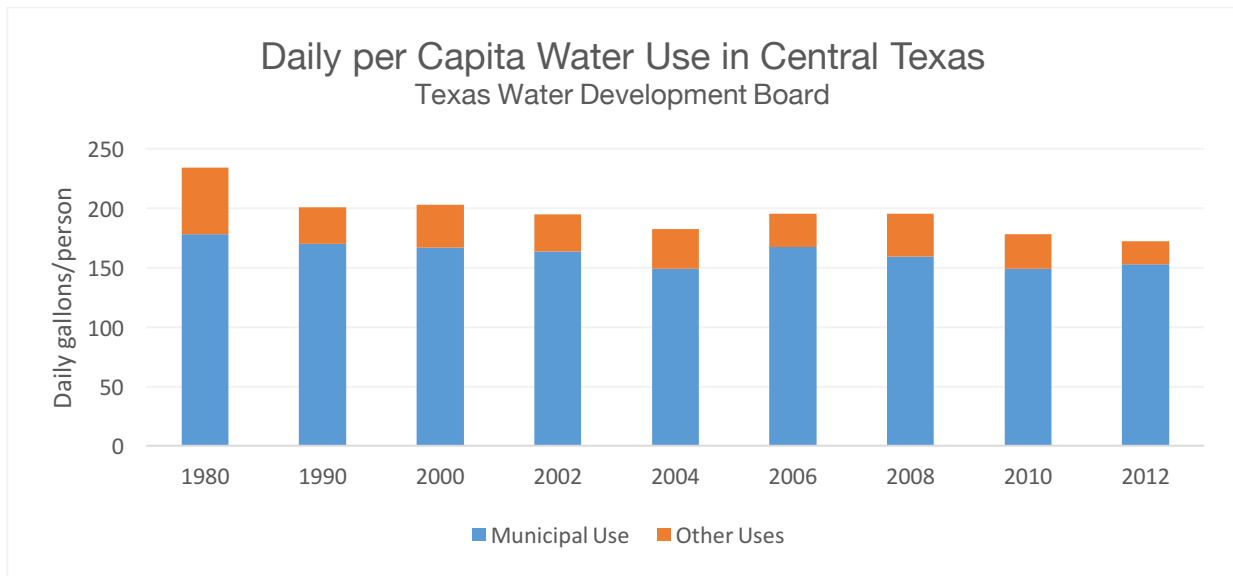
At least by reputation, the Austin area is more “environmentally conscious” compared to the rest of Texas. According to the A²SI survey, 60% of respondents consider themselves environmentalists (17% strongly agree). In Hays County, 27% strongly agree that they are environmentalists followed by Burnett (19%). Williamson has the highest percentage that strongly disagrees at 24%. Moreover, approximately 27% of Austin area residents report that the “environment” is the first phrase that comes to mind when thinking about sustainability (second to quality of life at 50%).

Water Consumption

Water management is as important to the sustainability of our region as any other single concern. Assess to water – either surface water rights or available groundwater – does not match current growth and consumption patterns. This mismatch drives demand for large water infrastructure projects. Greater effort is needed to direct development towards water availability and to prepare the region for cycles of drought that are likely to increase with a changing climate.

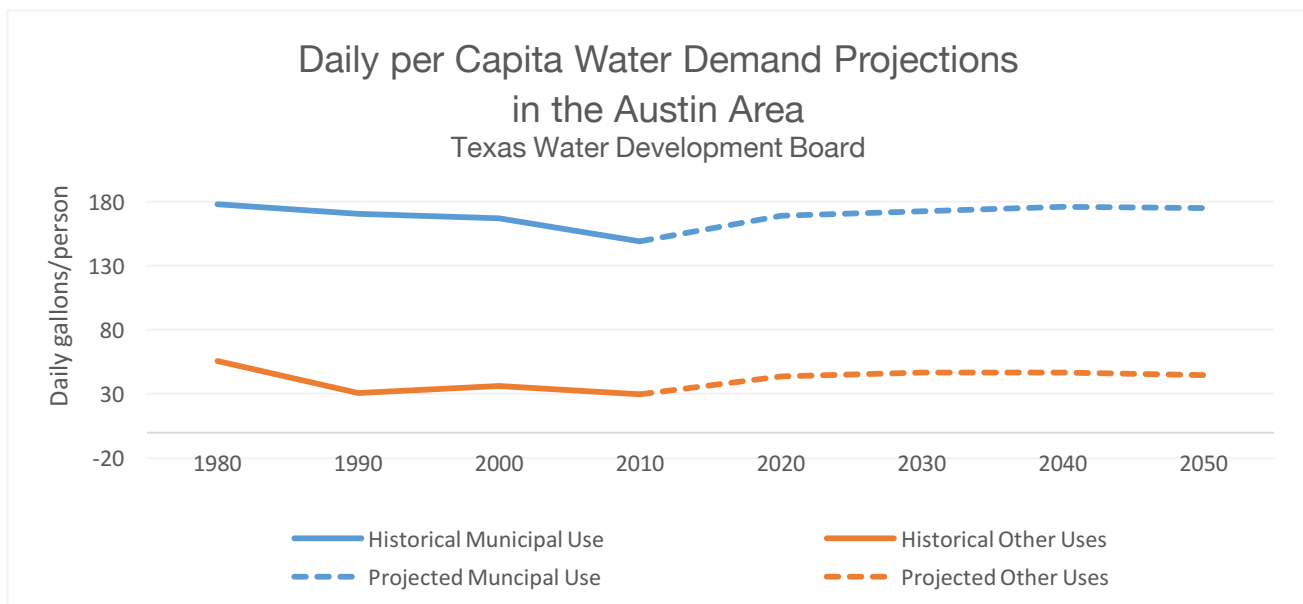
Current Demand for Water

Demand for regional municipal water is greater than all other uses combined and includes city-owned utilities, public water districts, water supply corporations or private utilities supplying residences, commercial (non-manufacturing) businesses, and institutional water. The reduction of water use by livestock and irrigation, combined in “other uses,” reflects the increasing rate of urbanization occurring in the Austin arearegion.



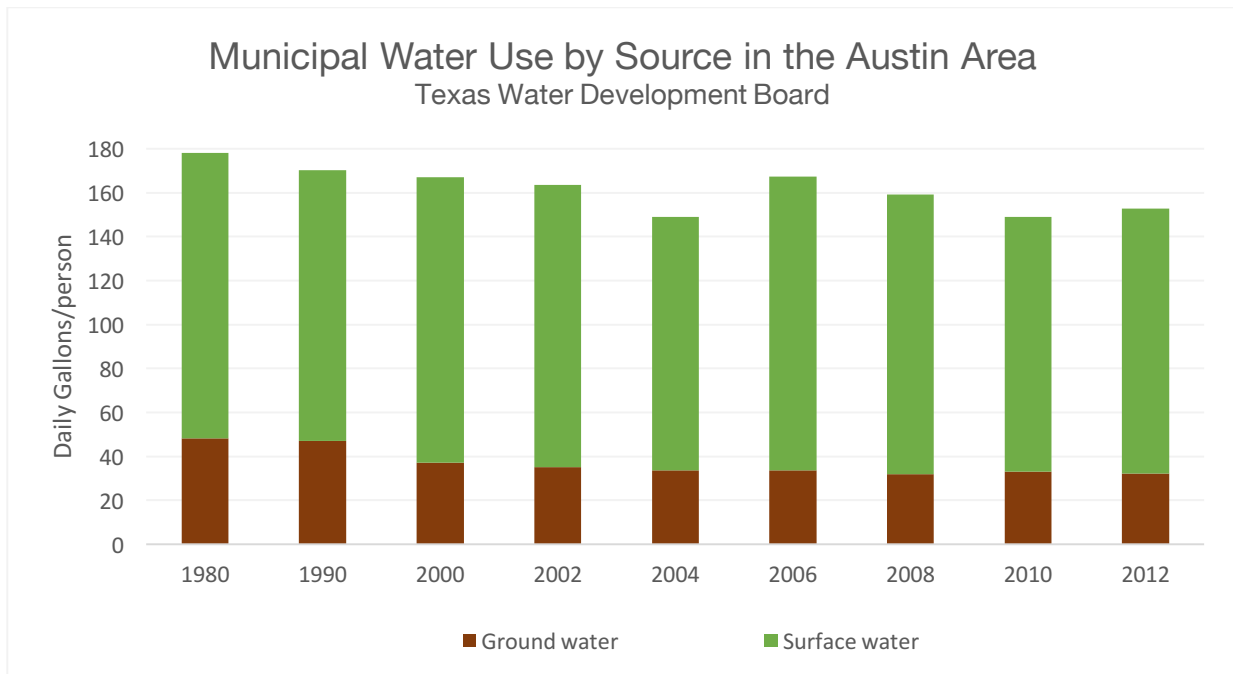
Water Demand Projections

After a surge in water use from 2010 to 2020, the daily per capita water demand for municipal and other uses is projected to slow and increase at a steady pace from 2020 to 2050. These predictions may be in part due to greater awareness of water consumption, stricter water restrictions and a strong water resiliency plan for the region. Reducing water use is widely recognized as the most reliable, affordable, and sustainable way to meet water demands.



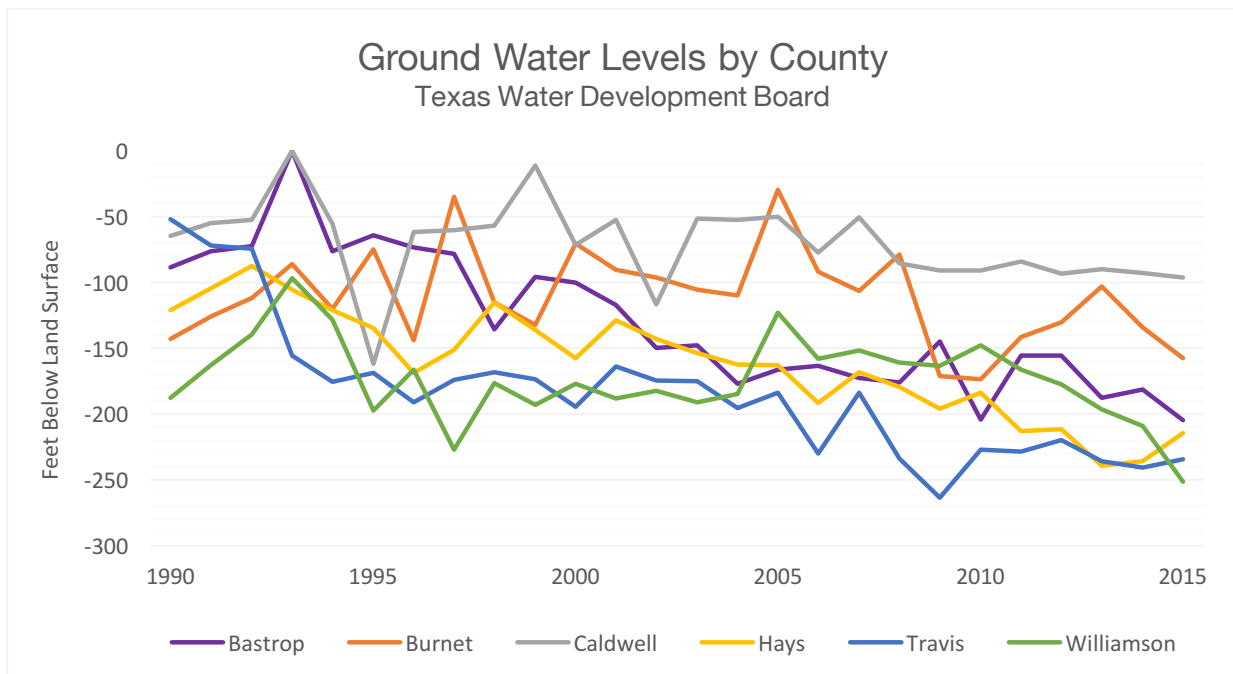
Water Sources

The majority of municipal water comes from surface water sources, primarily the Colorado and Guadalupe River Basins.



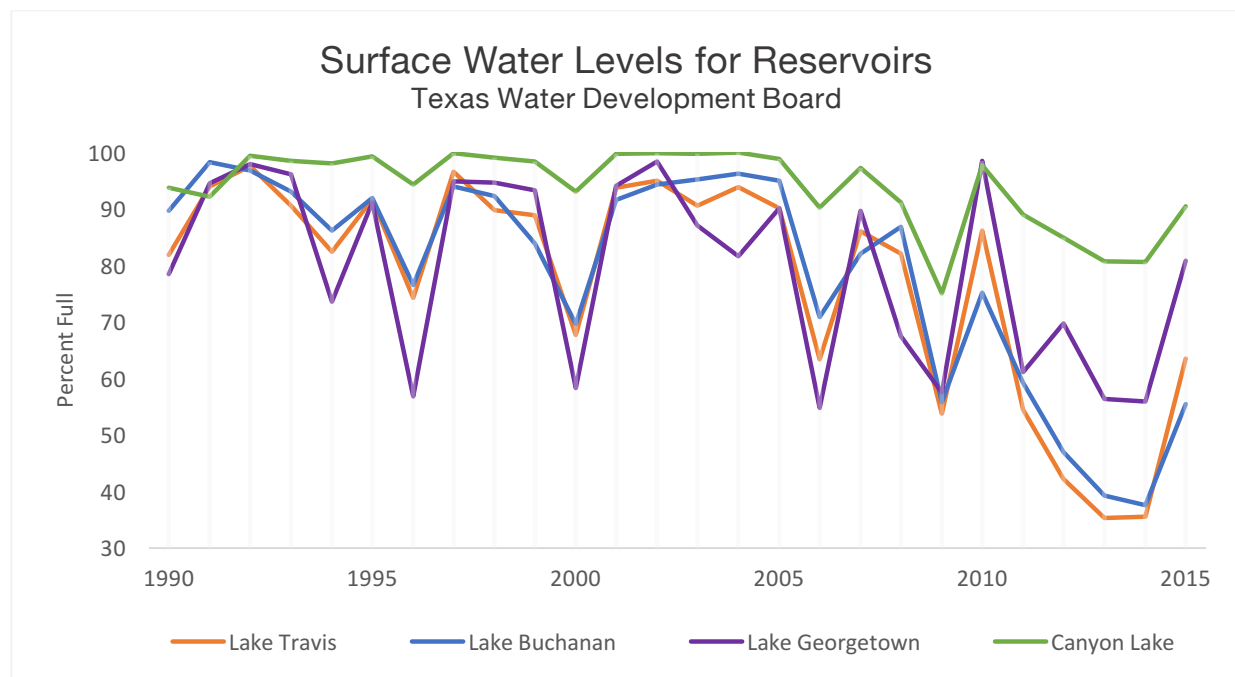
Groundwater Availability

All counties have seen a decline in ground water levels since 1990. This is most concerning to Bastrop County, which primarily sources its municipal water from underground alluvial wells. In 2015, Bastrop County saw its ground water levels hit a level as low as 204ft. below land surface, the same level measured for the drought year of 2010. The decline in ground water levels in Williamson, Hays, and Caldwell counties contributes to the increase in municipal water use from surface level sources, as depicted in the next graph.



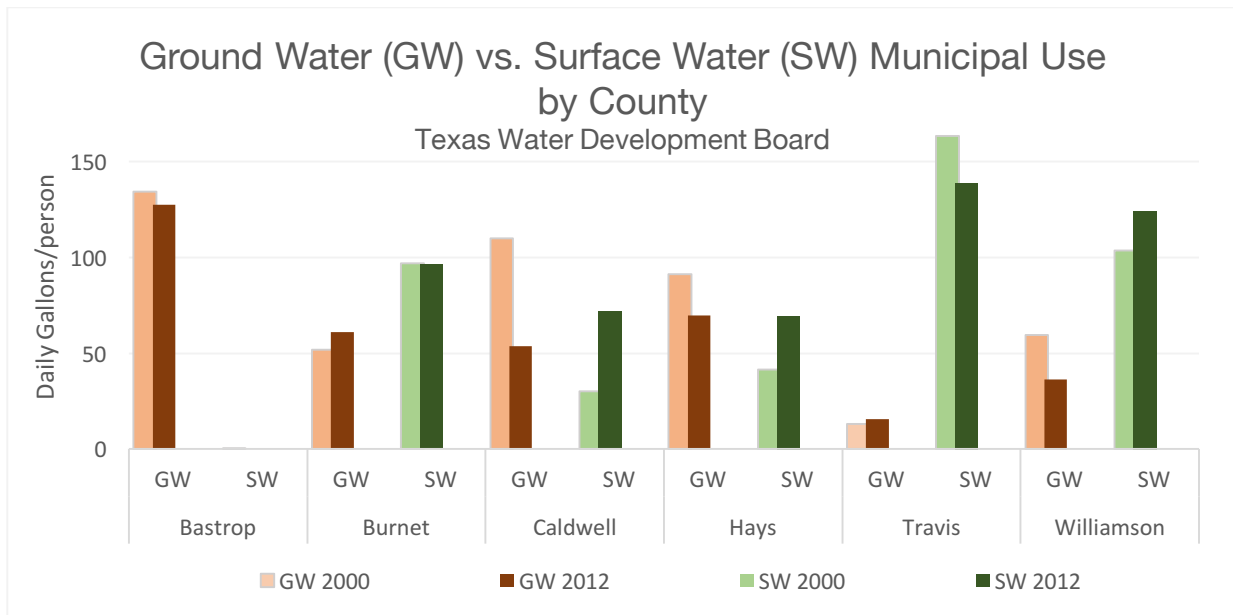
Surface Water Levels for Austin Area Reservoirs

Due to the severe drought conditions in the Austin area, the reservoirs that provide water to the region began to decline in 2005 after a five-year period of relative abundance. Low precipitation and rising temperatures, leading to greater evaporation from our lakes, caused the steepest reduction in water levels in 2010. Lake Travis, which serves Travis County, experienced a record low in 2013, reaching just 35% capacity. Record lows for Lake Buchanan, which services Burnet and Travis counties, and Lake Georgetown, servicing Williamson County, were recorded in 2014 with 37% and 55% capacity, respectively. Thanks to greater rainfall in 2015, our lakes were able to refill storage levels and recorded levels at 63.5% for Lake Travis, 55.4% for Lake Buchanan, and 80.9% for Lake Georgetown. Canyon Lake, which services Hays and Caldwell counties, also saw a decline in levels during the drought of 2010, but has been able to retain 80% of its capacity. Bastrop County's principal water source comes from underground alluvial wells and uses little to no surface water.



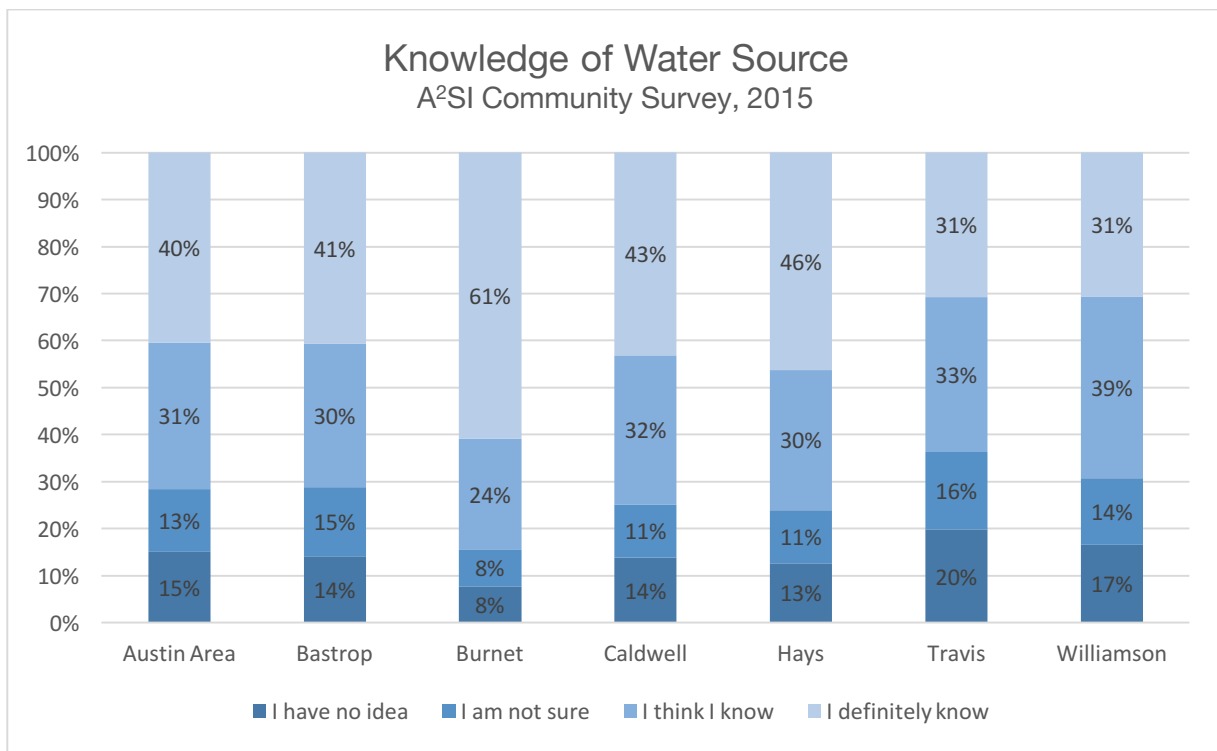
Water Sources by County

Though the Austin area primarily gets its municipal water from surface water, as depicted in the previous graph, it is important to note that Travis and Williamson counties dominate the surface water usage in the region. While Travis County's use of surface water declined since 2000, Williamson, Caldwell, and Hays counties increased their surface water usage in that same time. Burnet County has continued to use the same amount of surface water since 2000. Bastrop County does not use surface water and its municipal water comes from groundwater sources.

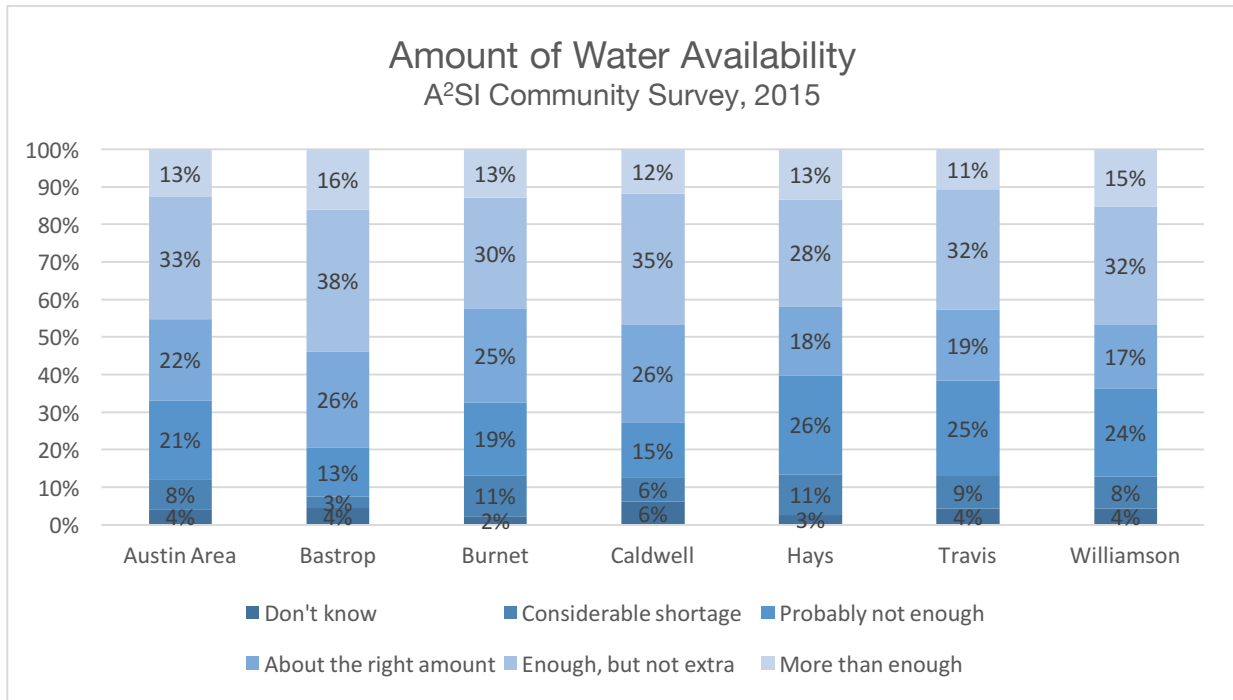


Water Knowledge

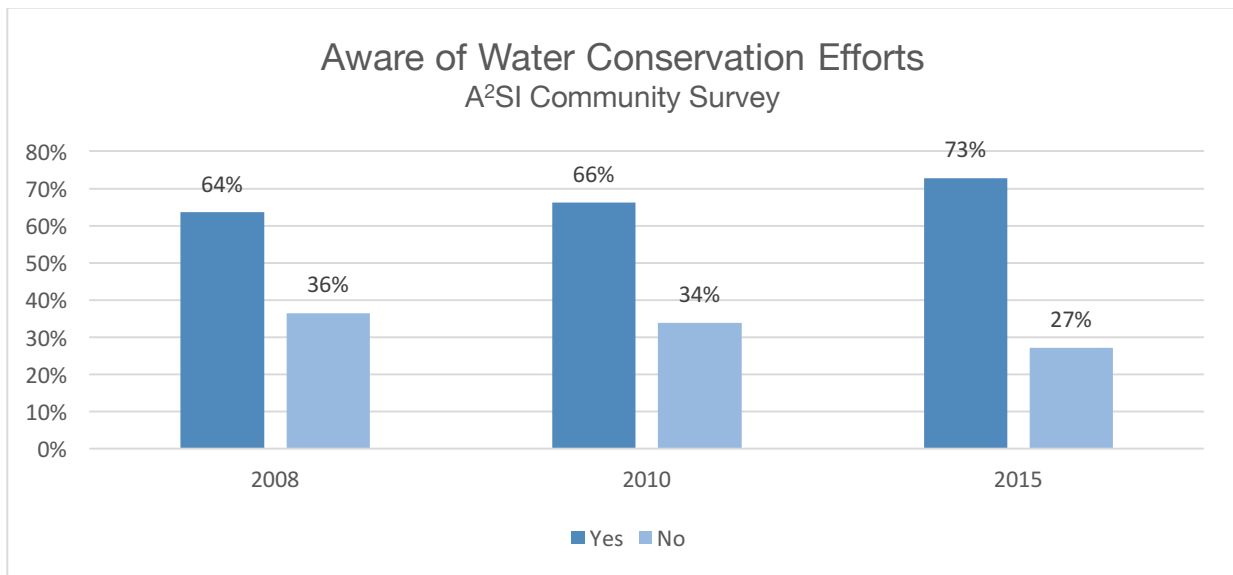
Since 2008, the percentage of survey respondents who are confident in their knowledge of their water source has remained unchanged in the Austin area between 40 to 41% (who report saying “I definitely know” in the A²SI Community Survey). Conversely, 15 to 16% report “I have no idea.” Burnett and Hays County residents are most confident of their knowledge in the source of their water. Travis County has the highest percentage of respondents who report, “I have no idea” at 20%, followed by Williamson (17%).



Hays (37%) and Travis County (34%) residents are most concerned about current water availability, whereas Bastrop County residents are least concerned. Across the region, 29% of Austin area residents were concerned about a lack of water availability. This has increased from 23% in 2010.



Generally, residents are becoming more aware of efforts and programs to conserve water in their communities.



Water Quality

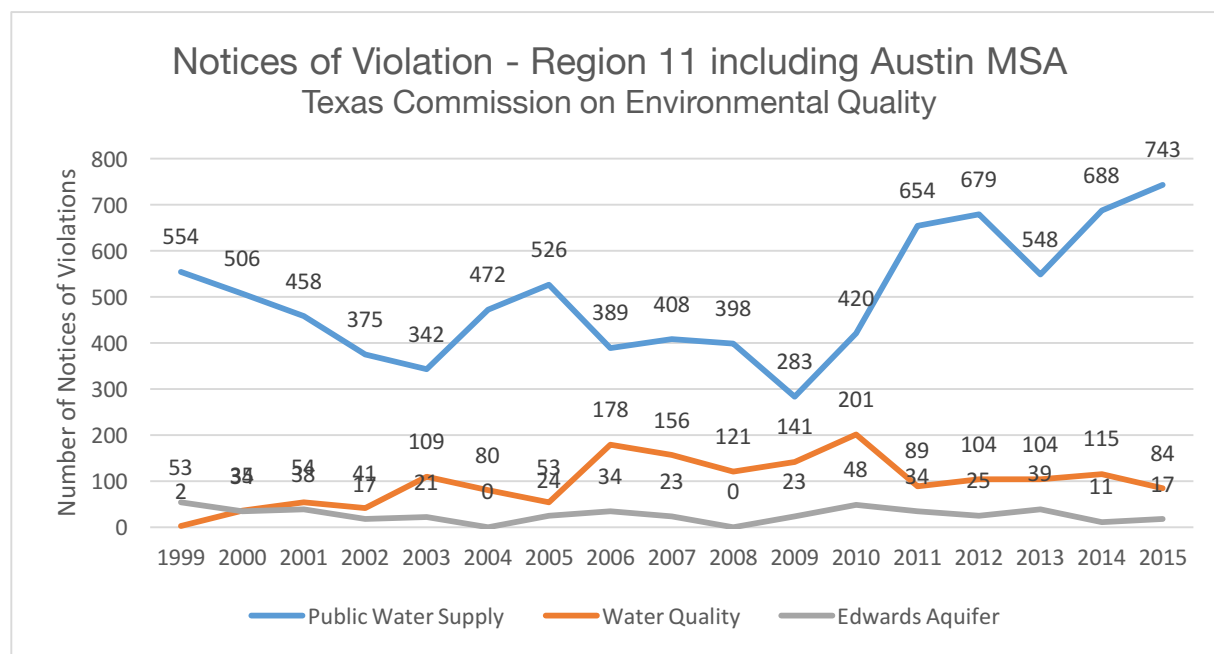
In some areas of the region, water quality has much deeper meaning for economy, health, leisure, and engagement beyond just suitability for drinking. It is inextricably tied to the quality of life and personal connection to place. Water quality in some places include well quality depth, salinity, availability, and the sale of water rights to meet demands outside the Austin area.

Notices of Violation – Water Quality

A “Notices of Violation” is the most common tool used in Texas to encourage compliance with environmental laws. An NOV is sent to an entity when it is determined that an environmental violation may have occurred and can be the first step towards further administrative actions.

The number of notices of violations issued by both regional and central offices for public water supply have been relatively high and increasing in recent years. The trend in the notices of violations is dependent mostly on the types of initiatives conducted by TCEQ. In FY 2010, the TCEQ initiated a requirement for water treatment plants and drinking water systems to have emergency generators for a backup power source. This initiative is one of the reasons for the increasing notices of violations for public water supply from 2009 onwards. Similarly, in FY2015, an increased focus on review and enforcement of self-reported data for public drinking water systems resulting in more notices of violations in FY 2015 as compared to FY 2014.

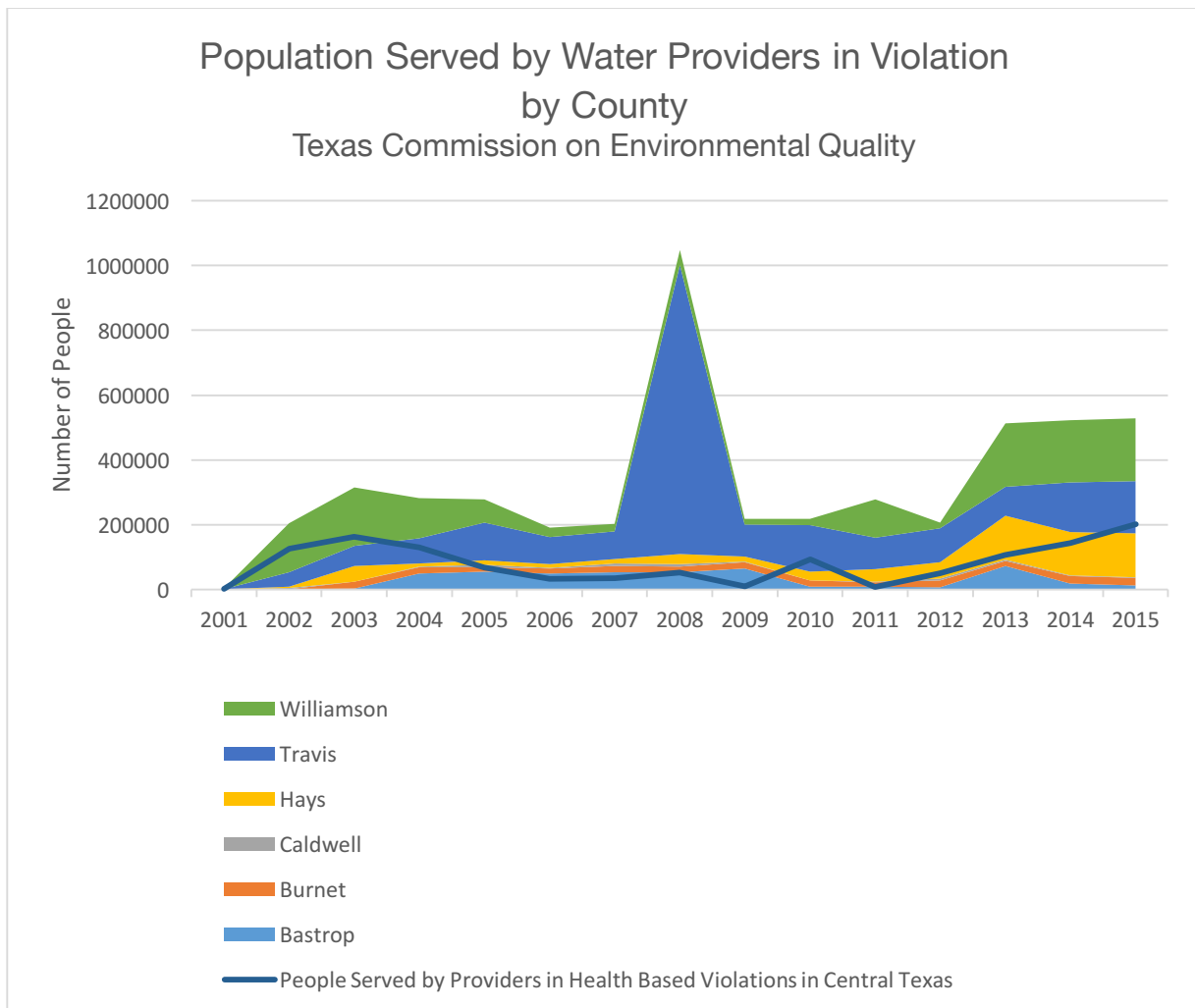
Despite the increase in the notices of violations, 99 percent of the facilities inspected by the TCEQ were in compliance through the years 2010-2015 (i.e., the minor violations noted were corrected within a reasonable amount of time and therefore did not require further enforcement).



*Region 11 includes Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, Llano, Travis, Williamson counties.

Population Served by Public Water Providers in Violation

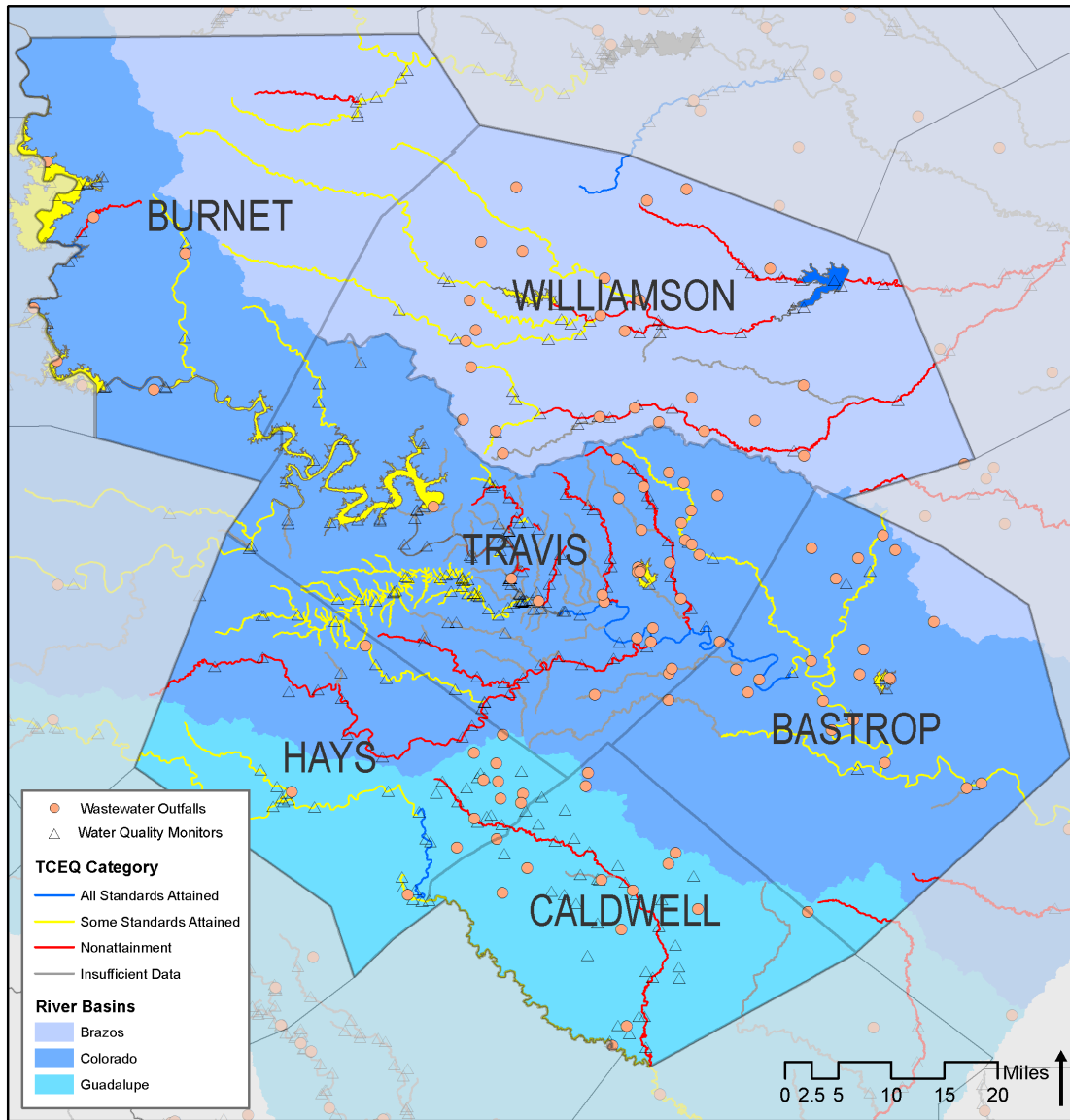
In 2015, over the course of the year, about 528,000 people were served by water providers who were in violation of EPA water quality rules. Of these, 200,000 people were served by water providers that were in health based violations. The number of people served by water providers in violation has increased dramatically from around 2,000 in 2001 to 528,000 in 2015. The majority of this increase has occurred in Williamson, Travis and Hays counties. In the year 2008, Travis County experienced a spike in the number of people served by providers involved in non-health based violations. The spike was a result of a non-health based violation of EPA’s water quality rules by City of Austin Water and Wastewater system that provides water to 775,000 individuals in Travis County.



Distribution of Poor Water Quality

The map shows impairment within the region’s three river basins for the year 2014. If a water body violates just one of many criteria, it is listed as being impaired or as not meeting the designated use for that year. Monitored bodies include the largest lakes, rivers, and streams in the region, with multiple monitoring sites along several rivers.

2014 Distribution of Poor Water Quality



Data Source: Texas Commission on Environmental Quality

Energy Use

Energy is a dominant theme of sustainability and impacts many other environment indicators. Energy production consumes a great deal of water and generates air pollutants, greenhouse gases, and hazardous waste.

Renewable Energy Generation

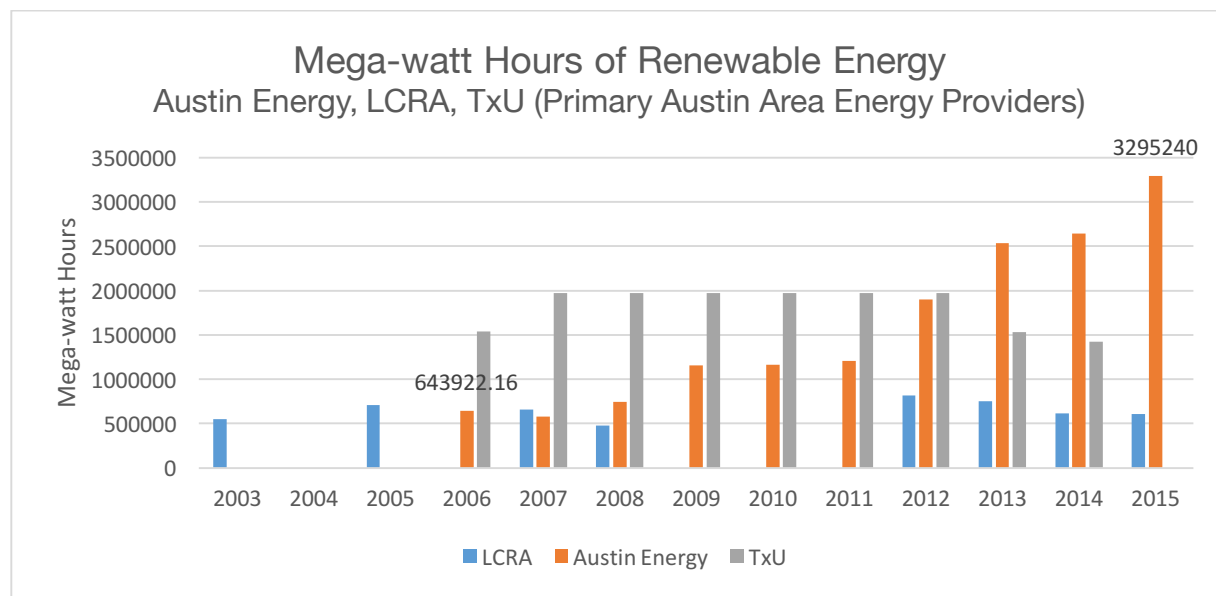
While still a relatively small share of total generation, renewable sources, as well as conservation, have gained increasing attention across the region and in all economic sectors.

Megawatt Hours of Renewable Energy

Austin Energy has increased its capacity of providing renewable energy over the years from 0.6 million Mega-Watt Hours in 2006 to 3.3 million Mega-Watt Hours in 2015, an increase of about 450%. The renewable energy generated by Austin Energy comprise power from wind, solar and some from biomass.

The renewable energy portfolio of TxU comprises purchase agreements for wind power. In 2007, Luminant, the subsidiary responsible for energy generation and wholesale sales and purchases, added 124 MW to its wind power portfolio bringing its current total wind power portfolio to more than 900 MW. The expiration of some power purchase agreements in 2013 and 2014 reduced the renewable energy portfolio of TxU to 650 MW in the year 2014.

The renewable energy portfolio of LCRA comprises hydro-electric energy and power purchase agreements for wind energy. The hydroelectric energy generation by LCRA has reduced by about 88% from 2005 to 2015. LCRA purchases its wind power from various energy providers located in Texas. The wind portfolio of LCRA has increased from 116MW in wind power purchase agreements in the year 2003 to 252 MW by 2015. Additionally, in 2015 LCRA entered into a wind power purchase agreement for 97MW of wind power facility that was set to be operational by the end of 2016. However, given the recent influx of natural gas and the declining cost of wind per megawatt hour it is unclear if this project will come to fruition.

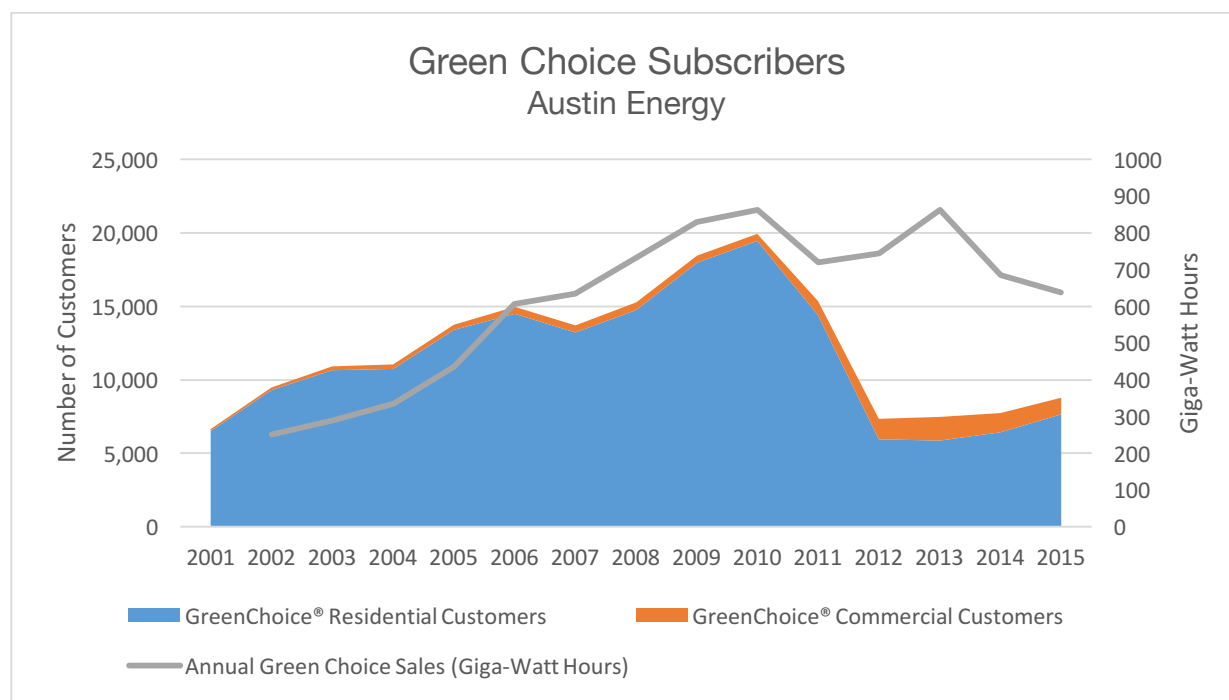


*Annual Reports for TxU for year 2015 and Annual Reports for LCRA from year 2004, 2006, 2009, 2010 and 2011 were not found.

Sale of Renewable Energy – Green Choice Subscribers

From the year 2002 to 2010, Austin Energy was a nationwide leader in the sales of renewable energy according to rankings by the U.S. Department of Energy’s National Renewable Energy Laboratory. In 2011, the City of Austin switched to 100 percent clean, renewable energy from Green Choice program and became the largest local government in America at the time to power all of its facilities with renewable energy. This switch accounts for the increase in Green Choice commercial customers from 2011 to date.

Prior to 2013, the customers subscribed to Green Choice program in batches for a fixed number of years. The expiration of these batches in 2011 and 2012 reduced the number of residential customers for Green Choice program and also affected the annual sale of renewable energy through Green Choice. After 2013, a new pricing structure was introduced with most new subscribers paying one cent more per kilowatt hour than the regular customers. The customers no longer subscribe in batches. Though Austin is no longer the nation-wide leader in renewable energy sales, the number of residential customers is gradually increasing from 2013. However, the decrease in the number of commercial customers in years 2014 and 2015 has led to a decline in the total annual sales of renewable energy in recent years.

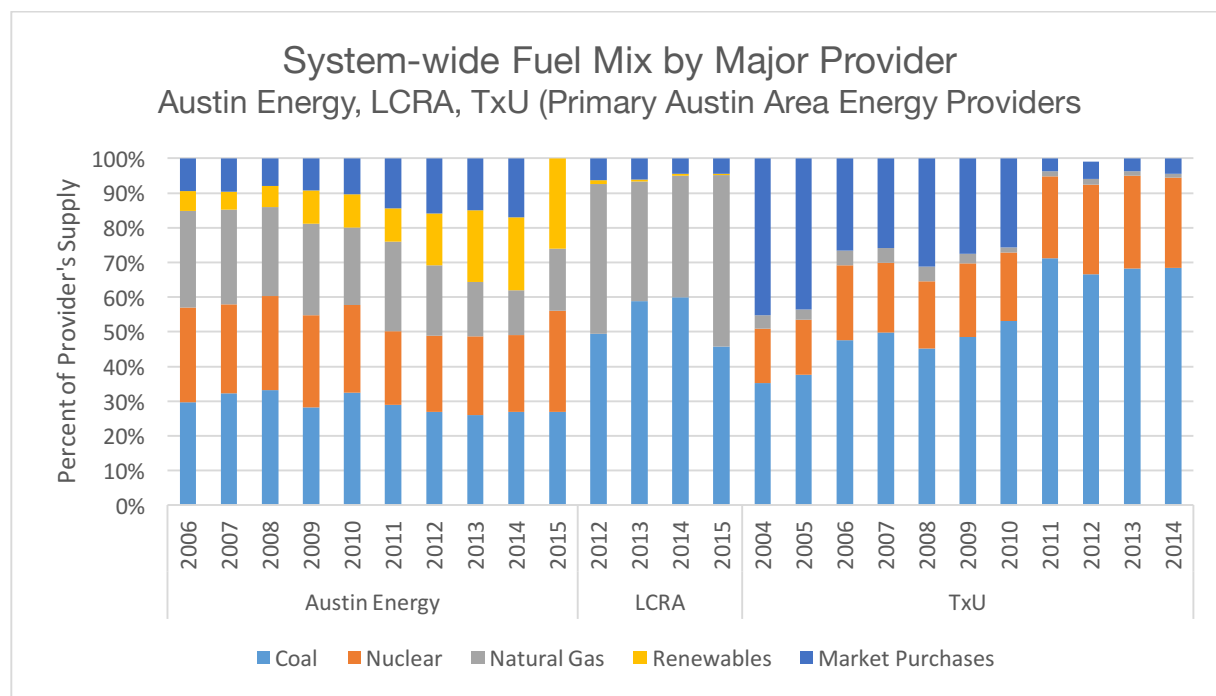


System-wide Fuel Mix by Major Provider

Austin Energy has been shifting its fuel mix to incorporate greater renewable energy. The share of natural gas for energy supplied by Austin Energy has reduced over time.

LCRA generates more than 90% of its energy from coal and natural gas. A very small percentage of energy is generated through hydro-electric power generation and wind energy is purchased from wind energy providers across Texas.

TxU does not generate any renewable energy itself. TxU produces its energy through coal, natural gas and nuclear sources. In 2004, about 50% of the energy provided by TxU was purchased from other power providers. Over time, TxU has increased its coal and nuclear energy generation capacities and has reduced purchase power agreements.



*For Austin Energy, Market purchases are excluding renewable energy while for LCRA and TxU, Market purchases include purchases of renewable energy

Air Quality

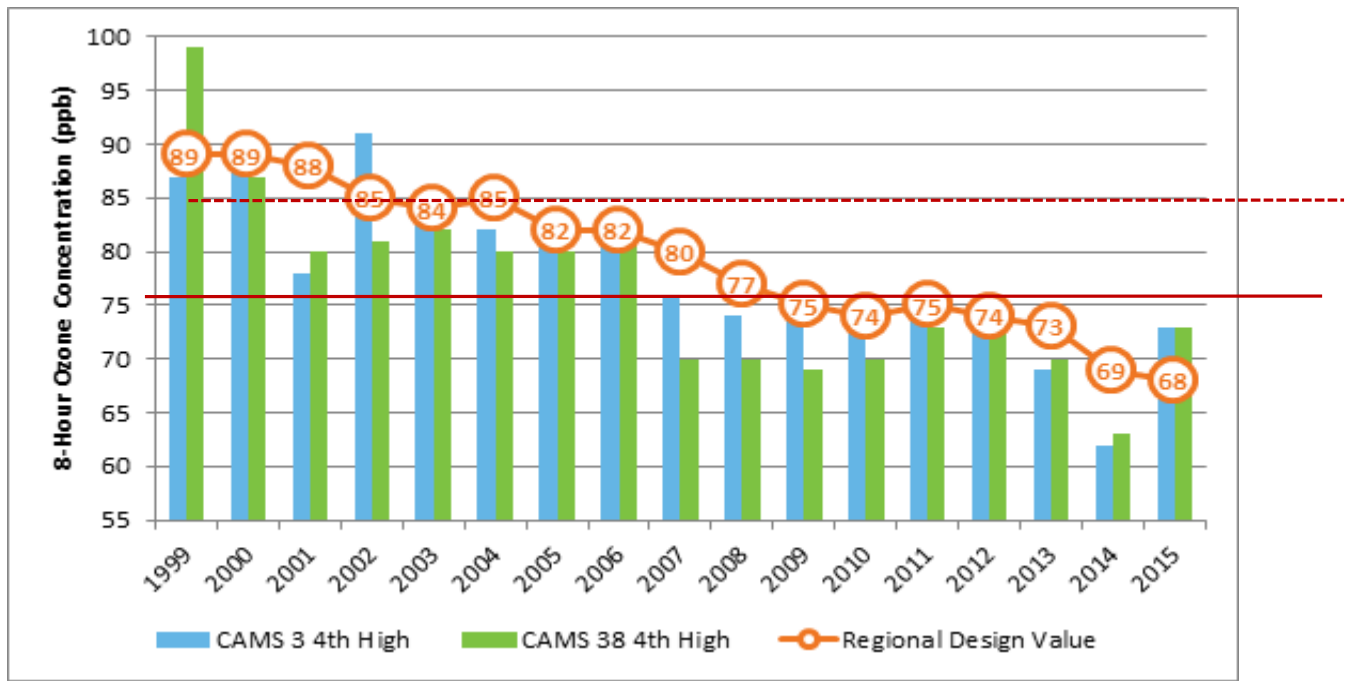
Regional air quality is determined by multiple activities, some of which we can manage through local policy and personal choices such as local pollution emissions, efficient mobility and land use coordination, as well as public awareness. Factors that we cannot control, such as continental weather patterns and non-local emissions, also influence air quality. Air quality is steadily improving in the Austin area, however, awareness of and perceptions of the threats caused by poor air quality seem to be decreasing.

Ground Level Ozone

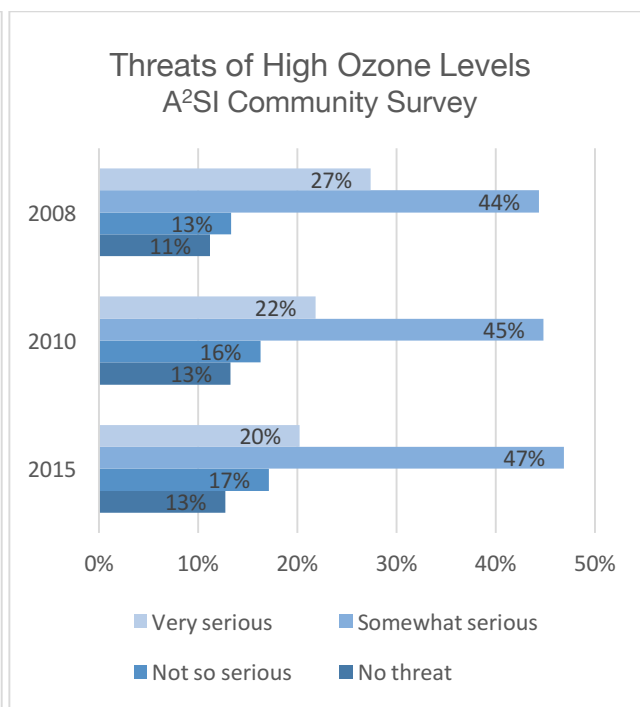
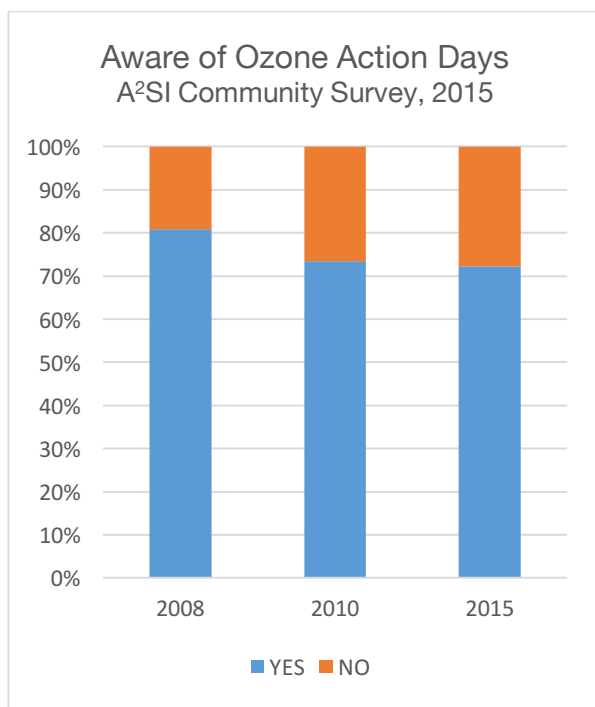
The ozone at ground level is harmful and can cause various health problems, particularly for people who have lung diseases such as asthma. The Environmental Protection Agency (EPA) sets air quality standards and reviews regional data to assess attainment with the standards. The design value for a region is the 3-year average of the annual fourth-highest daily maximum 8-hour ozone concentration. This regional design value is compared against the National Ambient Air Quality Standard (NAAQS) to assess whether a region has attained the desired environmental standards as

maintained by the EPA. From 1997 to 2008, the NAAQS 8-hour ozone design value was 84 parts per billion. In 2008, the NAAQS 8-hour ozone design value was changed from 84 parts per billion to 75 parts per billion. In recent years since 2011, the regional design values for the counties served by the Capital Area Council of Governments fall within the standard set by the Environmental Protection Agency.

In 2015, about 72% of Austin area residents were familiar with Ozone Action Days – a public awareness and personal action campaign triggered when conditions are predicted to be ideal to general ground level ozone at levels harmful to human health. This is consistent with 2010 (73%), but down from Ozone Action Day levels in 2008 (81%). The percentage of respondents that believe higher ozone levels pose a serious threat has also declined since 2008 (71%), but—at 67%—is consistent with 2010.

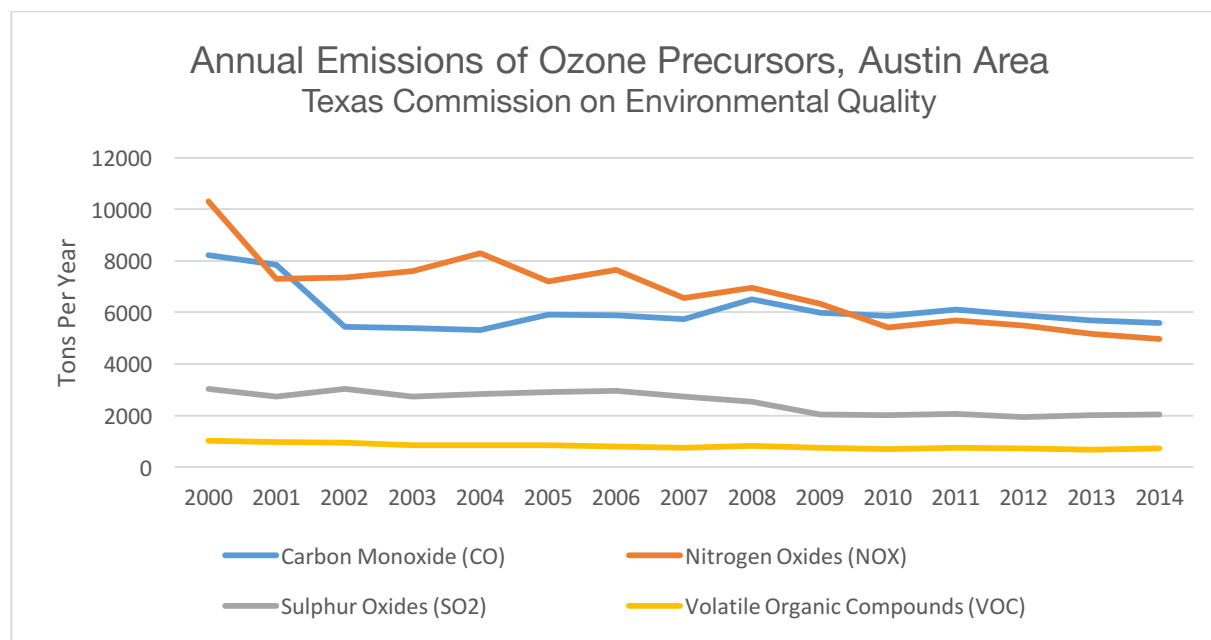


*Source: Capital Area Council of Governments, Texas Commission on Environmental Quality; Austin-Round Rock MSA. Austin area has two monitoring sites: CAMS 3 – Austin Northwest Monitoring Site and CAMS 38 – Audubon C38 Monitoring Site.



Ozone Pre-cursors

Ozone pre-cursors are chemical compounds that react with other chemical compounds in the presence of sunlight to form ozone. Analyzing the trend in ozone pre-cursors allows us to understand the trend in the presence of ozone at the ground level. All the shown ozone pre-cursors, particularly Nitrogen Oxides and Sulphur Oxides, show a declining trend in annual emissions. The emissions of pre-cursors have remained relatively flat since 2010 with only a very slight reduction in the annual emissions of Carbon Monoxide (CO) and Nitrogen Oxide (NOX) from 2012 to date. A reduction in the emissions of ozone pre-cursors will predicate a reduction in the ozone design values and greater attainment of the standards set by the EPA.

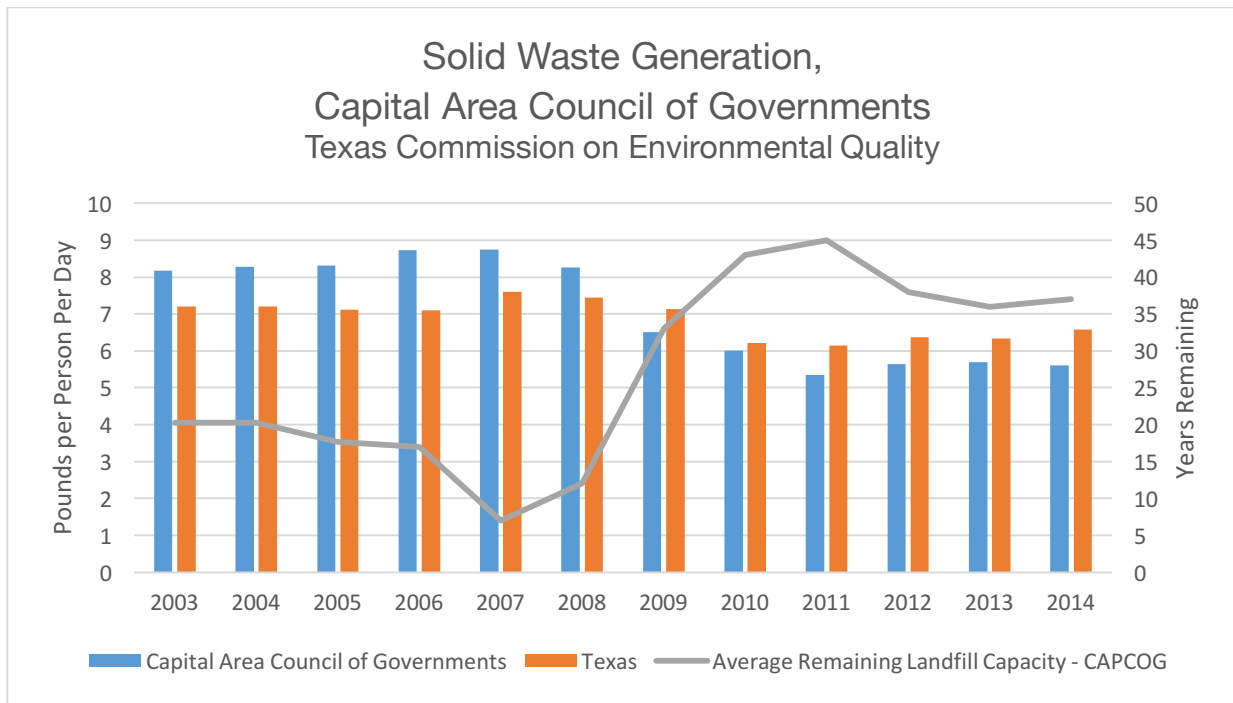


Solid Waste/ Recycling

New large recycling facilities have improved the economies of waste diversion. The continued expansion of recycling and resource recovery to more materials should hopefully reduce persistent problems like illegal dumping and burning of trash.

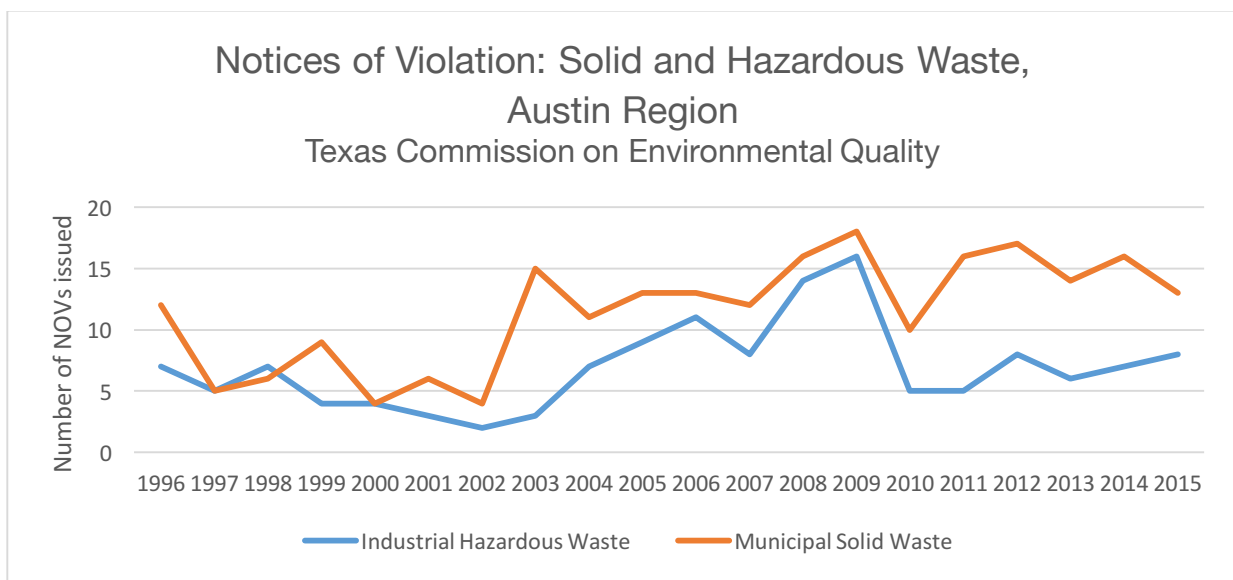
Waste Generation

The Texas Commission on Environmental Quality requires all the facilities handling municipal solid waste to submit an annual report covering the types and amounts of waste collected at the facility. The per-capita waste generated per day in the ten county area served by Capital Area Council of Governments is estimated from the amount of solid waste collected at the landfills located within the Capital Area. It seems that the amount of waste generated per capita, per day, for CAPCOG was higher than the average per capita rate for Texas until 2008, and has been lower since then. The per capita rates of waste generation should be interpreted cautiously, as landfills may collect waste from other counties not within the Capital Area, and similarly the waste generated by residents within CAPCOG might be deposited at landfills not located within the Capital Area. In fact, the sudden decline in the per-capita rate of waste generation resulted as the City of Austin Landfill in Travis County reached maximum capacity and closed down in 2009. In response to the declining remaining capacity of the landfills in the Capital Area, extensions were made to Texas Disposal Systems Landfill, IESI Travis County C&D Landfill and Williamson County Recycling & Disposal Facility. The major extensions were made in the Williamson County Facility extending the remaining years of that facility to 125 years in 2009 from 17 years in 2008.



Improper Disposal of Solid Waste

A Notice of Violation (NOV) is sent to an entity when it is determined that an environmental violation may have occurred and is used to encourage compliance to the environmental regulations. Notices of Violation for improper disposal of industrial hazardous waste and municipal solid waste reached a peak in 2009. Though the number of Notices of Violation issued for Industrial Hazardous waste have declined since then, the number of NOV's issued for municipal solid waste has remained high.



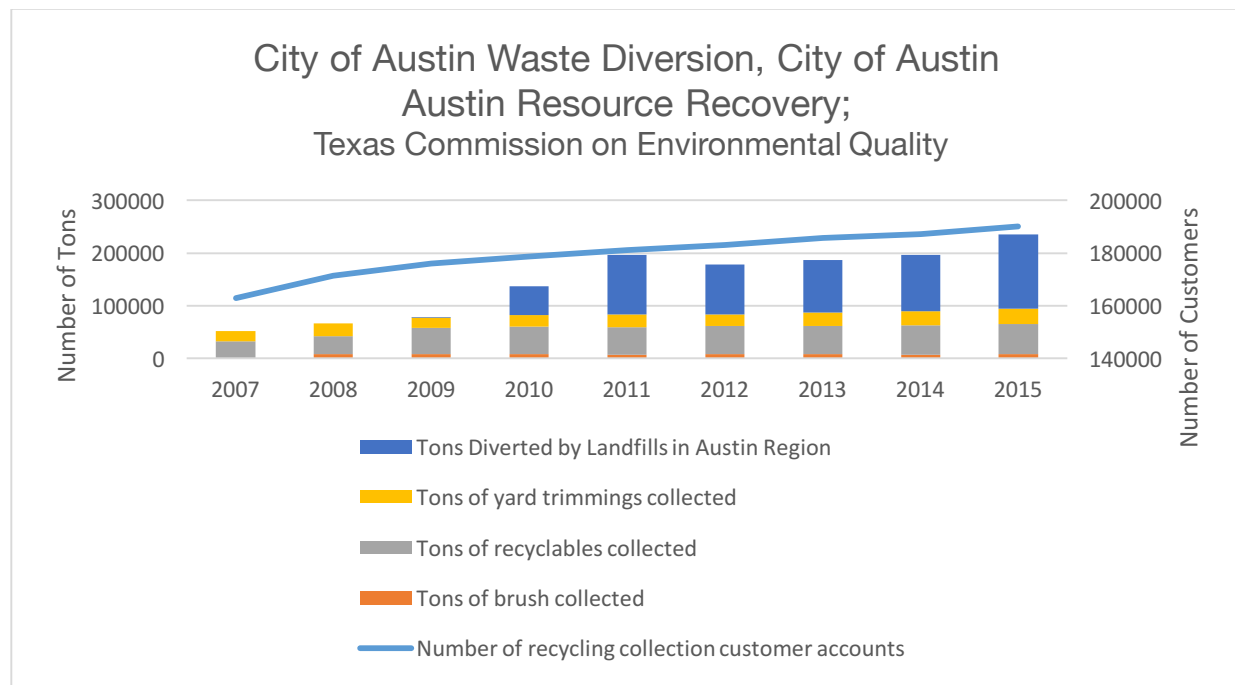
City of Austin Recycling

The City of Austin has a goal of zero waste by the year 2040. To achieve this goal, Austin Resource Recovery provides a range of services including curbside collection of recyclables, collection of brush and yard trimmings. The amount of waste recycled and the number of customers for recycling services have increased in the City of Austin. There has been almost a 65% increase in the amount of waste diverted away from landfills for recycling through the services provided by the Austin Resource Recovery.

Since 2009, landfills located in the Austin Region have started diverting the solid municipal waste received at the landfills towards recycling. The waste materials diverted are primarily food items, construction materials, and sand. These landfills serve a wide range of counties including the counties in the Austin region.

To assess the performance of the city towards the goal of zero waste by 2040, the Austin Resource Recovery Master Plan (2011) required that a comprehensive study of the recycling programs be conducted after every 5 years. The first such comprehensive study was published in 2015.

Texas has also initiated Texas Recycles TVs and Texas Recycles Computers programs to encourage TV and computer manufacturers to recycle used TVs and computer equipment. Data from these initiatives has not yet been collected.

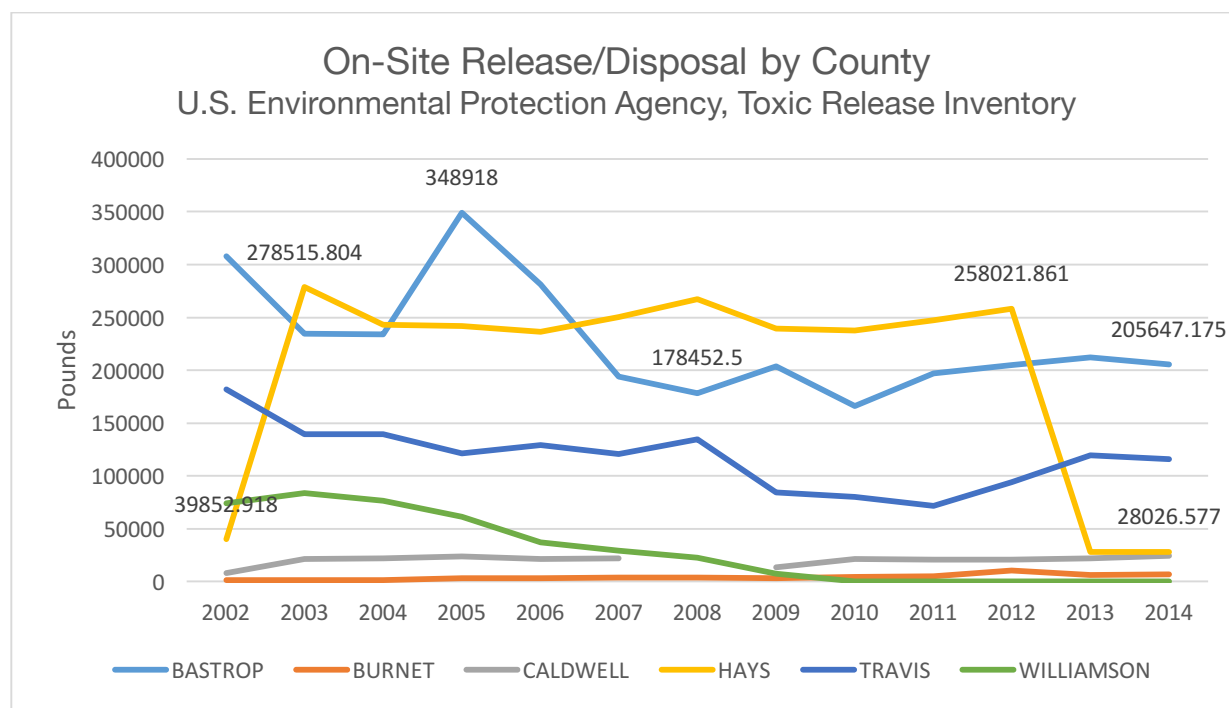


Hazardous Waste

Most hazardous material generation is related to industrial processes. In the Austin area, brick manufacturing in Elgin, petroleum activities in Luling, and electronics manufacturing in Travis County are the main point sources for hazardous waste. All chemicals listed in the Toxic Release Inventory have documented negative health effects on humans, yet regional or local documentation of the effects of prevalent chemicals is lacking.

Toxic Release

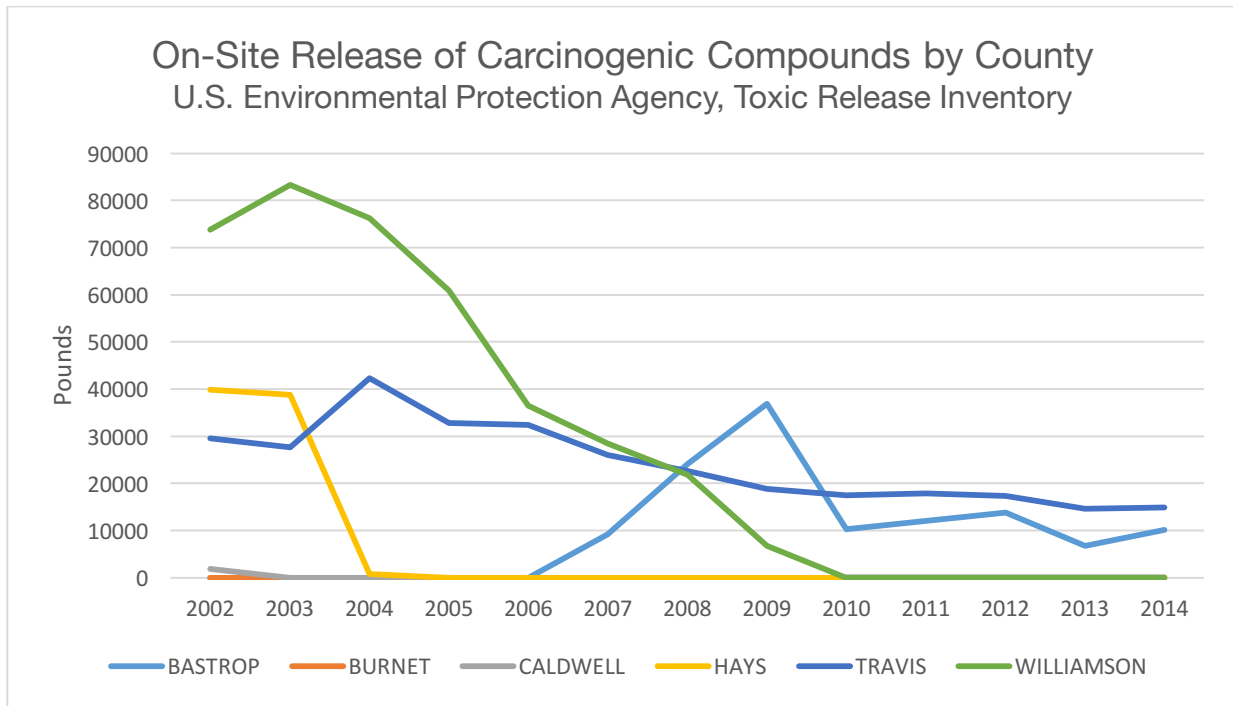
Air releases account for almost 100% of the onsite Release in the region. The Toxic Release Inventory of the U.S. Environmental Protection Agency tracks chemical emissions and releases by industrial and federal facilities. Bastrop and Hays counties have the highest reported emissions and releases of chemicals. For Bastrop County, the emissions declined from 349,000 pounds in 2005 to a low of 178,000 pounds in 2008. Since then, on-site releases in Bastrop Counties have increased by 52% from 2008 to 2014. In 2005, Acme and Hanson Brick plants with releases of hydrogen fluoride and hydrochloric acid into air accounted for 100% of the releases in Bastrop county. The reduced construction activity due to the 2008 recession reduced the air emissions by the brick plants in Bastrop County. Hays County saw a decade of high air releases until 2012, though the emissions has reduced in recent years (2013 and 2014). From 2003 to 2012, Texas Lehigh Cement Co Lp in Hays county reported very high emissions of sulfuric acid into air, which accounted for the increased emissions in Hays County during the period. Texas Lehigh Cement Co Lp reports that a change in the EPA's test method for sulfuric acid emissions from Test Method 8 to Test Method 8A in 2013 resulted in sulfuric acid emissions being below the threshold above which reporting is required. Sulfuric acid emissions from 2013 to date were, therefore, not reported to EPA.



Carcinogens

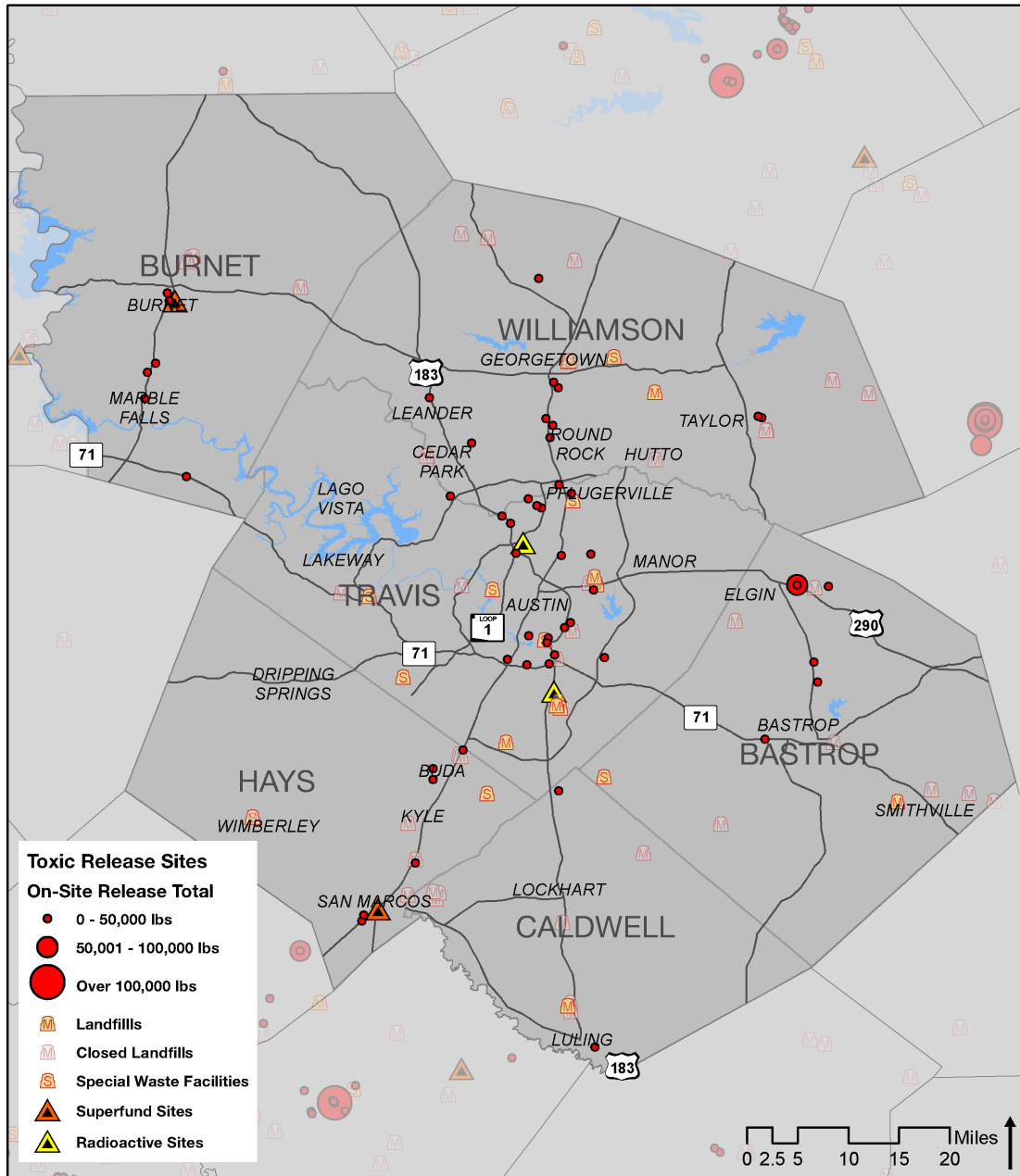
U.S. Environmental Protection Agency tracks releases of carcinogenic compounds by industrial facilities through the Toxic Release Inventory. Williamson County has seen the steepest decline in the releases of carcinogenic compounds over the years and has insignificant releases of carcinogenic compounds reported. The high carcinogenic releases were accounted for by air release of a carcinogenic chemical, styrene, by Aquatic Industries Inc. in Williamson County. Aquatic Industries Inc. cut down on its styrene emissions, and by the year 2010 no styrene emission was reported by Aquatic Industries Inc. The releases of carcinogenic compounds have also decreased in Travis County over time and comprise primarily of styrene emissions by Austin Counter Tops Inc. In

Bastrop County, release of carcinogenic waste increased in 2009 and has decreased after that. The increase was a result of lead releases by the Federal Correctional Institution Bastrop. Though the Institution was able to cut down release by one-fourth in subsequent years, lead releases by the Institution and by the U.S. Army National Guard Camp Swift Ranges account for 100% of the carcinogenic releases in Bastrop County.



The map below shows locations of facilities that release or manage hazardous and non-hazardous waste, as well as old landfills closed prior to development activity in an area. While facilities that hold permits and report hazardous air emissions are spread across the region, there are clusters in East Austin around traditional industrial areas. Many cities and towns in the Austin area provide or contract for recycling services or host recycling drop-off centers.

Toxic Releases 2014

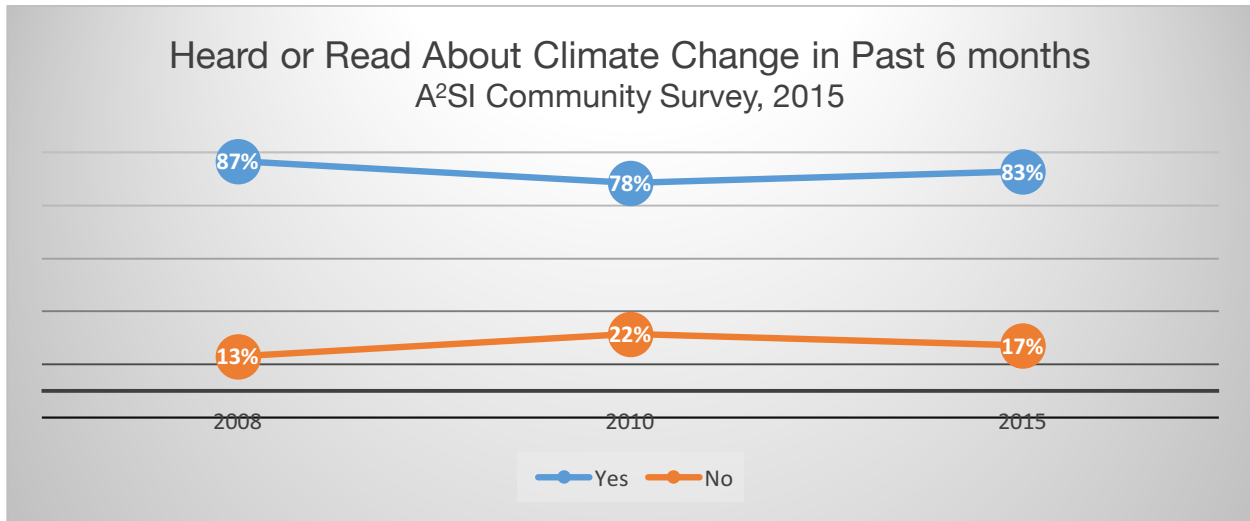


Data Source: Toxic Release Inventory (2014), Texas Commission on Environmental Quality

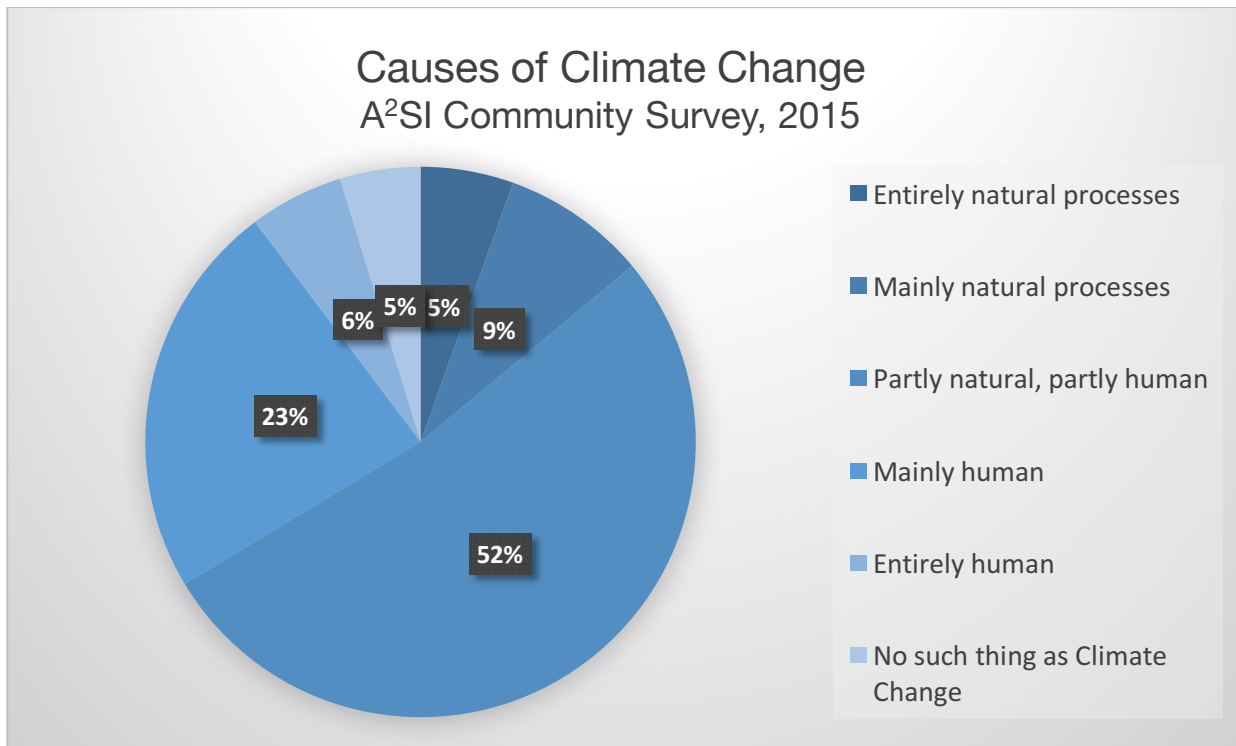
Climate Change

The ways in which individuals, decision-makers, and societies respond to climate change are in many cases contingent on public perceptions of its causes, consequences, and wider implications. As such, understanding people’s attitudes and beliefs are critically important. To take action on climate change – to reduce emissions, deploy low-carbon technologies, and implement adaptation measures – will require some degree of citizen involvement, from granting of policy mandates to active behavioral change.

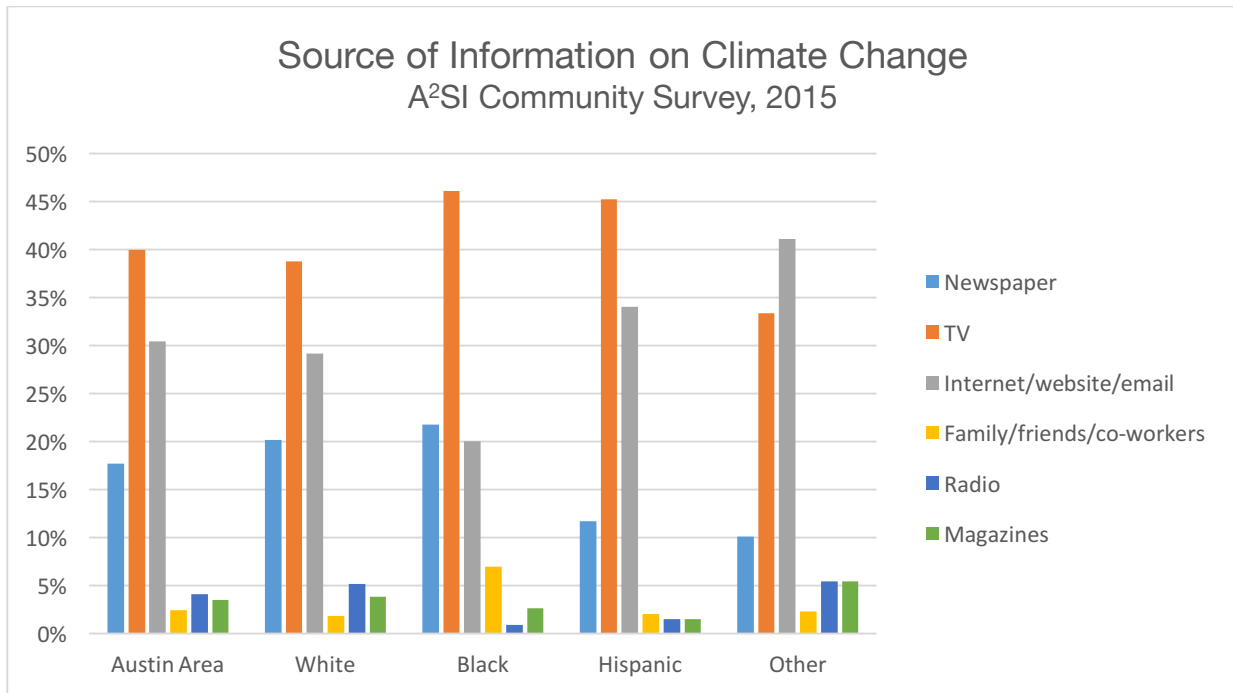
In general, the number of Austin area residents who report hearing or reading something about climate change in the past six months is lower in 2015 (83%) than in 2008 (87%), although it has improved since 2010 (78%).



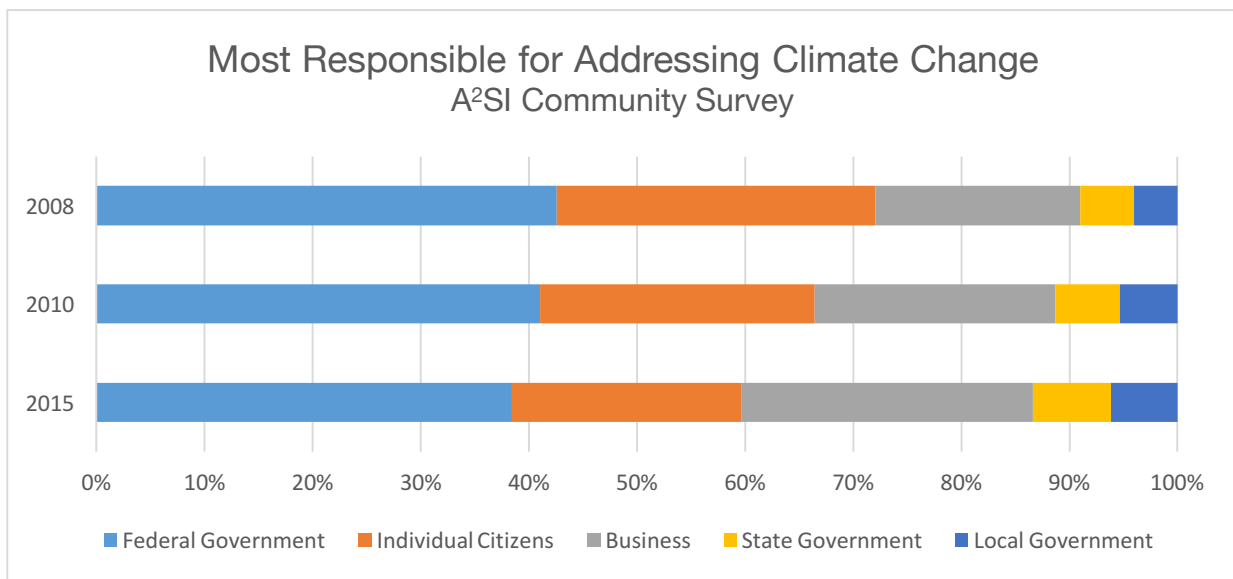
In 2015, survey respondents were asked about their opinion of the causes of climate change. The most widely cited response was that “climate change is partly caused by natural processes and partly caused by human activity” (52%). Twenty-nine percent attributed climate change to “human processes” and 14% attributed it to natural processes. Only 5% of respondents reported “there is no such thing as climate change”.



When asked about sources of information, approximately 40% of Austin area residents rely on television (40%), followed by web-based sources (30%), and newspapers (18%). African Americans (46%) and Hispanics (45%) report at higher rates that they get climate change information from television, and Asian Americans and other race/ethnicities grouped as “other” report that web-based sources are the most frequent source (41%).



When asked who is most responsible for addressing climate change, Austin area residents are putting increasing responsibility on Businesses (27%, up from 19% in 2008) and state government (7%, up from 4% in 2008). The Federal Government consistently ranks as the “most responsible” for addressing climate change, with 38% of the respondents reporting that in 2015.



Summary and Conclusion

Measuring changes in the environment in the Austin area is critical to raising awareness and addressing environmental issues of concern. In many ways, the quality of life for the entire region is grounded in a healthy environment that provides the necessary ecosystem services that sustain life. The foundations of sustainability include an adequate supply of clean water to drink and clean air to breathe, essential for human and non-humans alike. Questions of economy, mobility, or any other sustainability dimension are unnecessary if not situated in the context of a healthy and thriving natural environment.

Appendix A: Glossary

Air Releases (On Site) – Air releases include both fugitive air emissions and point source air emissions. Fugitive air emissions are all releases to air that don't occur through a confined air stream, such as equipment leaks, releases from building ventilation systems and evaporative losses from surface impoundments and spills. Point source air emissions, also called stack emissions, are releases to air that occur through confined air streams, such as stacks, ducts or pipes.

Carcinogenic Compounds – Carcinogenic compounds are substances that are directly involved in causing cancer. Carcinogenic releases consist of the following compounds:

Benzene, Benzo (G,H,I) Perylene, Cobalt, DI(2-ETHYLHEXYL) Phthalate, Lead, Nickel, Polycyclic Aromatic Compounds, and Styrene

Design Value – A design value is a statistic that describes the air quality status of a given location relative to the level of the National Ambient Air Quality Standards (NAAQS).

GreenChoice Program – GreenChoice is Austin Energy's renewable energy program that allows residential and commercial customers to meet their electricity needs by purchasing 100% renewable Texas wind power. Subscribers to GreenChoice pay less than one cent (\$.0075) more per kilowatt hour (kWh) for energy than non-subscribers.

Ground water – *Groundwater* is the water found underground in the cracks and spaces in soil, sand and rock. It is stored in and moves slowly through geologic formations of soil, sand and rocks called aquifers.

Municipal Water Use – The quantity of water use for municipal purposes in Texas is heavily dependent on population growth, climatic conditions, and water conservation measures. For planning purposes, municipal water use comprises both residential and commercial water uses. Commercial water use includes business establishments, public offices, and institutions, but does not include industrial water use. Residential and commercial uses are categorized together because they are similar types of uses, i.e., they both use water primarily for drinking, cleaning, sanitation, air conditioning, and landscape watering.

Other Water Use – Other water use includes manufacturing, steam-electric power, mining, livestock, and irrigated agriculture.

Renewable Energy – Renewable energy is generated from renewable sources such as wind, sun, biogas, and tidal energy. Energy from these sources is limitless and clean and does not add pollution to the atmosphere.

Surface water – Surface water is the water contained in above ground storage reservoirs. Austin area is fed by the Colorado River Basin and the Guadalupe River Basin. The Colorado River Basin includes Lake Travis and Lake Buchanan which provides water to Travis and Burnet counties. Lake Georgetown also feeds the region, specifically Williamson County. The Guadalupe River Basin includes Canyon Lake which provides water to Hays and Caldwell Counties. Surface water is reported as percent full, the ratio of conservation storage to conservation capacity expressed as a percentage.

Water Demand – The future amounts of water expected to be needed in dry-year conditions.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Environment	Water Consumption	Daily per capita water use in the Austin area	Texas Water Development Board	Texas Water Development Board, Historical Water Use Estimates. (n.d.) Water Use Summary Estimates by County. Retrieved November 30, 2015 from http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp
Environment	Water Consumption	Daily per capita water demand projections in the Austin area	Texas Water Development Board	Texas Water Development Board, Population and Water Demand Projections (n.d.), Water Demand Projections Data. Retrieved November 30, 2015 from http://www.twdb.texas.gov/waterplanning/data/projections/index.asp
Environment	Water Consumption	Municipal water use by source in the Austin area	Texas Water Development Board	Texas Water Development Board, Historical Water Use Estimates. (n.d.) Water Use Summary Estimates by County. Retrieved November 30, 2015 from http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp
Environment	Water Consumption	Ground Water vs. Surface Water Municipal Use by County	Texas Water Development Board	Texas Water Development Board, Historical Water Use Estimates. (n.d.) Water Use Summary Estimates by County. Retrieved November 30, 2015 from http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/index.asp
Environment	Water Consumption	Texas Water Development Board	Texas Water Development Board	Texas Water Development Board, Groundwater Data (n.d.). Retrieved November 30, 2015, from http://www.twdb.texas.gov/groundwater/data/index.asp
Environment	Water Consumption	Surface water levels by Austin area reservoirs	Texas Water Development Board	Texas Water Development Board, Water Data for Texas (n.d.). Retrieved November 30, 2015 from http://www.waterdatafortexas.org/reservoirs/municipal/austin
Environment	Water Quality	Notices of Violation - Water	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Annual Enforcement Reports. (n.d.) Table 5. Analysis of MSW Landfill Disposal in Texas in 2003, Grouped by COG. Selected years: 1999 through 2015. Retrieved May 31, 2016 from http://www.tceq.state.tx.us/enforcement/reports/AER/annenreport.html

Environment	Water Quality	Population served by public water providers in violation	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Retrieved June 13, 2016 through Public Information Request from: Hazel Hall, Division PIR & Records Coordinator / Special Projects. Phone (512) 239-4310 Email: hazel.hall@tceq.texas.gov
Environment	Water Quality	Distribution of Poor Water Quality	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Retrieved December 10, 2015 through Standard Data Request from: Cathy Anderson, Phone: (512) 239-1805 Email: cathy.anderson@tceq.texas.gov Shapefiles: Texas Commission on Environmental Quality, Download TCEQ GIS Data. Shapefile: TCEQ Regions, Permitted Wastewater Outfalls, TCEQ Segments, Surface Water Quality Monitoring Stations,
Environment	Energy Use	Mega-Watt Hours of Renewable Energy Generation	Austin Energy, Lower Colorado River Authority, Energy Future Holdings	Austin Energy. Corporate Reports, Annual Performance Reports – Electric Utility Commission, selected years: 2009 through 2014. (2013, October 8). Retrieved December 14, 2015. Lower Colorado River Authority, Official Statements. Retrieved December 17, 2015 from Elizabeth Ray, Sr. Paralegal, Lower Colorado River Authority. Phone: (512) 578-2959. Email: Elizabeth.Ray@lcra.org Energy Future Holdings – Investor Relations – SEC Filings. (n.d.) Retrieved December 14, 2015 from http://phx.corporate-ir.net/phoenix.zhtml?c=102498&p=irol-sec&secCat01.9_rs=51&secCat01.9_rc=10&control_selectgroup=Annual%20Filings
Environment	Energy Use	Sale of Renewable Energy – GreenChoice Subscribers	Austin Energy, US. Department of Energy	Austin Energy, GreenChoice Data for Residential and Commercial Customers. Retrieved from Luis Rivas, Public Information Office, Austin Energy. Phone: (512) 322 6303 Email: Luis.Rivas@austinenenergy.com
				U.S. Department of Energy, Energy Efficiency & Renewable Energy. The Green Power Network. Top Ten Utility Green Power Programs. Table Title: Top Green Power Sales. Sales (MWh/ year) figures. Selected years: 2001 through 2015. Retrieved June 21, 2016 from http://apps3.eere.energy.gov/greenpower/resources/tables/topten.shtml
Environment	Energy Use	System-wide Fuel Mix	Austin Energy, Lower Colorado River Authority,	Austin Energy. Corporate Reports, Annual Performance Reports – Electric Utility Commission, selected years: 2009 through 2014. (2013, October 8). Retrieved December 14, 2015.

			Energy Future Holdings	Lower Colorado River Authority, Official Statements. Retrieved December 17, 2015 from Elizabeth Ray, Sr. Paralegal, Lower Colorado River Authority. Phone: (512) 578-2959. Email: Elizabeth.Ray@lcra.org Energy Future Holdings – Investor Relations – SEC Filings. (n.d.) Retrieved December 14, 2015 from http://phx.corporate-ir.net/phoenix.zhtml?c=102498&p=irol-sec&secCat01.9_rs=51&secCat01.9_rc=10&control_selectgroup=Annual%20Filings
Environment	Air Quality	Ground Level Zone	Capital Area Council of Governments	Texas Commission on Environmental Quality. Design Values. Capital Area Council of Governments [Distributor]. Retrieved December 14, 2015 from Andrew Hoekzema, Air Quality Program Manager, Capital Area Council of Governments. Phone: (512) 916 – 6043 Email: ahoekzema@capcog.org
Environment	Air Quality	Annual Emissions of Ozone Precursors	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Emissions Inventory Data. Retrieved December 9, 2014 from Jill Dickey-Hull, Team Leader, Point Source Emissions Inventory, Texas Commission on Environmental Quality. Phone: 512-239-5912. Email: jill.dickey@tceq.texas.gov
Environment	Air Quality	On Site Air Release/Disposal	United States Environmental Protection Agency	United States Environmental Protection Agency, Toxics Release Inventory (TRI) Program, TRI Basic Data Files: Calendar Years 1987 – 2014, from https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-2014
Environment	Solid Waste/Recycling	Solid Waste Generation	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Annual Summary of Municipal Solid Waste Management in Texas. (n.d.). Retrieved December 2, 2015, from https://www.tceq.texas.gov/permitting/waste_permits/waste_planning/wp_swasteplan.html
Environment	Solid Waste/Recycling	Notices of Violation: Solid and Hazardous Waste	Texas Commission on Environmental Quality	Texas Commission on Environmental Quality, Annual Enforcement Reports. (n.d.) Table 5. Analysis of MSW Landfill Disposal in Texas in 2003, Grouped by COG. Selected years: 1999 through 2015. Retrieved May 31, 2016 from http://www.tceq.state.tx.us/enforcement/reports/AER/annenfreport.html
Environment	Solid Waste/Recycling	City of Austin Waste Diversion	Austin Resource Recovery, Texas Commission on	City of Austin, Austin Resource Recovery. City Performance Measures. Retrieved December 29, 2015 from Sarah Hoover, Waste Diversion Planner, Austin Resource Recovery, City of Austin. Phone: 512-974-3505. Email: sarah.hoover@austintexas.gov Texas Commission on Environmental Quality, Central Registry Query – Additional ID Search. Data on Tons Diverted by Landfills. Retrieved May 31, 2016, from http://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=addnid.IdSearch

			Environmental Quality.	
Environment	Hazardous Waste	On-Site Release/Disposal	US Environmental Protection Agency	United States Environmental Protection Agency, Toxics Release Inventory (TRI) Program, TRI Basic Data Files: Calendar Years 1987 – 2014, from https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-2014
Environment	Hazardous Waste	On-Site Release of Carcinogenic Compounds	US Environmental Protection Agency	United States Environmental Protection Agency, Toxics Release Inventory (TRI) Program, TRI Basic Data Files: Calendar Years 1987 – 2014, from https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-2014
Environment	Hazardous Waste	Toxic Releases Map 2014	US Environmental Protection Agency, Texas Commission on Environmental Quality	United States Environmental Protection Agency, Toxics Release Inventory (TRI) Program, TRI Basic Data Files: Calendar Years 1987 – 2014, from https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-2014 Texas Commission on Environmental Quality, Download TCEQ GIS Data. Shapefiles: TCEQ Regions, Landfill Sites, Petroleum Storage Tanks, Radioactive Waste Site, SuperFund Sites. Retrieved May 31, 2016 from https://www.tceq.texas.gov/gis/download-tceq-gis-data/#water



Health

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Austin Area Sustainability Indicators (2016) – Health

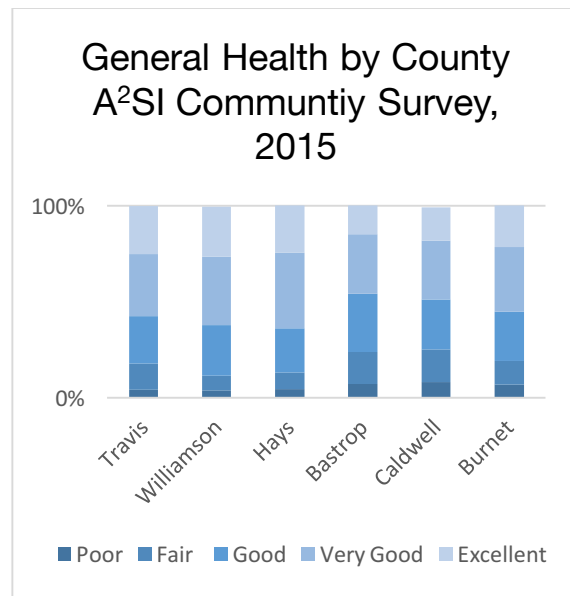
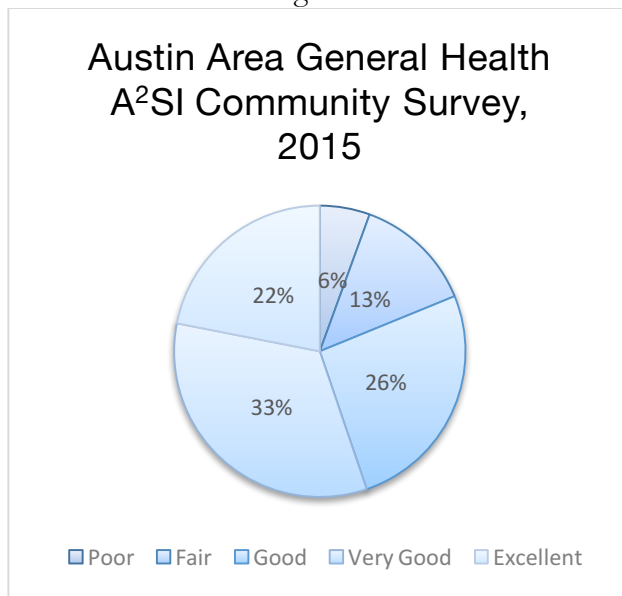
Table of Contents

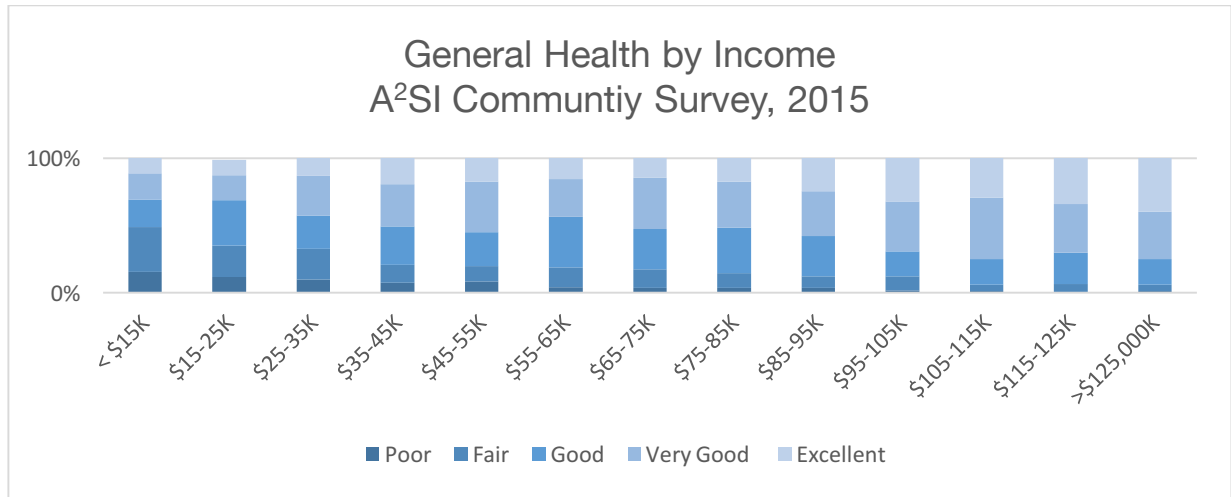
Health.....	2
Health Access	3
Insurance Coverage	4
Affordable Care Act.....	6
Insurance Coverage by Income.....	7
Medicaid Enrollment	8
Medicare Program.....	9
Physical Health.....	10
Availability of Physicians	10
Teen Pregnancy.....	12
Infant Mortality Rate.....	12
Smoking.....	13
Leading Causes of Death.....	14
Mental Health.....	14
Availability of Psychiatrists	14
Suicide Rates.....	15
Dental Health	17
Summary and Conclusions	20
Appendix A: Glossary	21
Appendix B: Bibliography	23

Health

Indicators in this section identify critical trends in the health and well-being of Austin area residents. As with many equity-related indicators, the consequences of not having health insurance fall disproportionately on lower income residents. Within a sustainability view, people’s basic personal needs, such as health, must be at the core of a sustainable region. It is difficult to focus on environment, equity, and civic engagement if people’s basic health needs are not satisfied. Those who lack health insurance coverage are at greater risk for bankruptcy and preventable illness. These data present policy makers, philanthropists, non-profits, community leaders, and residents with performance measures crucial to gauging the overall well-being of a region.

People in and around the Austin region generally feel good about their health, with nearly 60% of residents saying their health is “excellent or very good”. However, as we will see in this section, health related outcomes are highly dependent on social, economic, and geographic factors. For example, Hays, Williamson and Travis counties have higher percentages of people reporting excellent and very good health, whereas Caldwell County has nearly 10% of residents reporting poor health. Income also appears to factor directly on general health. Those with the highest incomes reported feeling “very good” or “excellent” in significantly higher numbers, while lower income groups reported poorer health. This highly correlated response may be attributed to access to affordable health coverage.

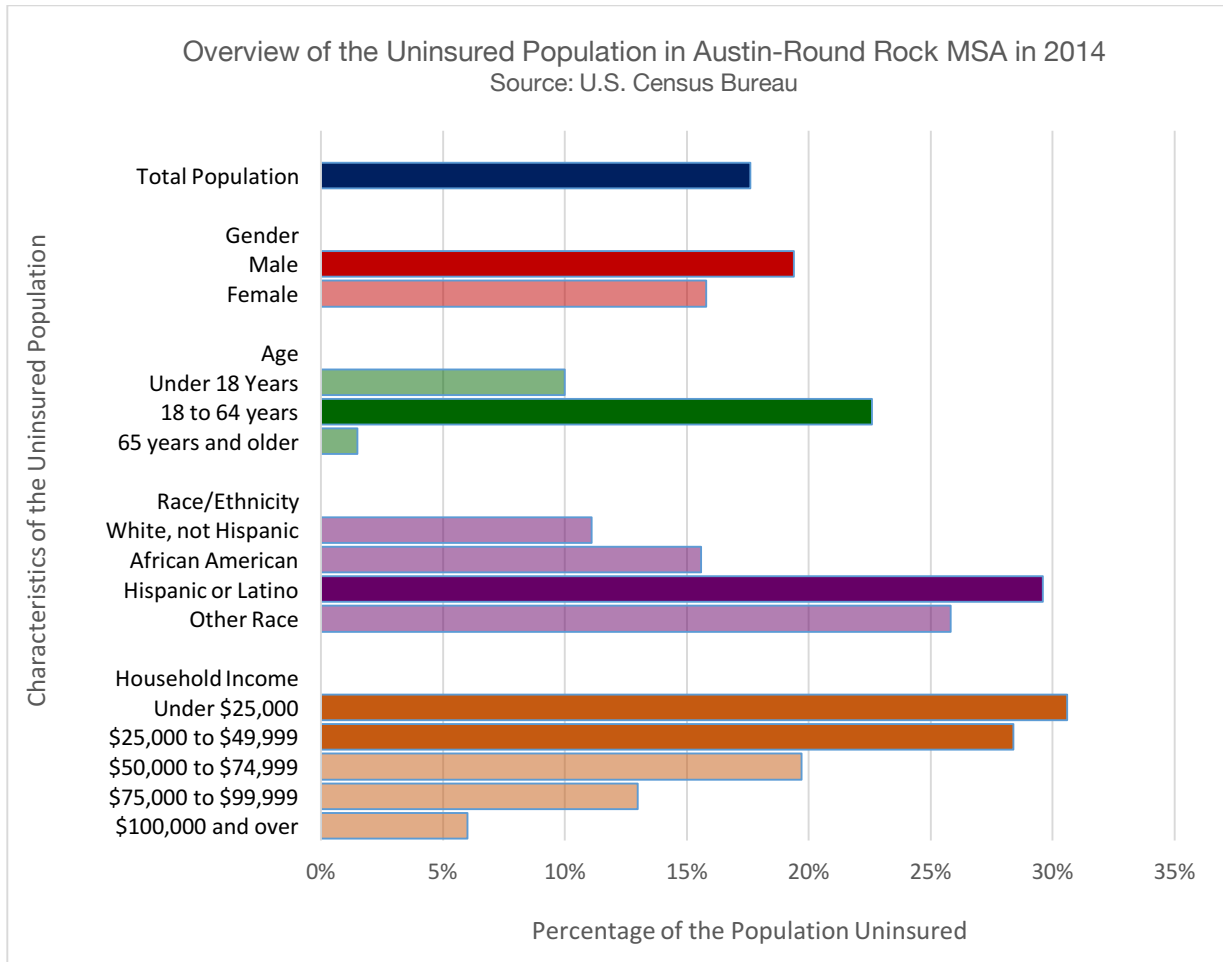




Health Access

Availability of health insurance is a critical factor in the maintenance of both personal and public health. The inability to access health care leads to unnecessary, more costly, and more serious health problems; problems that routine care might have prevented had it been available or affordable. Demographic characteristics, such as high socioeconomic status and non-minority status, make individuals more likely to purchase health insurance. Low perception of need, risk, or value from health insurance decrease an individual’s likelihood of purchasing it.

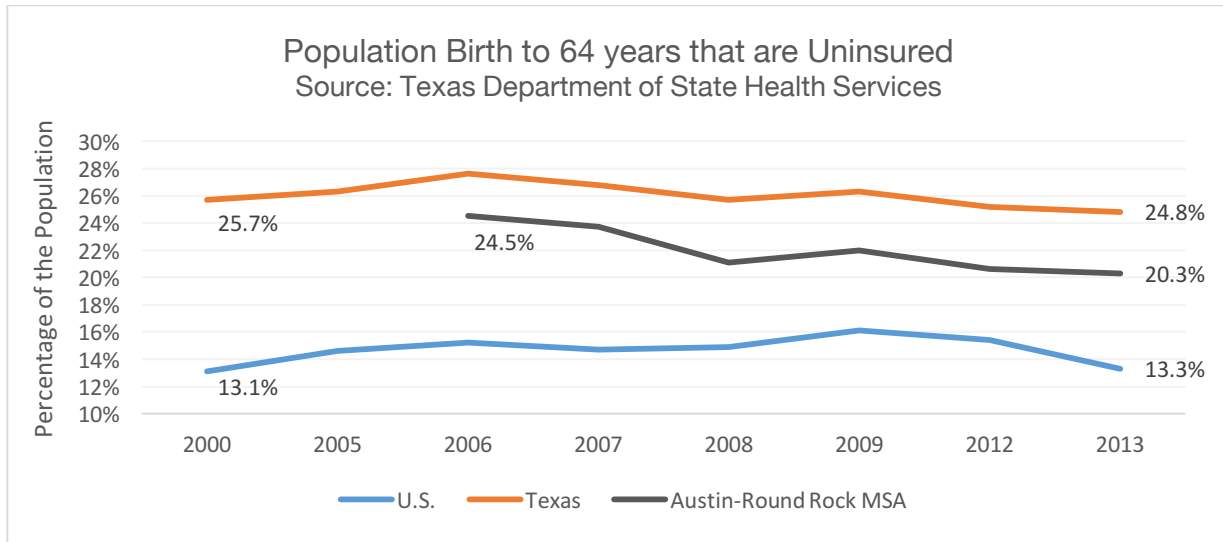
The data illustrates that disparities in access to health care persist. The most recent data from the American Community Survey shows that the uninsured in the Austin-Round Rock MSA are most likely to be adults under 65 years living in households of Hispanic or Latino ethnicity and earning less than \$25,000 per year.



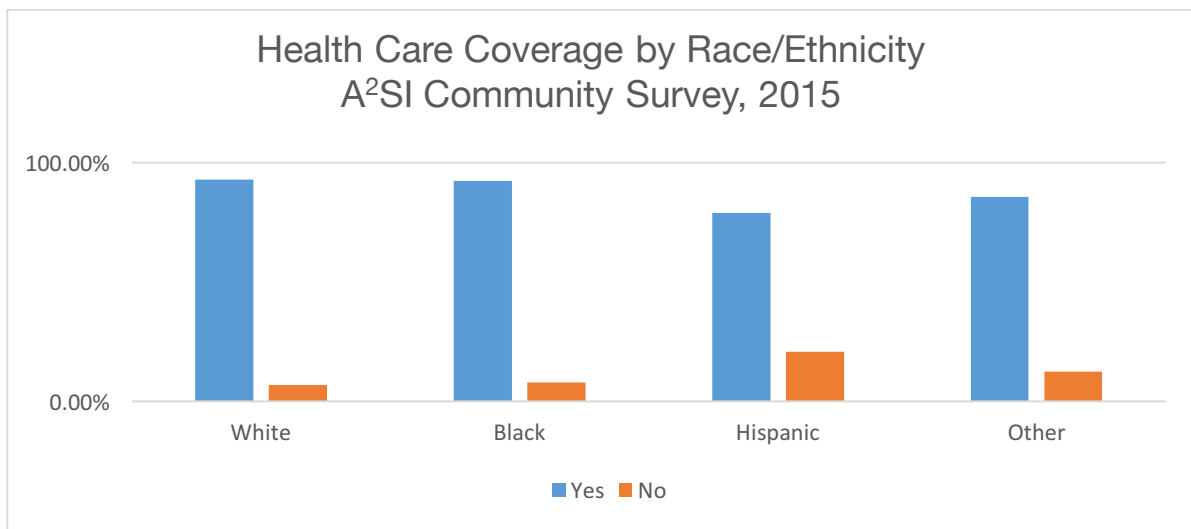
Insurance Coverage

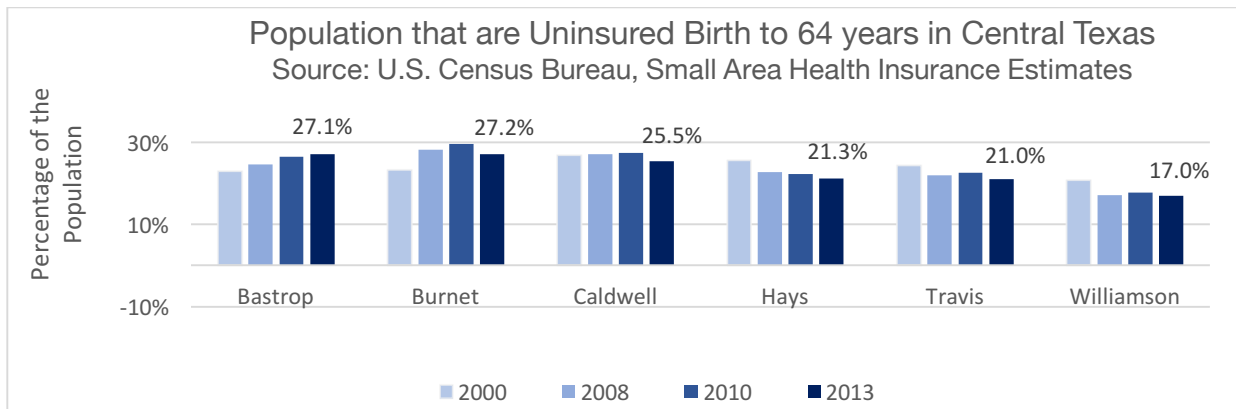
Health insurance coverage improves access and quality of medical care to individuals and contributes to the overall health of the community. Those without insurance typically delay treatment and are more likely to seek care through emergency rooms or public hospitals, which increases the financial burden for states. Being uninsured or underinsured can be a great financial hardship for individuals who find themselves with a medical emergency or chronic condition that requires extensive medical support.

Unfortunately, Texas continues to have the highest rate of people without insurance in the nation with approximately 10% more of the population uninsured compared to the national average rate of uninsured. The Austin area, with the exception of Bastrop and Burnet counties, has a lower rate of uninsured people when compared to the state as a whole, but still higher than the national average. The good news is that the percentage of uninsured people in the Austin-Round Rock MSA has decreased and is now at levels lower than when the Great Recession began in 2008.



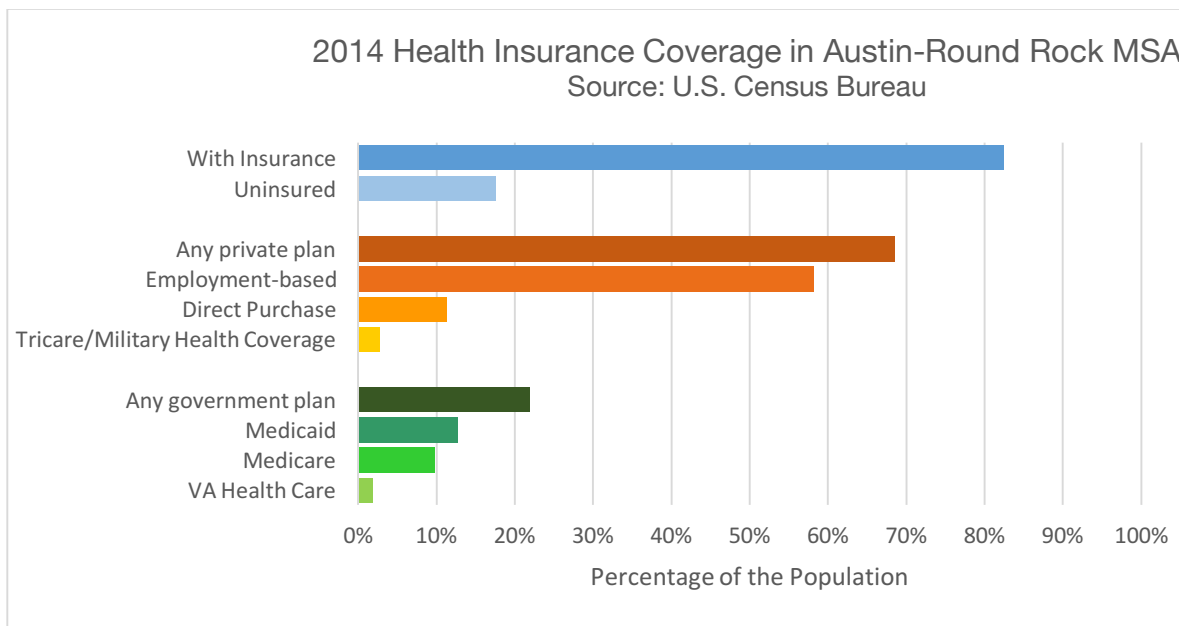
In 2015, the Community Survey data indicates that approximately 90% of Austin area residents report having some kind of health coverage (that including insurance, HMOs or Medicare). It is unclear if this trend (approximately 10% more people reporting health coverage than Texas Department of State Health Services reported for the Austin-Round Rock MSA in 2013) represents the effect of the ACA or is reflective of some unknown bias in our sample. These reported rates, however, are sensitive to demographic variables with approximately 20% of Hispanic respondents reporting no health coverage.



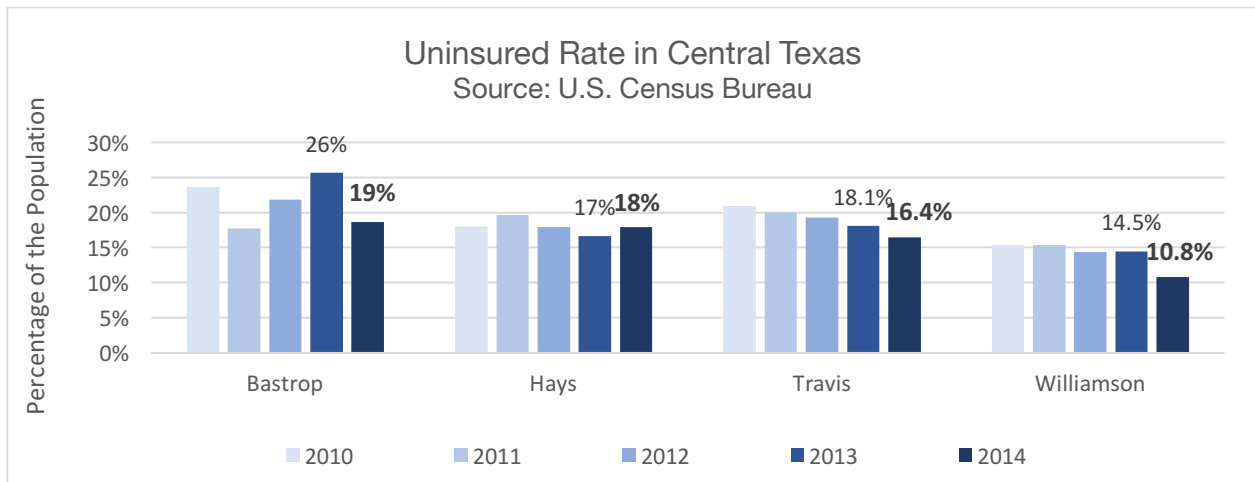


Affordable Care Act

The Affordable Care Act (ACA) attempts to decrease the number of uninsured individuals in the United States by mandating that all individuals have health insurance coverage and by providing individuals between 100% and 400% of the federal poverty level (FPL) with subsidies to purchase health insurance coverage. The ACA mandate took effect in 2014. Data reflecting the possible effects of the ACA by county level will not be released until mid-2016 (and to date have not been incorporated into the A²SI indicators). Data from the U.S. Census Bureau American Community Survey shows gains in health access for the Austin-Round Rock MSA. This outcome is mainly due to local governments and community organizers promoting enrollment in the federal marketplace. In 2014, over 80% of the population had health insurance, with the majority having an employment-based plan.

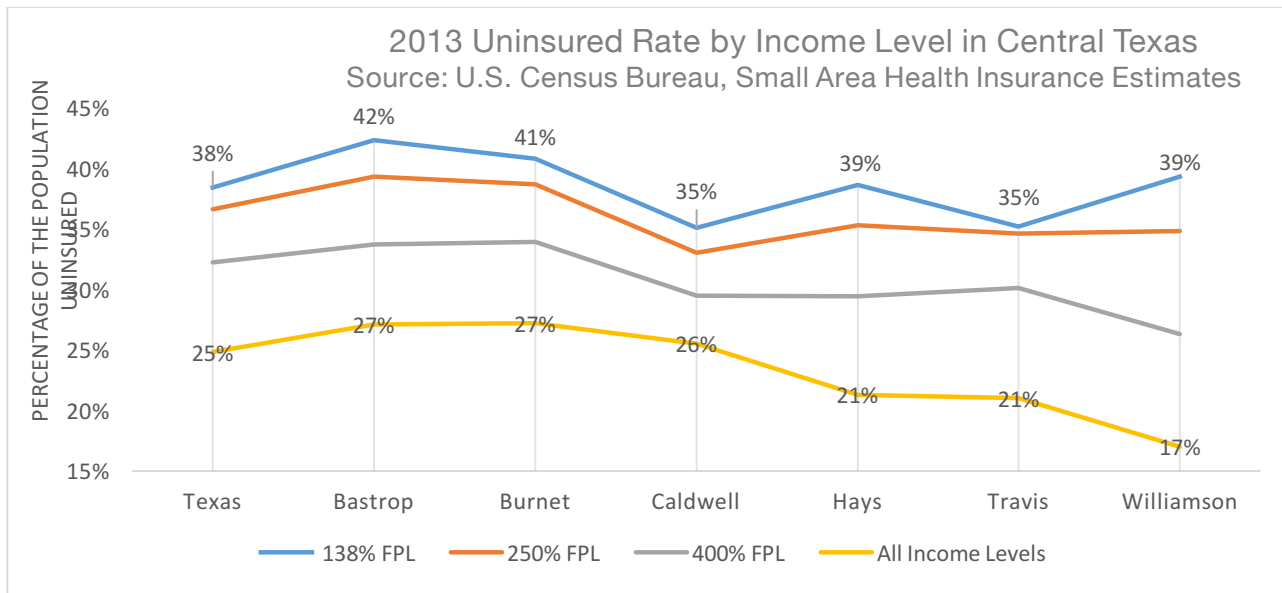


Bastrop County had the greatest improvement in the uninsured rate, with a decrease of 7 percentage points from 2013 to 2014, followed by Williamson County (-3.7) and Travis County (-1.7).

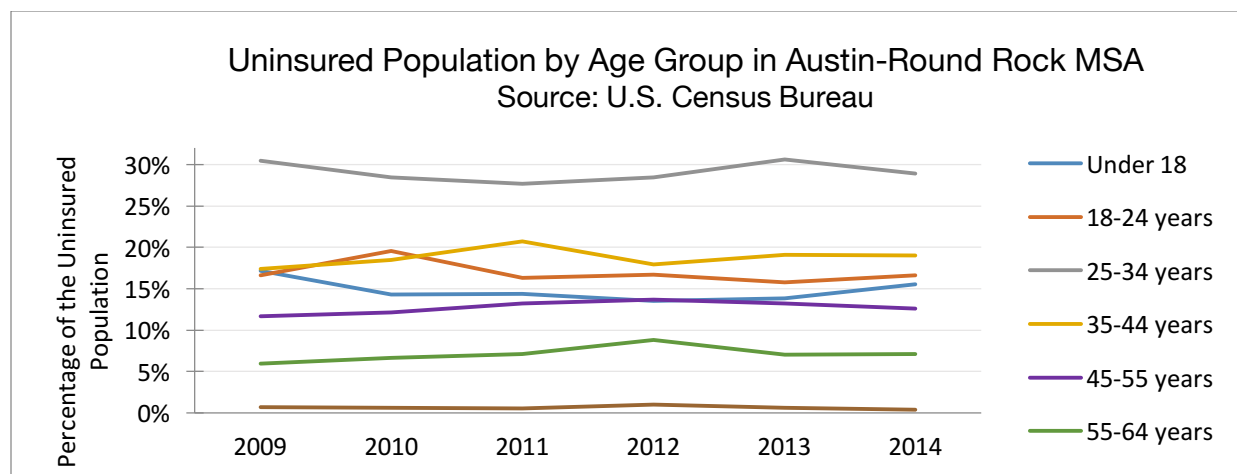


Insurance Coverage by Income

As of 2013, the highest percentage of uninsured Austin area residents were found in the lower-income groups, earning below 138% of the Federal Poverty Level. Though the ACA provides for the expansion of Medicaid to all legal residents living at or below 138% of the Federal Poverty Level (FPL), Texas is one of 20 states that has not expanded Medicaid services leaving many residents uninsured. Additionally, there is a persistent “coverage gap” that is defined by those who earn too much to qualify for Medicaid, yet earn too little to qualify for subsidies in the exchange.

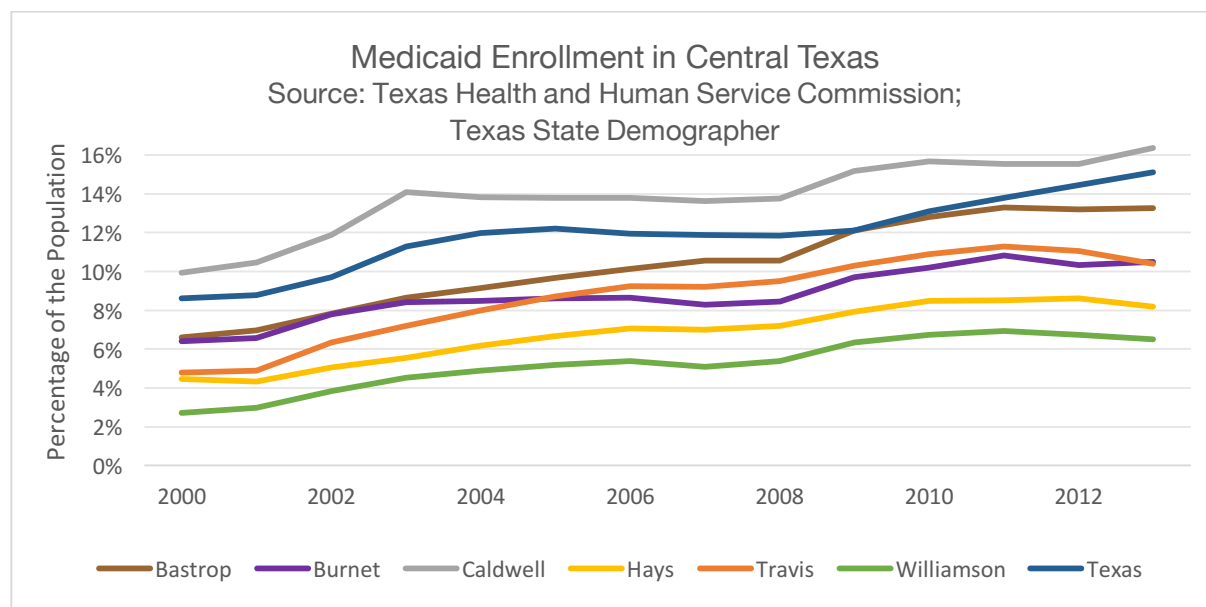


Delving deeper into the uninsured population, distribution by age groups has remained relatively stable for the past 6 years from 2009-2014. In 2014, people between 25-34 years of age made up the majority of the uninsured population at 28.9% followed by people 35-44 years of age (19%), minors under 18 years (15.5%), young adults 18-24 years (16.6%), people 45-55 years of age (12.6%), people 55-64 years (7.1%), and retired and elderly people 65 years and over (0.4%).



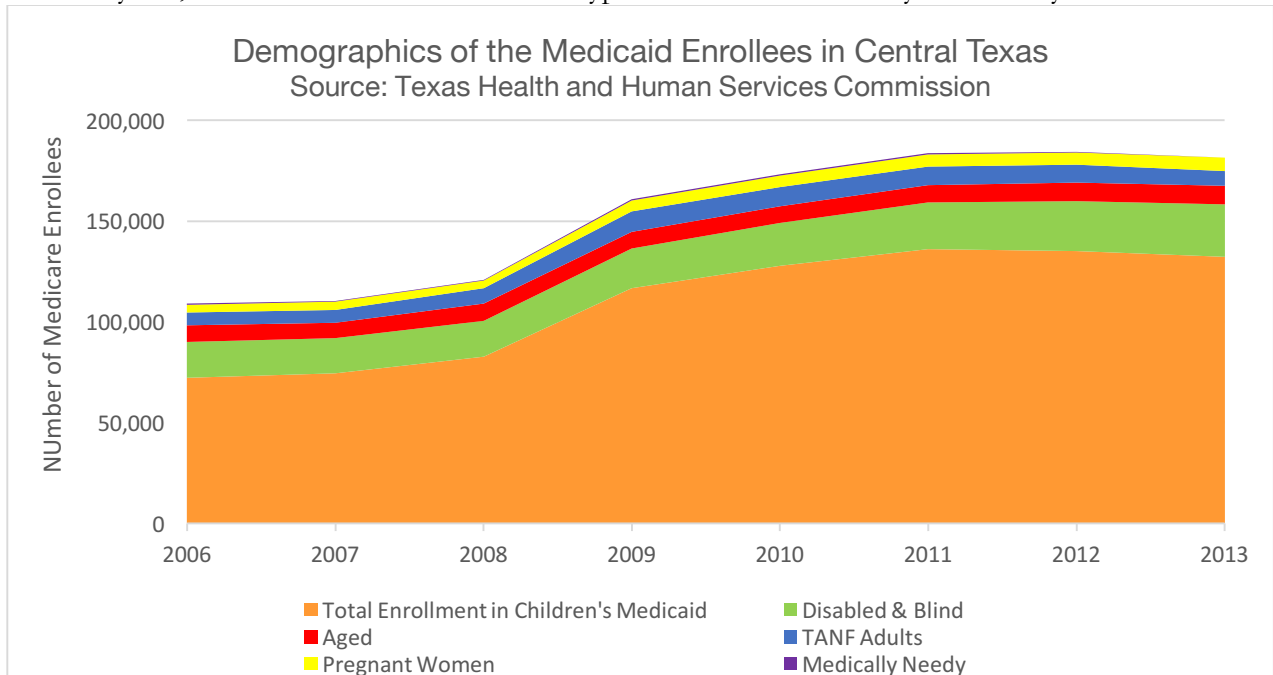
Medicaid Enrollment

Medicaid enrollment in Central Texas has remained relatively flat in recent years, with the largest Central Texas counties (Hays, Travis, and Williamson) experiencing a slight decrease from 2012 to 2013. Economic factors, the availability of other types of insurance and federal changes to the Medicaid law and regulations affect Medicaid enrollment. Since Medicaid primarily serves low-income individuals, a decrease in unemployment can result in a decrease in the number of people eligible for Medicaid due to their income level. At the height of the Great Recession in 2010, Austin-Round Rock MSA’s seasonally adjusted unemployment rate in August was at 7.4%. By August 2013, unemployment decreased to 5.2%. However, Medicaid enrollment is expected to increase due to provisions in the Affordable Care Act, streamlining the application and enrollment process. Medicaid will also increase, should Texas policy makers decide to expand Medicaid to adults earning at or below 138% of the Federal Poverty Level.



In 2013, the majority of Medicaid recipients in Central Texas were children (73%), followed by individuals with disabilities (14%), those 65 years and older (5%), adults receiving TANF (4%),

pregnant women (3%), and the medically needy (0.02%). Though Medicaid enrollment has increased over the years, the ratio between the different types of enrollees have stayed relatively consistent.



Medicare Program

The Medicare program covers 98 % of the Central Texas population aged 65 years and older, as well as many people who receive Social Security disability benefits. There has been a gradual increase in Medicare enrollment, because of a qualifying disability, such as end-stage renal disease.

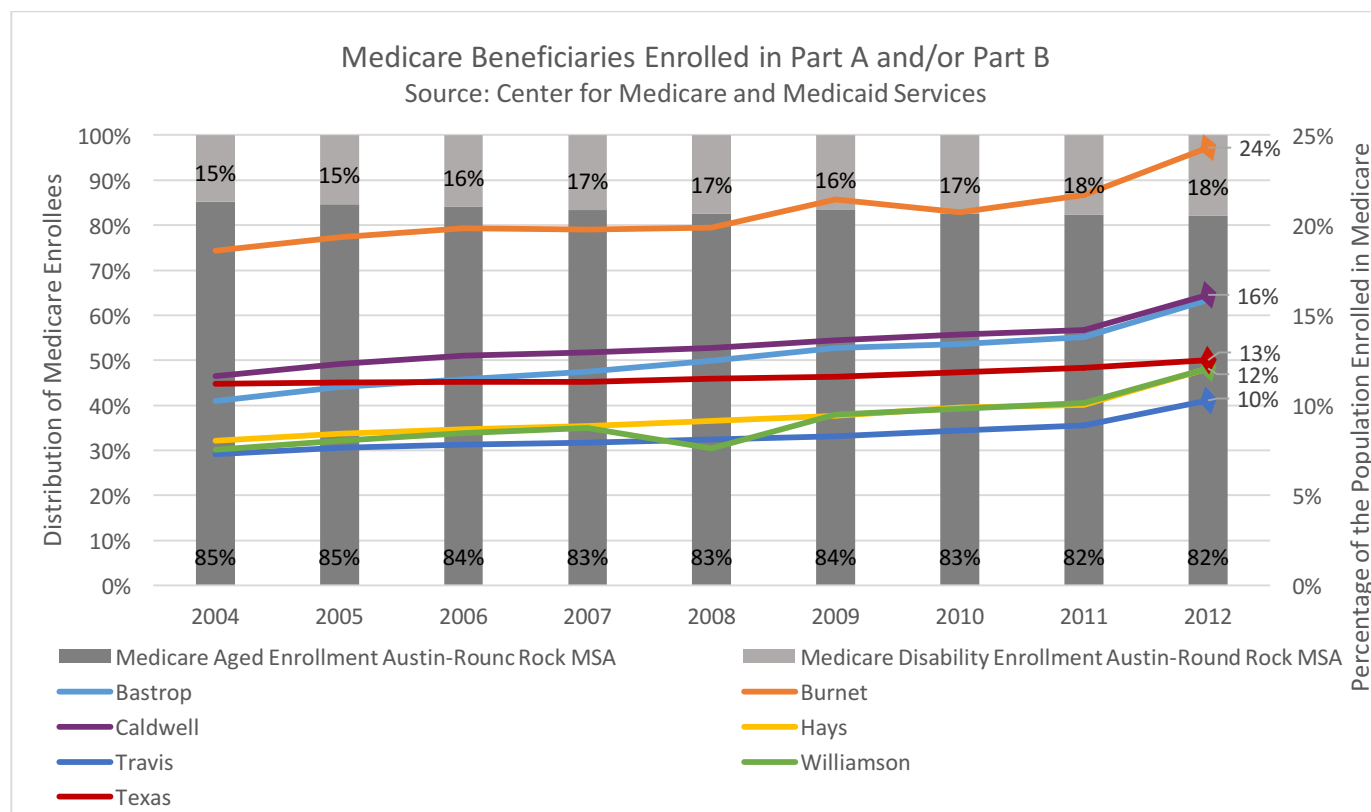


Table 1. 2013 Characteristics of Enrollees of Medicare Program Part A & Part B

		Austin-Round Rock MSA	Texas	U.S.
Gender	Female	53.5%	54.6%	54.9%
	Male	46.5%	45.4%	45.1%
Race/Ethnicity	White Non-Hispanic	74.7%	68.9%	79.9%
	African-American	16.3%	9.9%	9.8%
	Hispanic	6.5%	18.1%	5.9%
	Other	3.51%	3.1%	4.3%
Total Enrollees in Medicare Part A & Part B		186,557	3.2 Million	50 Million
Average Age of Medicare Beneficiary		71		
Total Actual Cost of Medicare Program		\$2.5 Million	\$235 Billion	\$324.4 Billion
Total Cost per Capita		\$9,457	\$10,388	\$9,457

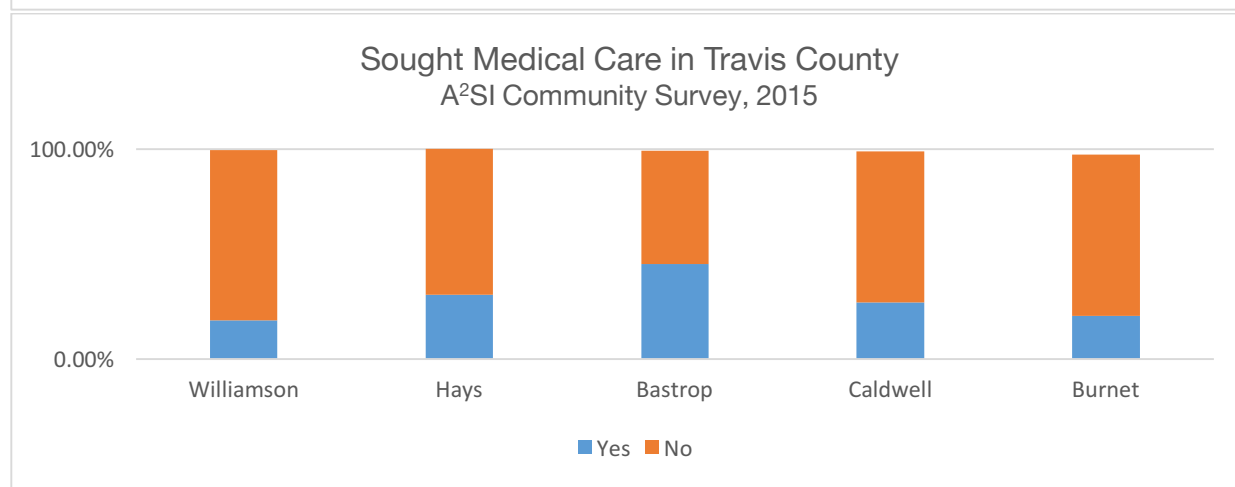
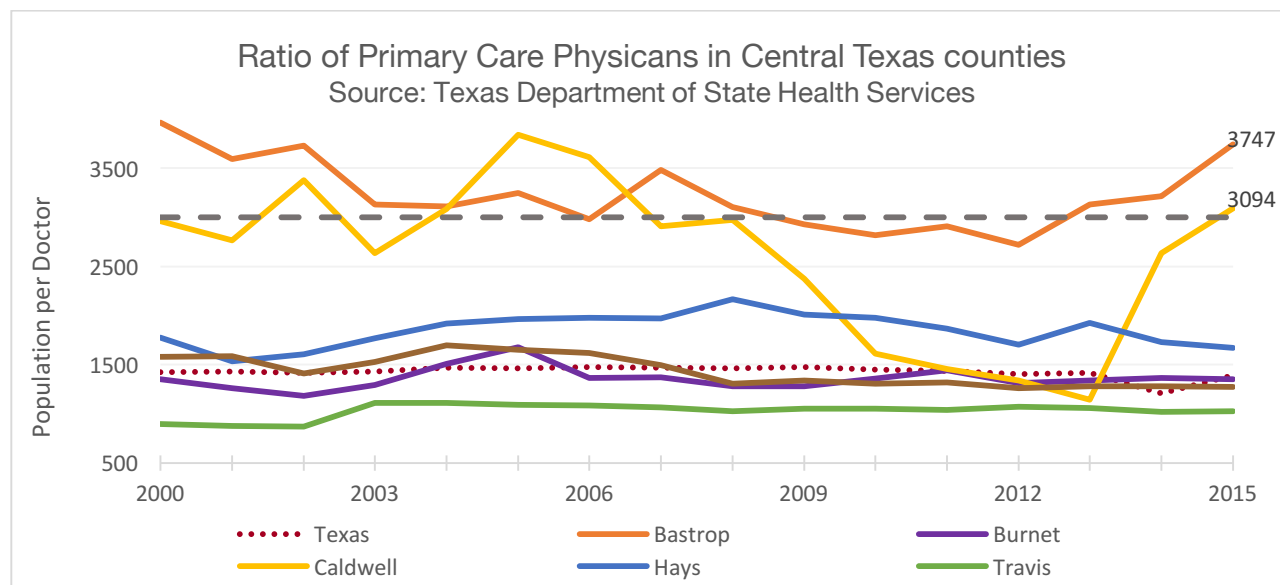
Physical Health

Lifestyle choices can have a significant impact on personal and family health. Compounded across a population and multiplied by factors such as a shortage of health professionals and public education and awareness, these choices can be a barrier to aspirations of sustainability for an individual, a household and a region.

Availability of Physicians

The state and federal government have identified Bastrop and Caldwell counties as having acute shortages of primary health care personnel. As a result, access to primary care physicians is challenging in these counties. Bastrop, Caldwell, and Hays counties have had continuously greater

shortages of primary care physicians than the Texas state average. Travis County has the most primary care physicians per capita, with 1,030 individuals per primary care physician. This is also reflected in the A²SI Community Survey, with a higher percentage of Bastrop, Hays, and Caldwell County residents reporting seeking medical care in Travis county.



Where people seek health advice or health care is a factor of availability of physicians, as well as other socio-demographic factors. For example, in the A²SI Community Survey 11% of self-identified Blacks and 15% of self-identified Hispanics sought care in public health clinics or community health centers. Approximately 15% of African Americans also reported seeking care in either the emergency room or urgent care center.

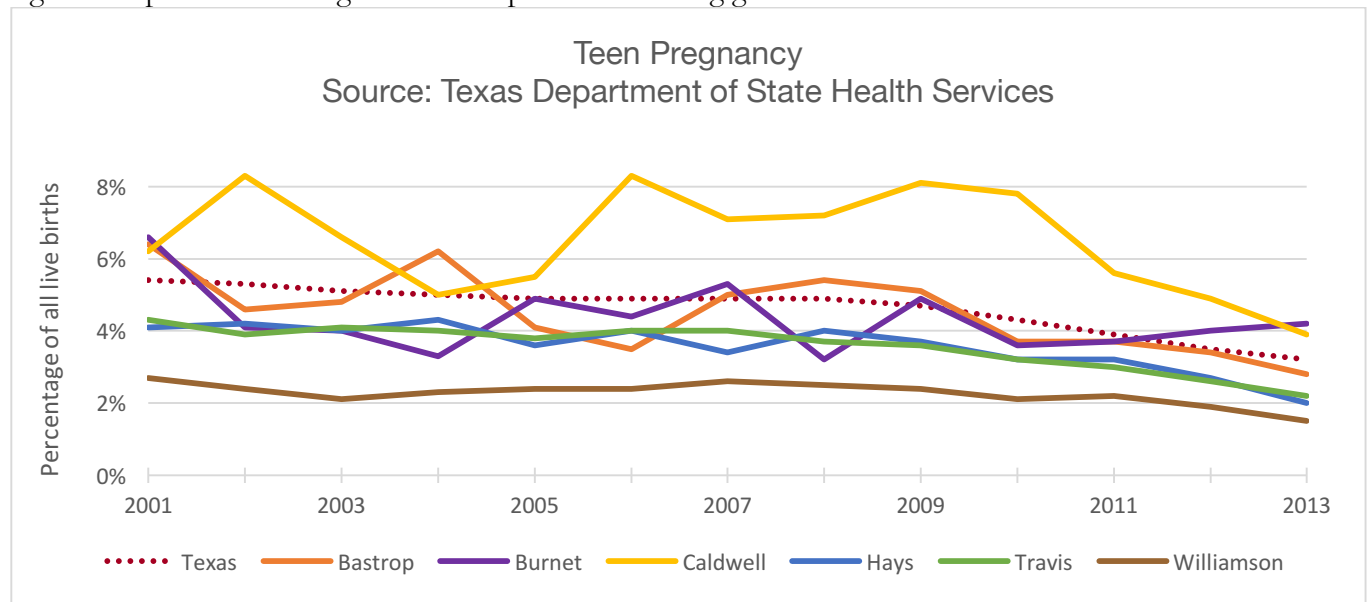
Race/ Ethnicity	Public or Community					
	Doctors Office	Health Clinic	Emergency Room	Urgent Care	Internet	Family or Friends
White	80.8%	3.3%	4.1%	0.5%	3.0%	1.5%
Black	66.3%	10.5%	7.2%	1.7%	7.7%	3.3%

Hispanic	63.4%	15.1%	3.7%	0.7%	2.7%	3.7%
Other	67.5%	7.5%	4.5%	2.5%	1.5%	3.5%

Teen Pregnancy

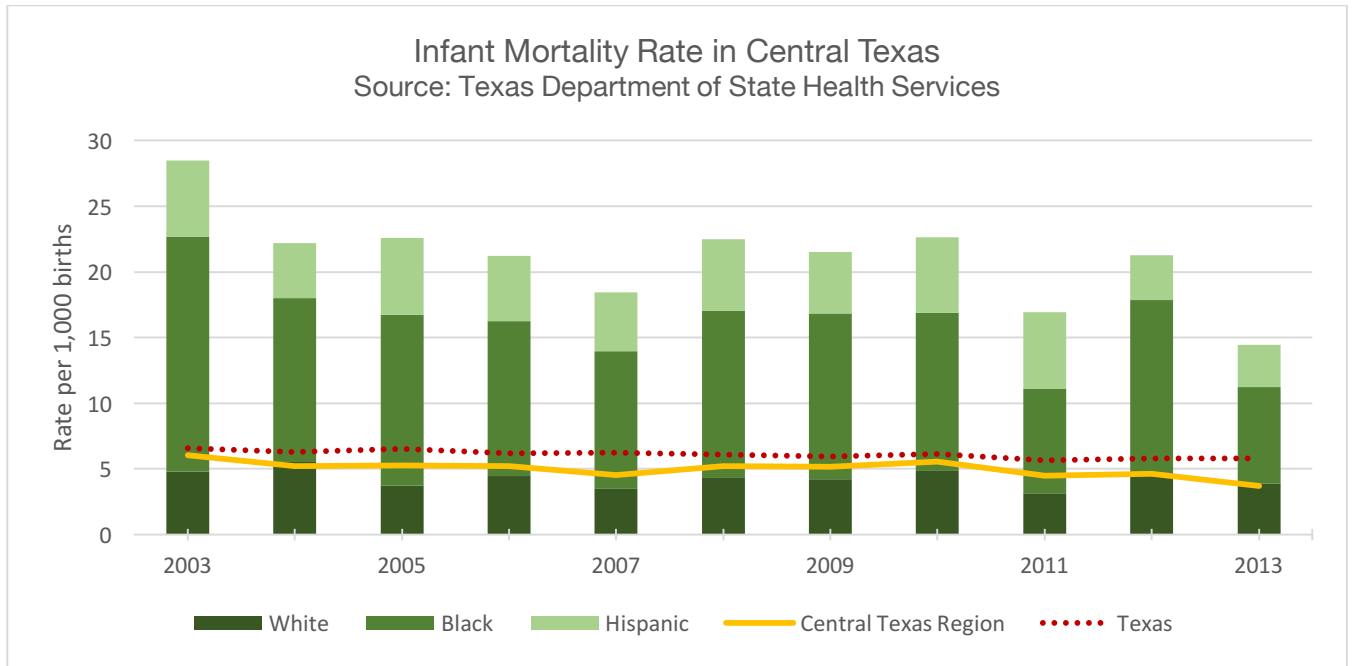
Teen parents and their children face immediate as well as long-term impacts related to their health, education, social, and economic opportunities. Teen mothers typically have lower educational attainment and are at greater risk of living in poverty. This, in turn, can have considerable social and economic costs to the community as a whole.

The live birth rate to mothers 17 years and under has steadily declined in Austin area counties, with the exception of Burnet County where there has been a steady increase that started in 2010. Caldwell (3.9%) and Burnet (4.2%) counties continue to have rates of teen pregnancy greater than the state average (3.2%). Williamson County has the lowest percentage of teen pregnancy in the region with 1.5% of all live births being born to mothers 17 years and under. Teen pregnancy and birth rates are significant predictors of high school dropout rates among girls.



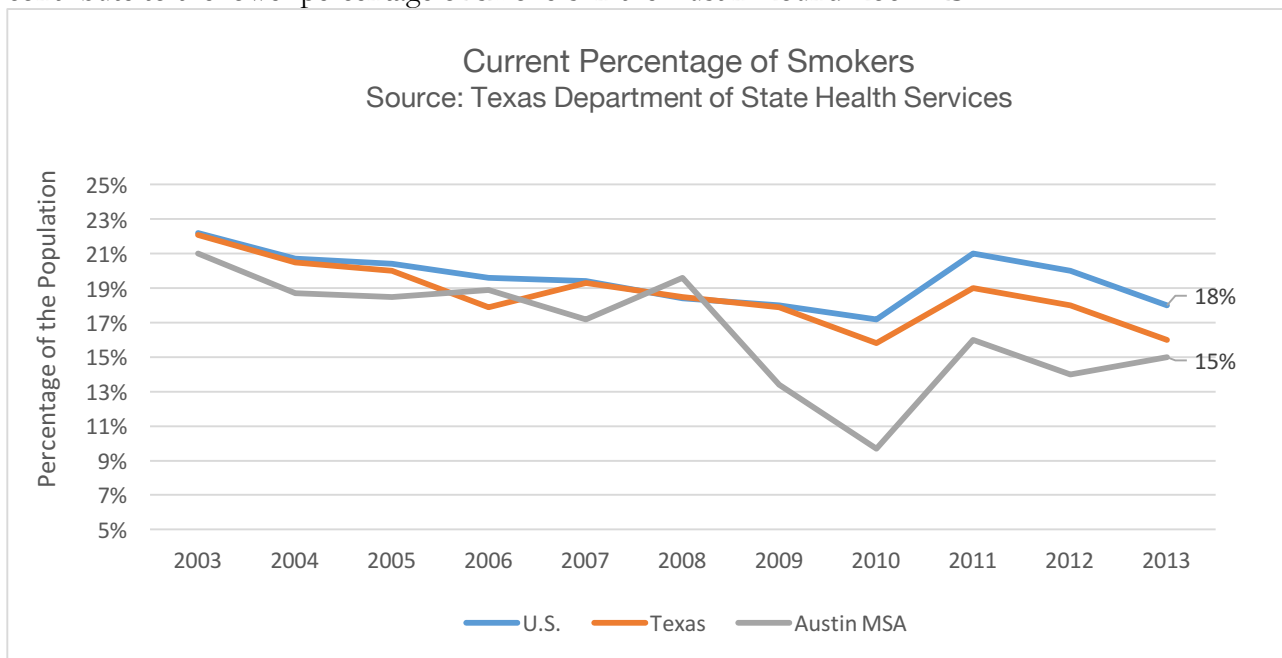
Infant Mortality Rate

Central Texas has been able to lower its infant mortality rate (IMR) by 45% from 2003 to 2013. Infant mortality among Blacks experienced the greatest improvement with a 59% reduction in IMR from 2003 to 2013, followed by Hispanics (45%) and Whites (20%). Though Blacks had the greatest improvement, in 2013 the IMR for Black mothers remained two times higher (at 7.4 infant deaths per 1,000 births) than the rates for White (3.9) and Hispanic (3.2) mothers.



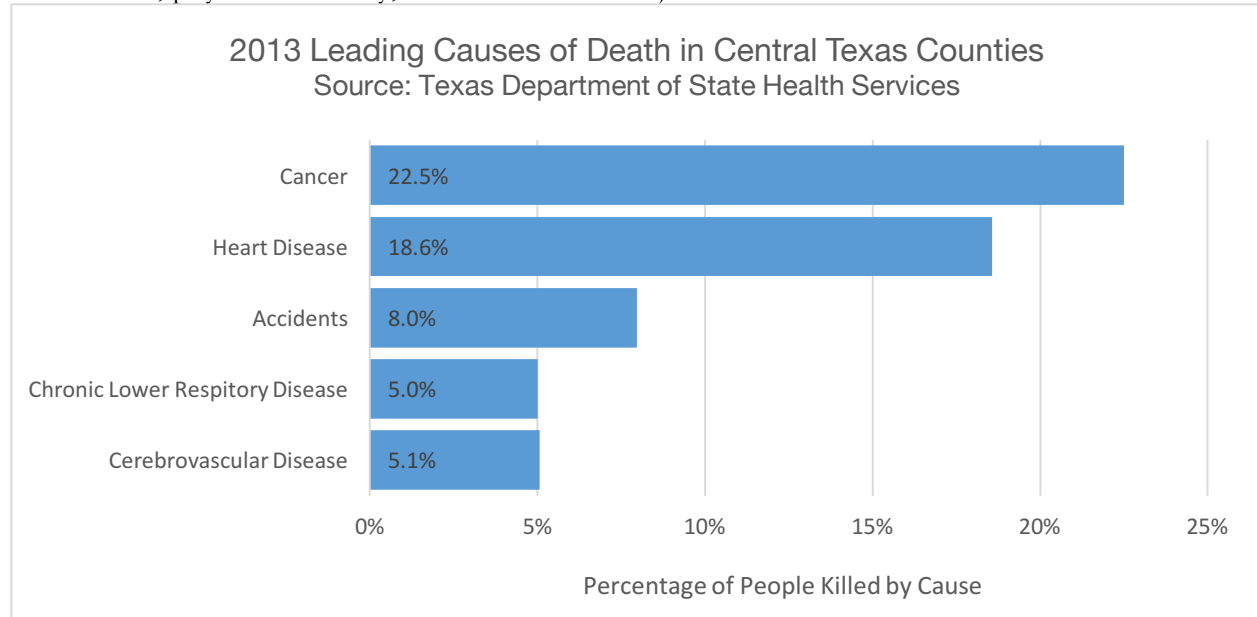
Smoking

Fifteen percent of Austin-Round Rock MSA residents reported being current smokers. The upswing in current smokers from 2010 to 2011 could be attributed to the popularity of e-cigarettes and smokeless tobacco. Since 2011, many organizations and governments have modified existing smoke-free policies to include the use of e-cigarettes and smokeless tobacco. Policies such as this may contribute to the lower percentage of smokers in the Austin-Round Rock MSA.



Leading Causes of Death

In 2013, three of the five leading causes of death in Central Texas were chronic diseases, including heart disease, cancer, and chronic lower respiratory disease. Together, these three chronic diseases claimed the lives of more than 4,000 Central Texan residents. Modifiable risk factors such as tobacco use, physical inactivity, and nutrition are major contributors to chronic disease.

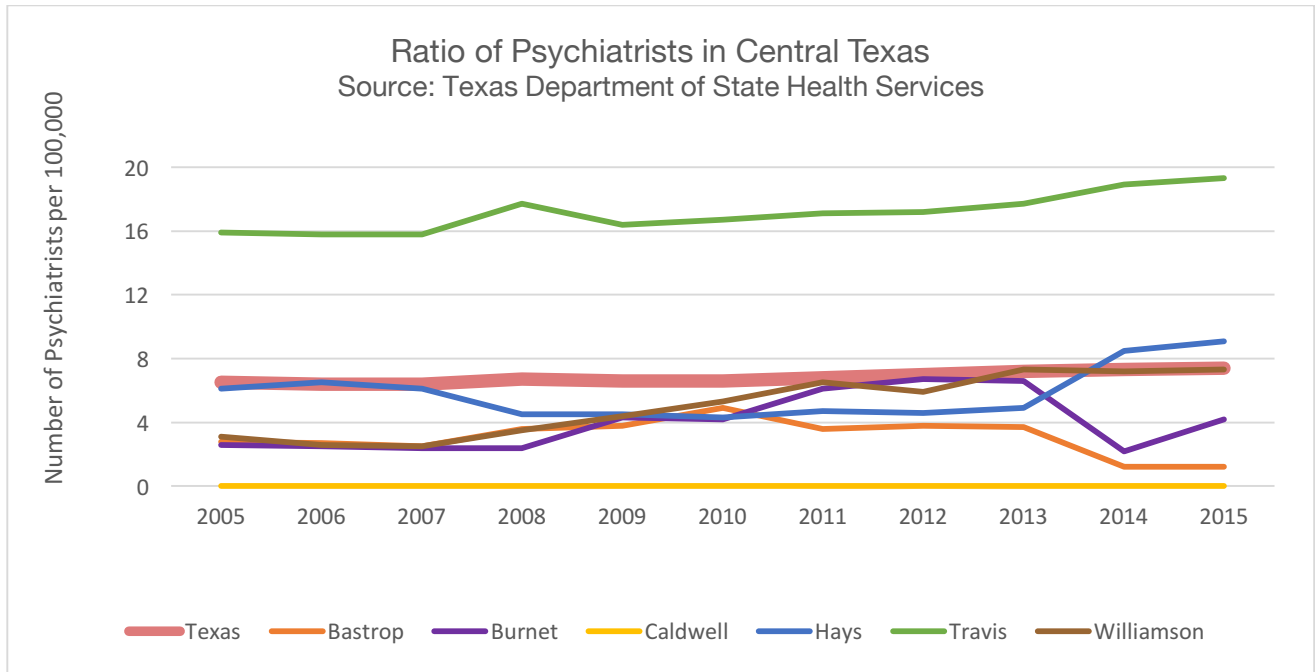


Mental Health

By and large, the public mental health system has not expanded to keep pace with the growing demand for services. The Austin area lacks adequate resources for those who experience mental, emotional, or substance use disorders. The disparities are particularly notable for those with lower household incomes. As with physical health, these disparities can be a barrier to aspirations of sustainability for an individual, household, community, or region.

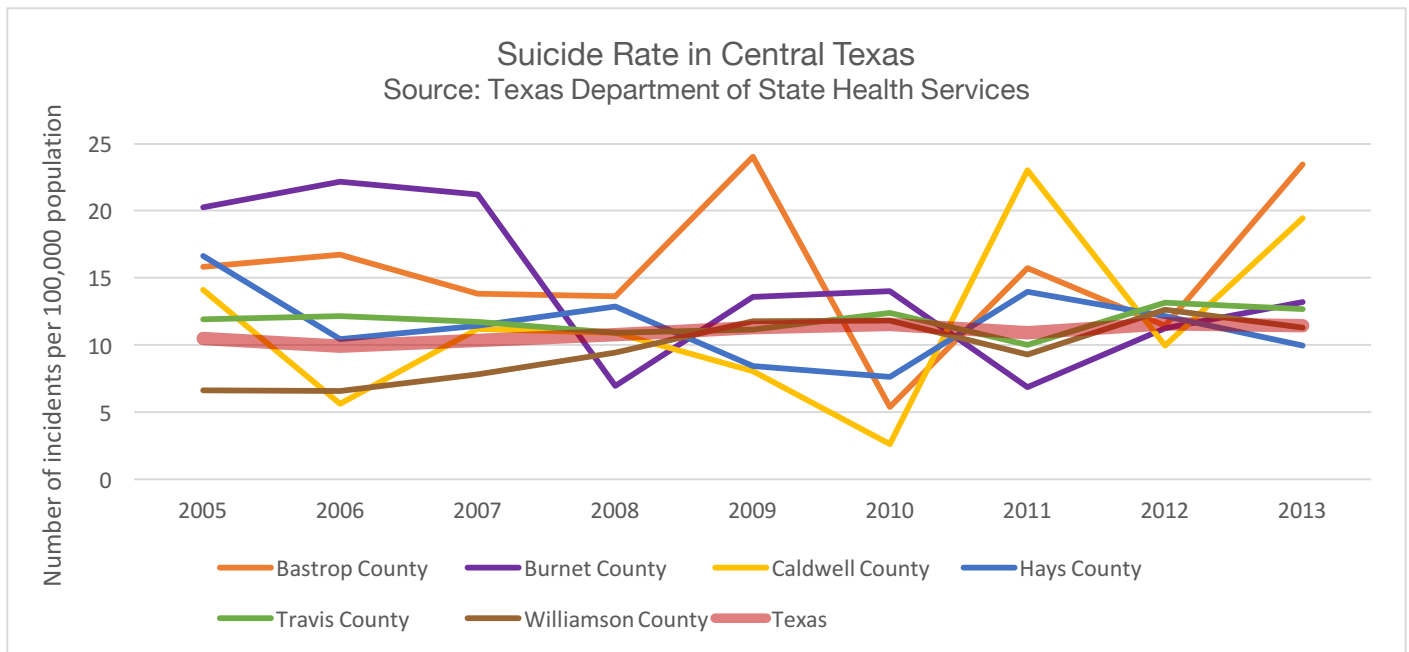
Availability of Psychiatrists

Travis County has the highest ratio of psychiatrists per 100,000 residents in the Austin region. Most Austin area counties fall below the state ratio average of psychiatrists per 100,000 people. This leaves Central Texan residents with an inadequate supply of available mental health medical professionals. Bastrop and Burnet counties are designated as federal Health Provider Shortage Areas for mental health. There are no psychiatrists in Caldwell County.

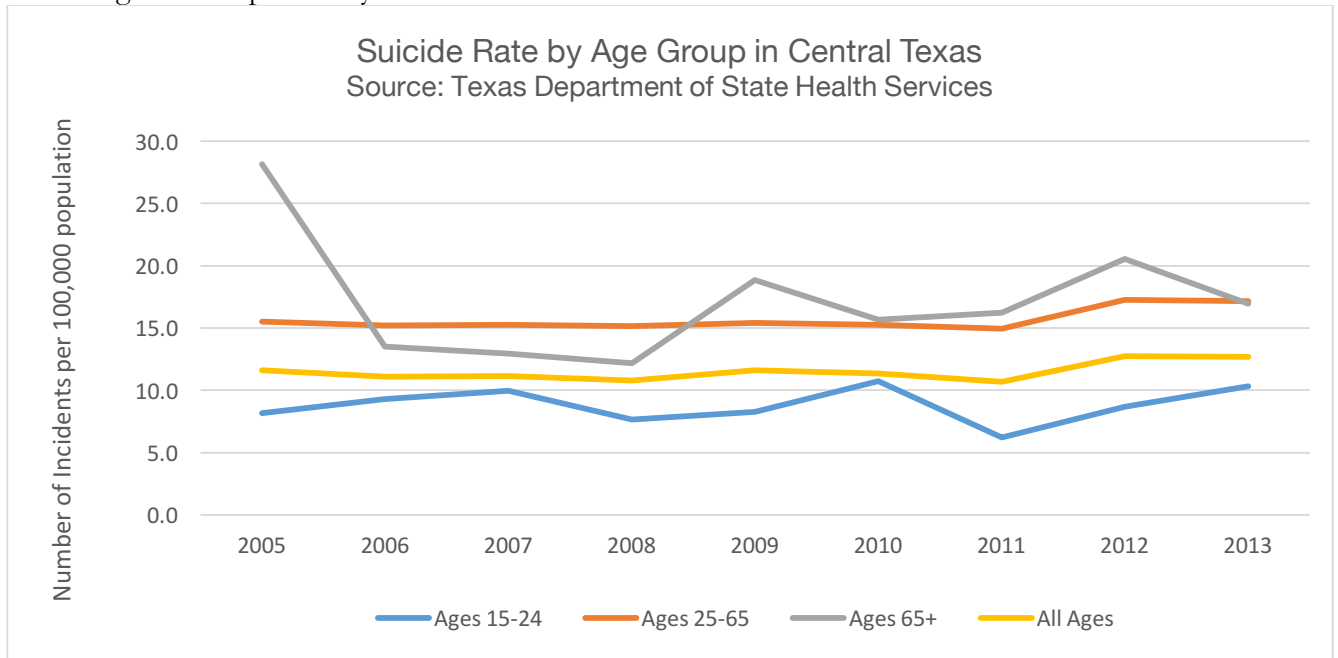


Suicide Rates

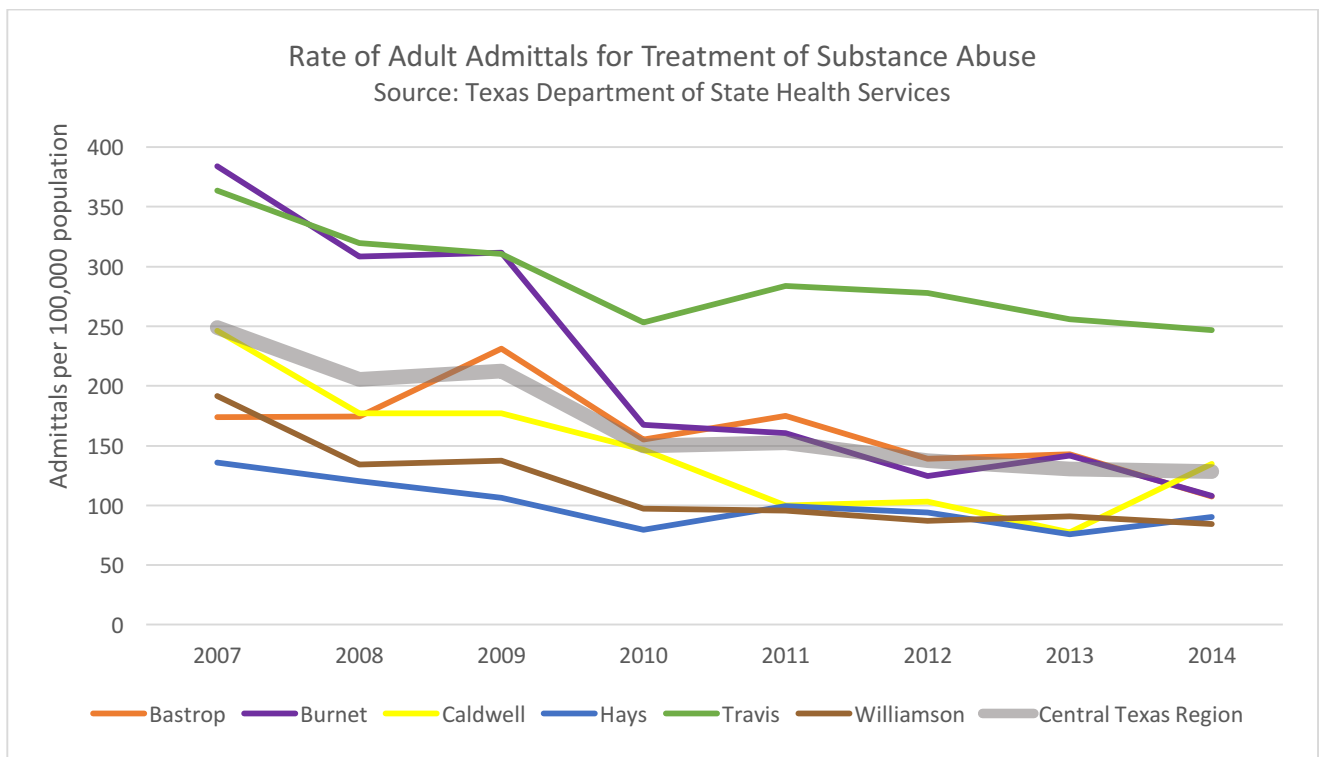
Suicide is a preventable cause of death but rates in Central Texas remain higher than the state average. Bastrop, Burnet, and Caldwell counties have the highest volatility and incidences of suicide per 100,000 people in the region. This correlates with an inadequate supply of mental health medical specialists in Bastrop, Burnet, and Caldwell counties. Travis County's suicide rate has remained relatively constant over time.



Residents 65 years and older have the highest incidence of suicide in Central Texas. Though suicide rates for young adults are the lowest among the age groups, it remains the most volatile with the rate increasing over the past few years.



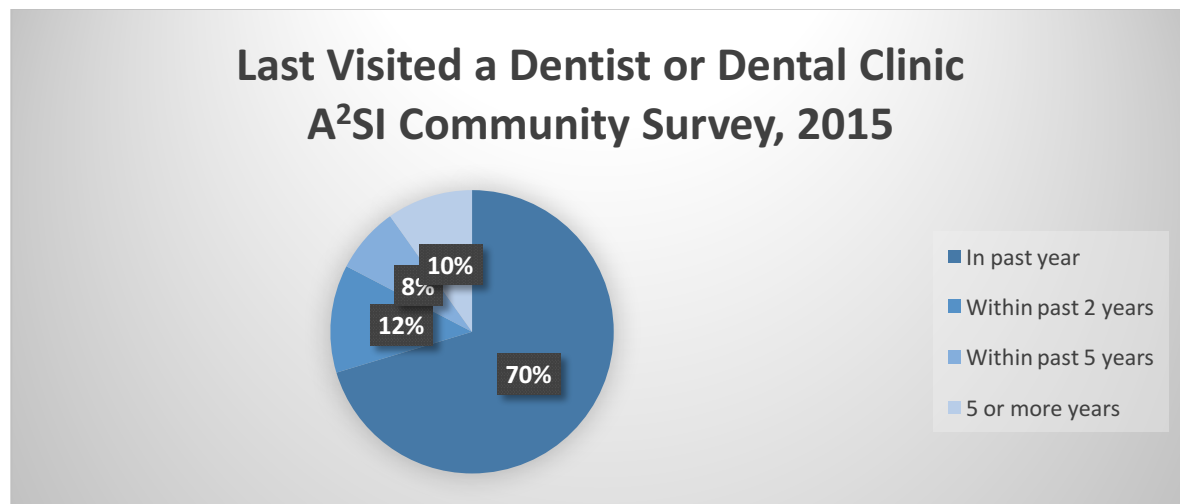
Adult admission for substance abuse treatment has declined overall in Central Texas over the past several years.



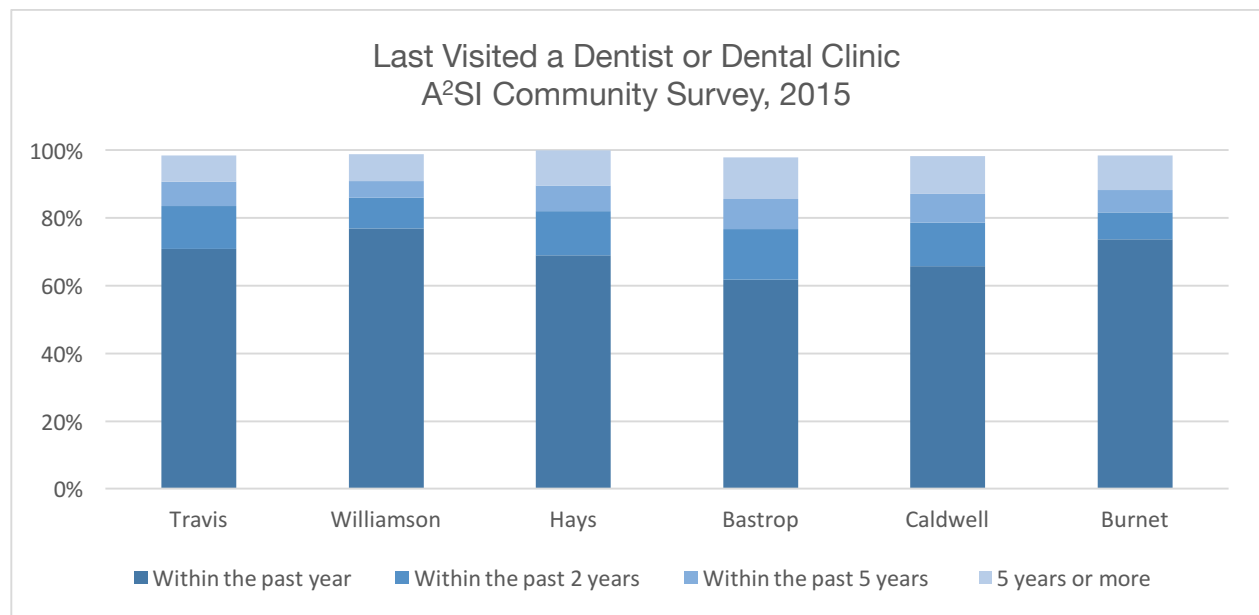
** Youth admittals are not calculated due to statistical instability.

Dental Health

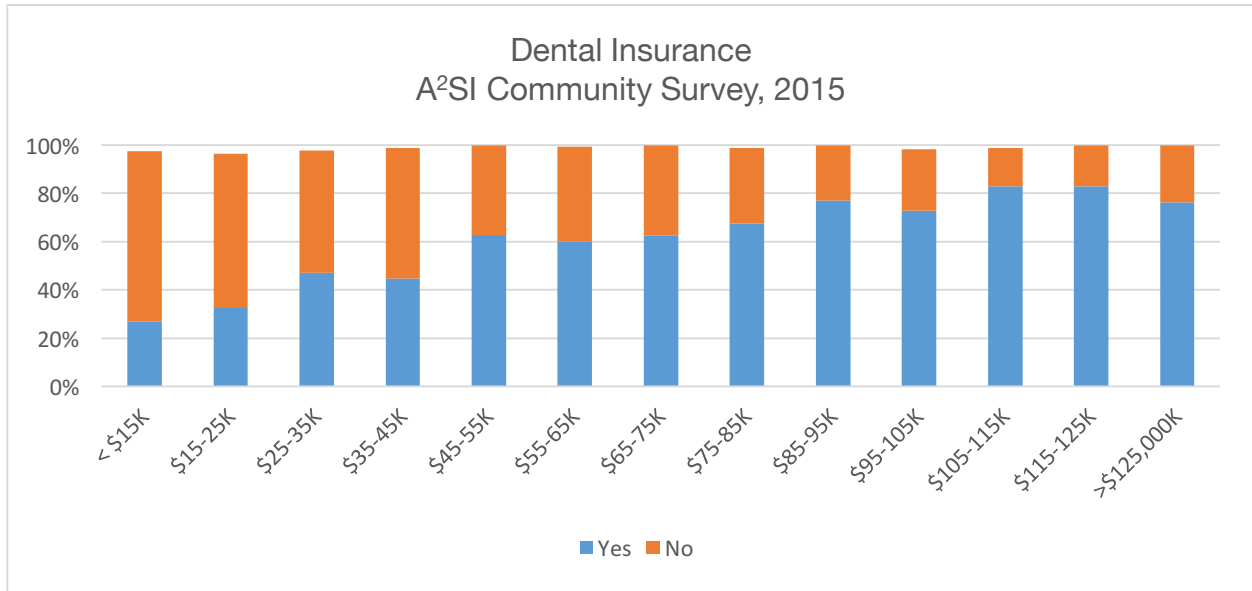
Oral diseases ranging from dental caries (cavities) to oral cancers cause pain and disability for thousands of Austin area residents. The impact of these diseases does not stop at the mouth and teeth. A growing body of evidence has linked oral health, particularly periodontal (gum) disease, to several chronic diseases, including diabetes, heart disease, and stroke. In pregnant women, poor oral health has also been associated with premature births and low birth weight. These conditions may be prevented in part with regular visits to the dentist. According to the A²SI Community Survey, in 2015 approximately 70% of residents reported going to the dentist in the past year. Eighteen percent, however, reported not going to the dentist in over two years.



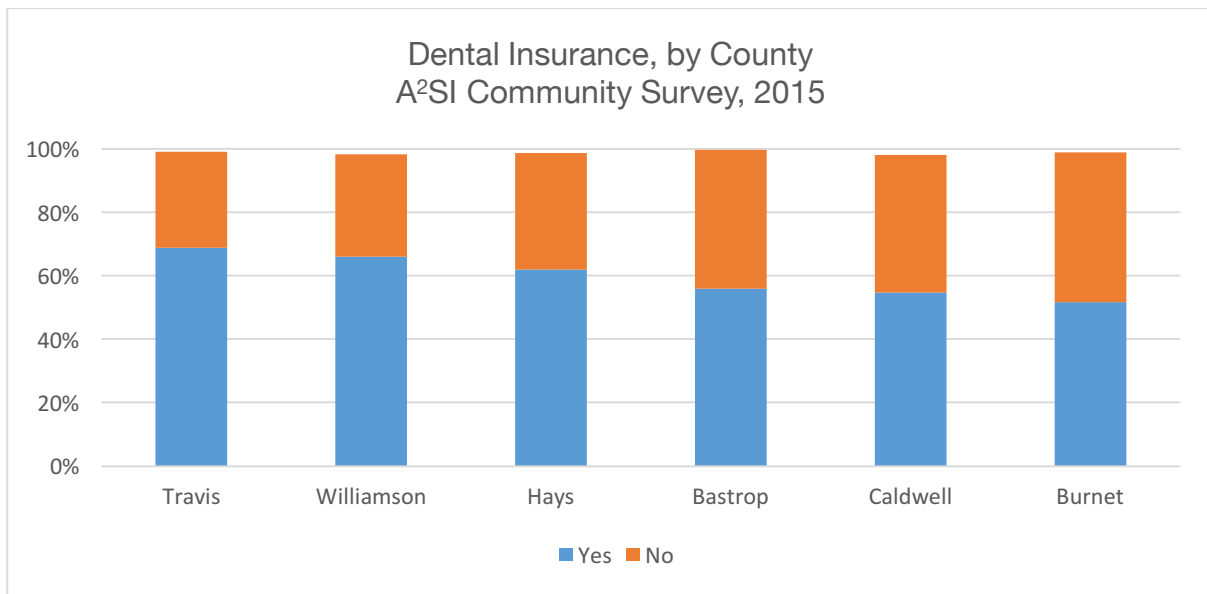
This was most pronounced in Bastrop and Caldwell counties, where 21% and 19% reported not visiting a dentist in the past two years, respectively.



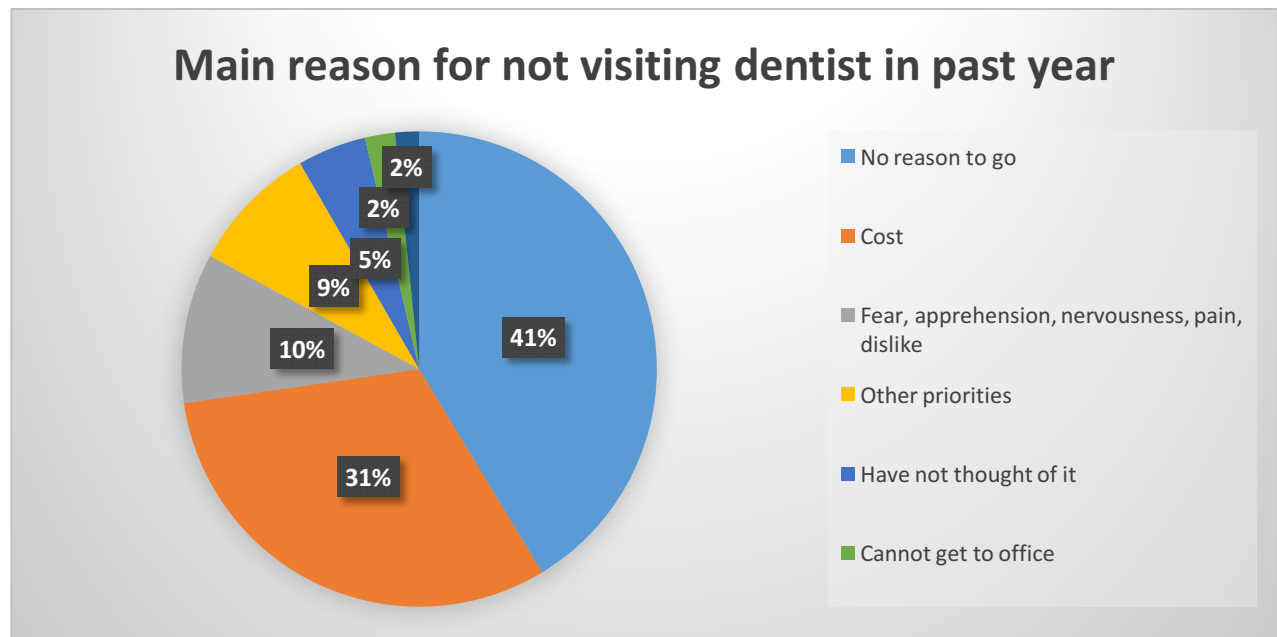
The ability to access oral health care is associated with gender, age, education level, income, race and ethnicity, access to medical insurance, and geographic location. Addressing these determinants is key in reducing health disparities and improving the health of all Austin area residents. Efforts are needed to overcome barriers to access to oral health care caused by geographic isolation, poverty, lack of communication skills. For example, the A²SI Community Survey data indicates that a significant portion of lower income respondents lack dental insurance. Approximately 60% of those reporting \$45,000K or less per year, and 71% of those under \$15,000, lack dental coverage.



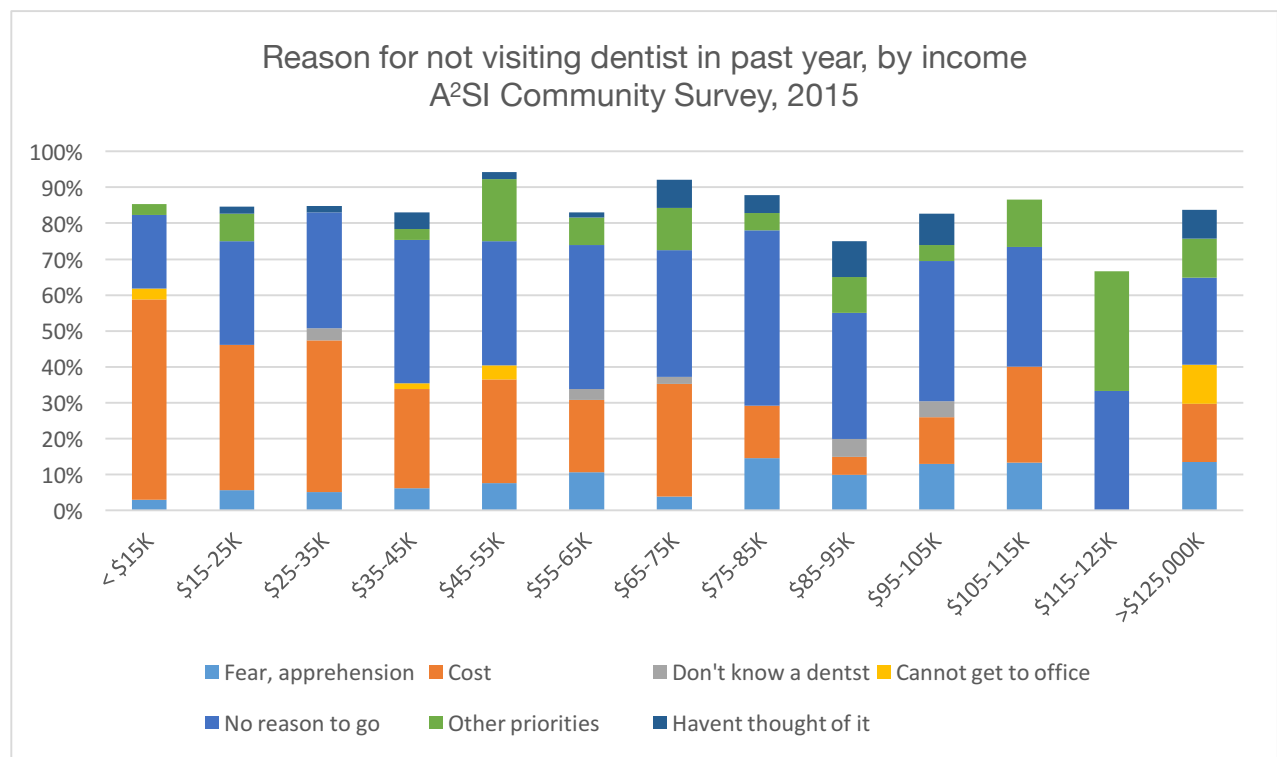
There is also geographical variation in the data, with Caldwell (43%), Bastrop (44%), and Burnet (47%) counties having more residents without dental coverage than the average of the Austin area as a whole.



For those that have not visited a dentist in the past year, the main reasons given for why not range from “no reason to go” (41%), “cost” (31%), to “fear, apprehension, nervousness, pain, and dislike” (10%).



Perhaps not surprisingly, those in lower income brackets referenced cost as the inhibiting factor more frequently, and those in higher income brackets reported “no reason to go.”



Summary and Conclusions

Promoting healthier communities is enhanced by data on the health status of the population and information on a range of factors that can influence health outcomes. The Health Section of the 2016 Austin Area Sustainability Indicators includes many important data points about the six county area of and around Austin. While a few of the trends have improved, and others have remained unchanged, the data indicate many disparities across the health domain based on race/ethnicity, geography, income, and other socio-demographic determinants. We hope this information helps assess the regional health status, identify disparities, promote a shared understanding of the factors that drive health outcomes, and catalyze multi-sector partnerships to collaboratively improve population health.

Appendix A: Glossary

Affordable Care Act – The Affordable Care Act is a long, complex piece of legislation that attempts to reform the healthcare system by providing more Americans with Affordable Quality Health Insurance and by curbing the growth in healthcare spending in the U.S. Reforms include new benefits, rights and protections, rules for Insurance Companies, taxes, tax breaks, funding, spending, the creation of committees, education, new job creation and more.

Coverage Gap – The insurance coverage gap includes adults without children living below 100%FPL and adults with children living between 18% and 100% FPL.

Federal Poverty Level – Federal Poverty Level (FPL) is a measure of income level issued annually by the Department of Health and Human Services. Federal poverty levels are used to determine your eligibility for certain programs and benefits.

Infant Mortality Rate - *Infant mortality rate* compares the number of *deaths* of *infants* under one year old in a given year per 1,000 live births in the same year. This *rate* is often used as an indicator of the level of health in a country.

Health Provider Shortage Area – A HPSA is a geographic area, population group, or health care facility that has been designated by the Federal government as having a shortage of health professionals. There are three categories of HPSAs: primary care (shortage of primary care clinicians), dental (shortage of oral health professionals), and mental health (shortage of mental health professionals). HPSAs are designated using several criteria, including population-to-clinician ratios. This ratio is usually 3,500 to 1 for primary care, 5,000 to 1 for dental health care, and 30,000 to 1 for mental health care.

Health Insurance – For reporting purposes, the Census Bureau broadly classifies health insurance coverage as private or public. Private health insurance is a plan provided through an employer or union, a plan purchased by an individual from a private company, or TRICARE or other military health care. Public coverage includes the federal programs Medicare, Medicaid, and VA Health Care (provided through the Department of Veterans Affairs); the Children's Health Insurance Program (CHIP); and local medical programs for indigents (this program is included only for the Pacific Islands). People who had no reported health coverage, or those whose only health coverage was Indian Health service (this program is included only in the American Community Survey), were considered uninsured.

Medicare – Medicare is the federal health insurance program for people who are 65 or older, certain younger people with disabilities, and people with End-Stage Renal Disease (permanent kidney failure requiring dialysis or a transplant, sometimes called ESRD).

Medicaid – Medicaid is a joint federal and state program that helps with medical costs for some people with limited income and resources.

Medically needy – Medicaid defined the medically needy as individuals that have medical expenses that significantly reduce their income. In Texas, the medically needy are only individuals with

disabilities and those who are 65 years and over that have medical expenses that reduce their income below the Medicaid eligibility level.

TANF – TANF stands for Temporary Assistance for Needy Families and is a program that provides cash assistance and supportive services to assist families with children under age 18, helping them achieve economic self-sufficiency.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Health	Health Access	Percentage of the Population 0-64 that are Uninsured in Austin Round-Round MSA	Texas Department of State Health Services	TX Department of State Health Services. Texas Health Facts Profiles 2006-2013. https://www.dshs.state.tx.us/chs/cfs/Texas-Health-Facts-Profiles.aspx . Accessed 29 Sept. 2015
Health	Health Access	Percentage of the Population 0-64 that are Uninsured in Central Texas by county	U.S. Census Bureau	U.S. Census Bureau. Small Area Health Insurance Estimates. http://www.census.gov/did/www/sahie/data/interactive/sahie . Accessed 6 Jan. 2016.
Health	Health Access	Uninsured Rate in Central Texas by county	U.S. Census Bureau	U.S. Census Bureau, American Community Survey, 1YR Estimates, B27015: Health Insurance Coverage Status and by Type. Accessed 29 Sept 2015.
Health	Health Access	2013 Uninsured Rate by Income Level in Central Texas by County	U.S. Census Bureau	U.S. Census Bureau. Small Area Health Insurance Estimates. http://www.census.gov/did/www/sahie/data/interactive/sahie . Accessed 6 Jan. 2016.
Health	Health Access	Overview of the Uninsured Population in Central Texas	U.S. Census Bureau	U.S. Census Bureau. American Community Survey 2010-2014 5 year estimate, S2701: Health Insurance Coverage. Accessed 6 Jan. 2016
Health	Health Access	Health Insurance Coverage in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2010-2014 5 year estimate, S2701: Health Insurance Coverage. Accessed 6 Jan 2016

Health	Health Access	Demographics of Medicaid Enrollees in Central Texas	Texas Health and Human Services Commission	Texas Health and Human Services Commission, Medicaid Enrollment, http://www.hhsc.state.tx.us/research/MedicaidEnrollment/MedicaidEnrollment.asp . Accessed 26 Sept 2015.
Health	Health Access	Medicaid Enrollment in Central Texas	Texas Health and Human Services Commission; Texas State Demographer	Texas Health and Human Services Commission, August enrollment, http://www.hhsc.state.tx.us/research/MedicaidEnrollment/MedicaidEnrollment.asp . Accessed 26 Sept 2015; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Health	Health Access	Medicare Beneficiaries Enrolled in Part A and/or Part B	Center for Medicare and Medicaid Services	CMS Deominator File, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareEnrpts/index.html
Health	Health Access	2013 Characteristics of Enrollees of Medicare Program Part A & Part B	Center for Medicare and Medicaid Services	CMS Public Use File, State/County Report All Beneficiaries, https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV_PUF.html .
Health	Physical Health	Ratio of Primary Care Physicians in Central Texas by county	Texas Department of State Health Services	Texas Department of State Health Services, Center for Health Statistics, Health Professions Resource Center, https://www.dshs.state.tx.us/chs/hprc/PC-lnk.shtm . Accessed: 30 Sept 2015
Health	Physical Health	Percentage of Births to Mothers 17 years and younger	Texas Department of State Health Services	Texas Department of State Health Services, Vital Statistics Annual Reports Table 11: Births to Mothers 17 years of age and younger by county of residence, http://www.dshs.state.tx.us/chs/vstat/annrpts.shtm . Accessed 1 Oct 2015
Health	Physical Health	Infant Mortality Rate in Central Texas	Texas Department of State Health Services	Texas Department of State Health Services, Texas Health Data: Deaths of Texas Residents, 1999-2013, http://soupfin.tdh.state.tx.us/death10.htm . Accessed: 1 Oct 2015;

Health	Physical Health	Current Percentage of Smokers	Texas Department of State Health Services	Texas Department of State Health Services. Center for Health Statistics (CHS). Texas Behavioral Risk Factor Surveillance System Survey Data. Austin, Texas: DSHS, 2003-2013. Accessed: 2 Oct 2015
Health	Physical Health	Leading Causes of Death in Central Texas	Texas Department of State Health Services	Texas Department of State Health Services, Texas Health Data: Deaths of Texas Residents, 1999-2013, http://soupfin.tdh.state.tx.us/death10.htm . Accessed: 1 Oct 2015
Health	Mental Health	Ratio of Psychiatrists in Central Texas	Texas Department of State Health Services	Texas Department of State Health Services, Center for Health Statistics, Health Professions Resource Center http://www.dshs.state.tx.us/chs/hprc/PSY-lnk.shtm Accessed: 5 Oct 2015
Health	Mental Health	Suicide Rate in Central Texas by county	Texas Department of State Health Services	Texas Department of State Health Services, Texas Health Data: Death of Texas Residents, http://soupfin.tdh.state.tx.us/death10.htm . Accessed: 1 Oct 2015
Health	Mental Health	Suicide Rate by Age Group in Central Texas	Texas Department of State Health Services; Texas State Demographer	Texas Department of State Health Services, Texas Health Data: Death of Texas Residents, http://soupfin.tdh.state.tx.us/death10.htm . Accessed: 1 Oct 2015; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016
Health	Mental Health	Rate of Adult Admittals for Treatment of Substance Abuse	Texas Department of State Health Services; Texas State Demographer	Texas Department of State Health Services, Mental Health and Substance Abuse Division, CMBHS of the service admissions of DSHS-funded and NorthSTAR clients by age group and client county. Personal communication with Kathy Smith of DSHS, 7 Oct. 2015.; Texas State Demographer, Texas State Data Center, http://osd.texas.gov/Data/TPEPP/Estimates/ . Accessed 14 Jan 2016



Land Use and Mobility

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Austin Area Sustainability Indicators (2016) – Land Use and Mobility

Contents

Austin Area Sustainability Indicators (2016) – Land Use and Mobility	1
Land Use and Mobility	2
Density of New Development.....	2
Building Permits by Type and Jurisdiction	2
Density of Residential Housing.....	2
Urban Sprawl.....	4
Rural Land.....	5
Market Value of Agricultural Land	5
Land Use	5
Value by Land Type	6
Public Open Space.....	7
Open Space.....	7
Economic Impact of Texas State Parks	9
Commuting	10
Commuting Modes.....	10
Commute Time	11
Commuter Stress Index	13
Public Transit	13
Capital Metro Bus Ridership	13
Congestion	15
Daily Vehicle Miles Traveled	15
Travel Time Index	16
Cost of Congestion.....	17
Summary and Conclusion.....	18
Appendix A: Glossary	19
Appendix B: Bibliography	20

Land Use and Mobility

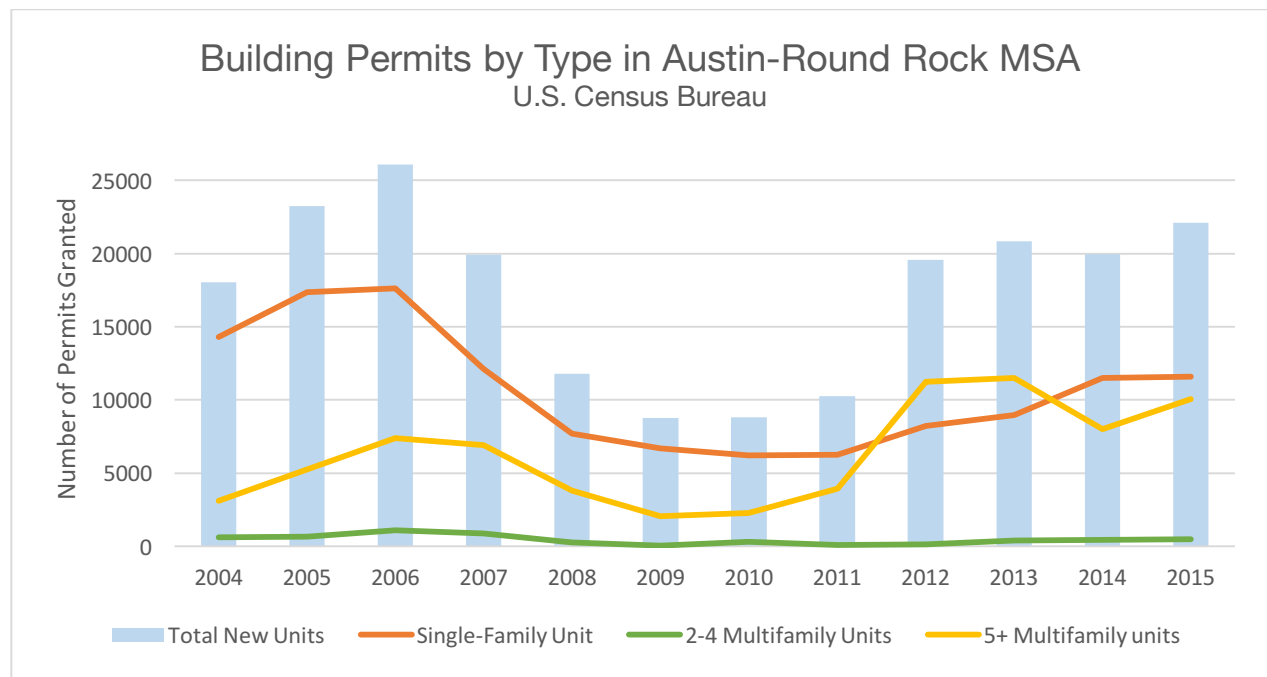
Land use is the term used to describe the human use of land. It represents the economic and cultural activities (e.g., agricultural, residential, industrial, mining, and recreational uses) that are practiced at a place. Land use changes occur constantly and at many scales, and can have specific and cumulative effects on air and water quality, watershed function, generation of waste, extent and quality of wildlife habitat, climate, and human health.

Density of New Development

Density has many definitions and to be done successfully must be designed to optimize many location factors such as schools, mobility networks, public safety, and patterns of health, as well as economic costs and benefits of infrastructure and tax base.

Building Permits by Type and Jurisdiction

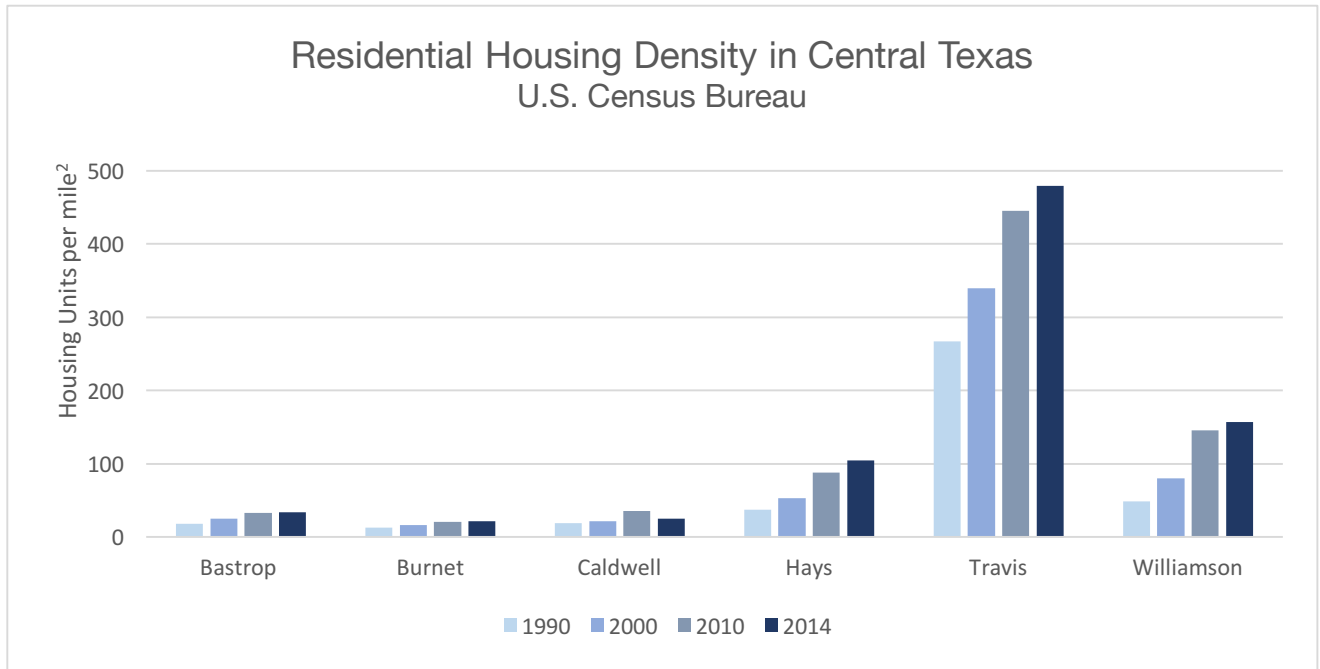
Single-family residential permits and multi-family residential units experienced a steady decline from 2006 to 2011, corresponding with the Recession of 2008. The Austin-Round Rock MSA housing market began to recover in 2011, and the region has seen a steady increase in building permits of single-family units as well as buildings with 5 or more multi-family units. Despite the growing number of multi-family buildings, the majority of Austin-Round Rock MSA’s housing stock is still made up of single-family homes.



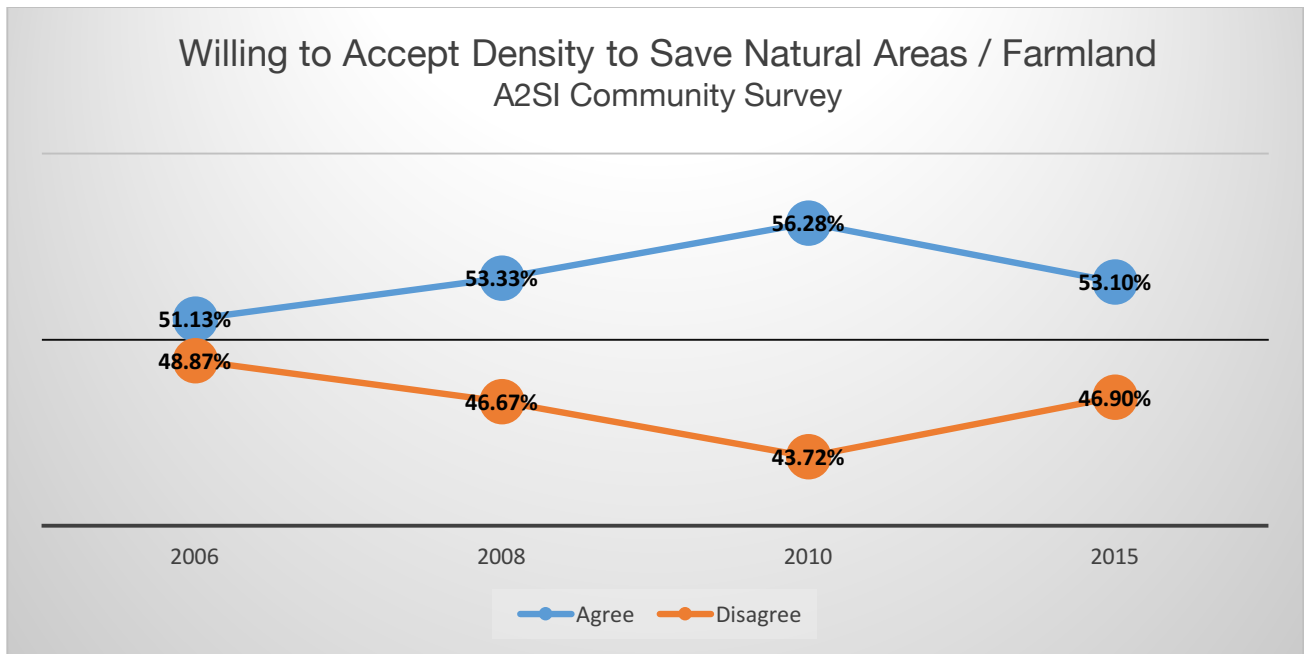
Density of Residential Housing

Residential housing density remained flat in Bastrop and Burnet counties, and declined in Caldwell County, from 2010 to 2014. During this same period of time, Hays, Travis, and Williamson counties saw an incremental increase in residential density. Travis County has the most residential units per land area than any other county in the Central Texas region, with 479.7 housing units per square

mile.

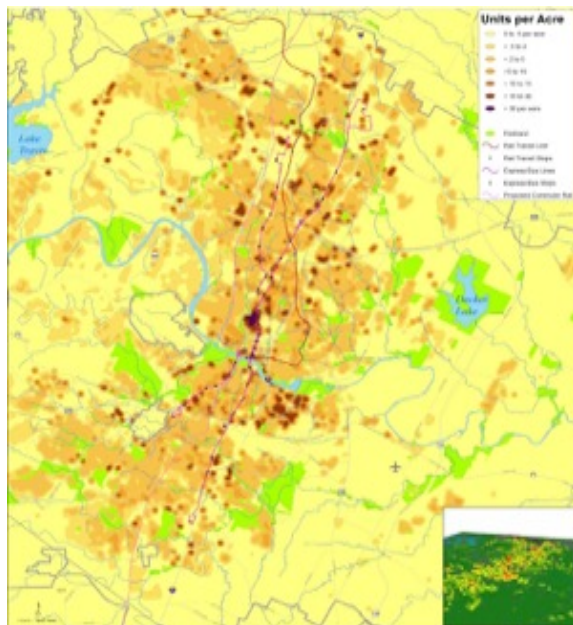


Generally, 53% of Austin area residents would be willing to see more dense neighborhoods in exchange for preserving farmland and natural areas. That is down, however, from 2010 where 56% of survey respondents agreed. Those residents that live in “rural changing to suburban” feel most strongly about this, with 57% of respondents agreeing in 2015. Rural residents reported the highest percentage unwilling to accept density in order to protect natural and farming land. Support for this is highest in Travis and Williamson counties.

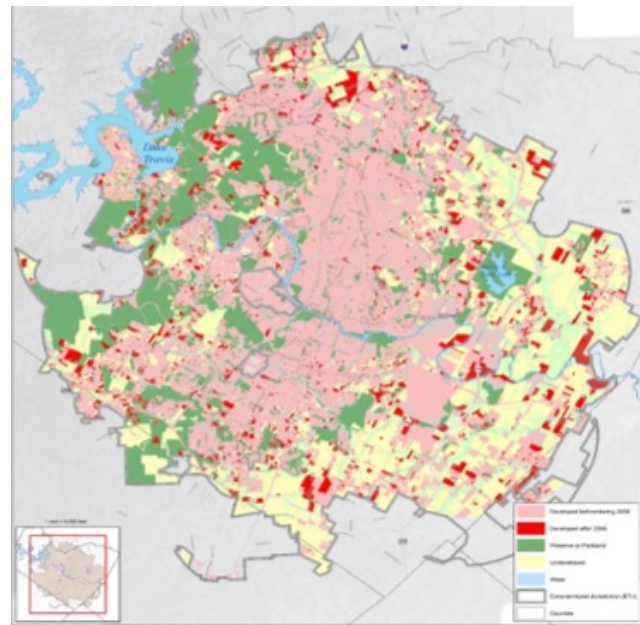


Urban Sprawl

The majority of housing units are located outside of the core urban centers. In general, urban sprawl is characterized by the reliance on automobiles and an increased impact on the natural environment.



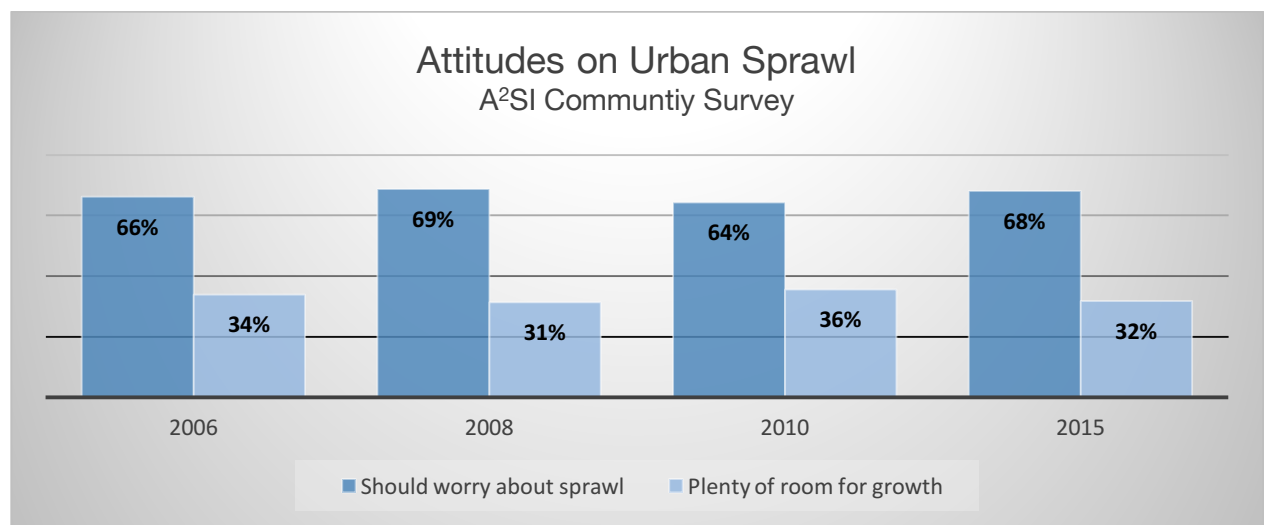
Source: Adapted from the City of Austin Extra-Territorial Jurisdiction, Planning and Development Review Department.



Developed Land Change 2006 to 2012
CITY OF AUSTIN
EXTRA-TERRITORIAL JURISDICTION

The Austin-Round Rock MSA is rapidly growing in low-density, sprawl development. Since 2006, farmland, open space, and natural areas have been developed, depicted in dark red spots on the map above.

According to the A²SI Community Survey, perceptions about sprawl versus the attitude that there is plenty of room to grow have remained relatively consistent since 2006. Between 65 to 70% believe that we should worry about sprawl, whereas between 30 to 35% believe that we have plenty of room to grow.

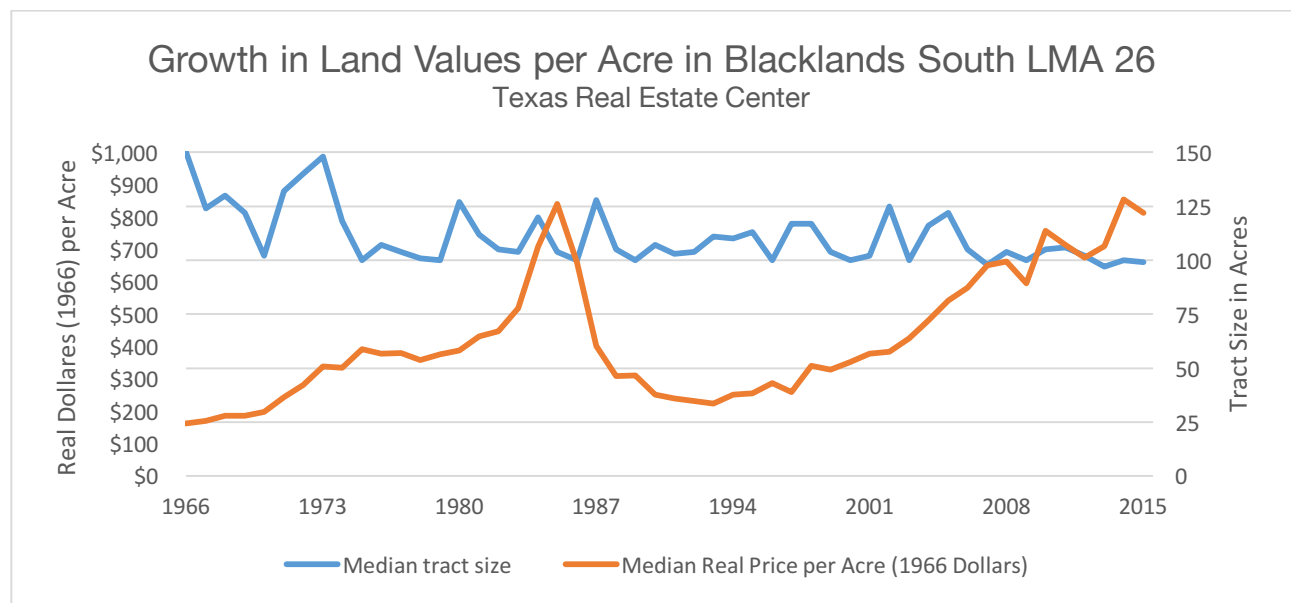


Rural Land

Rural lands, which are predominantly privately owned, serve many purposes in the Austin region – for agricultural production, storm water retention, aquifer recharge, cultural heritage, tourism, recreation, open space and wildlife habitat. These contributions of land are valued as ecosystem services or green infrastructure, and are vital to the sustainability of a region.

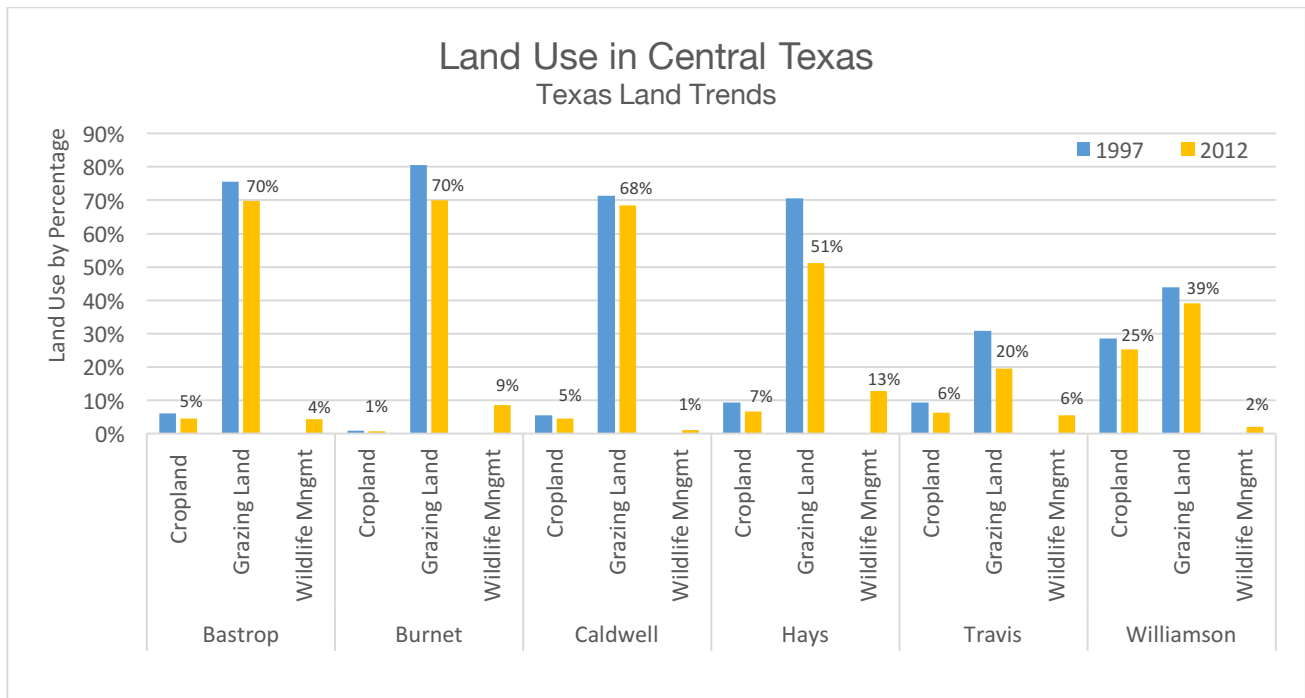
Market Value of Agricultural Land

Land values across Central Texas increased steadily from 1997 to 2008. The recession in 2008 caused land values to become more volatile. Land values peaked in 2014 at \$854/acre. This was followed by a slight decrease in 2015, when one acre cost \$814, which was a 50% increase from a decade earlier when one acre cost \$543. The increase in the dollar value per acre of land over time demonstrates the pressure to develop agricultural lands in urbanized regions into more “market responsive” land uses, such as residential subdivisions.



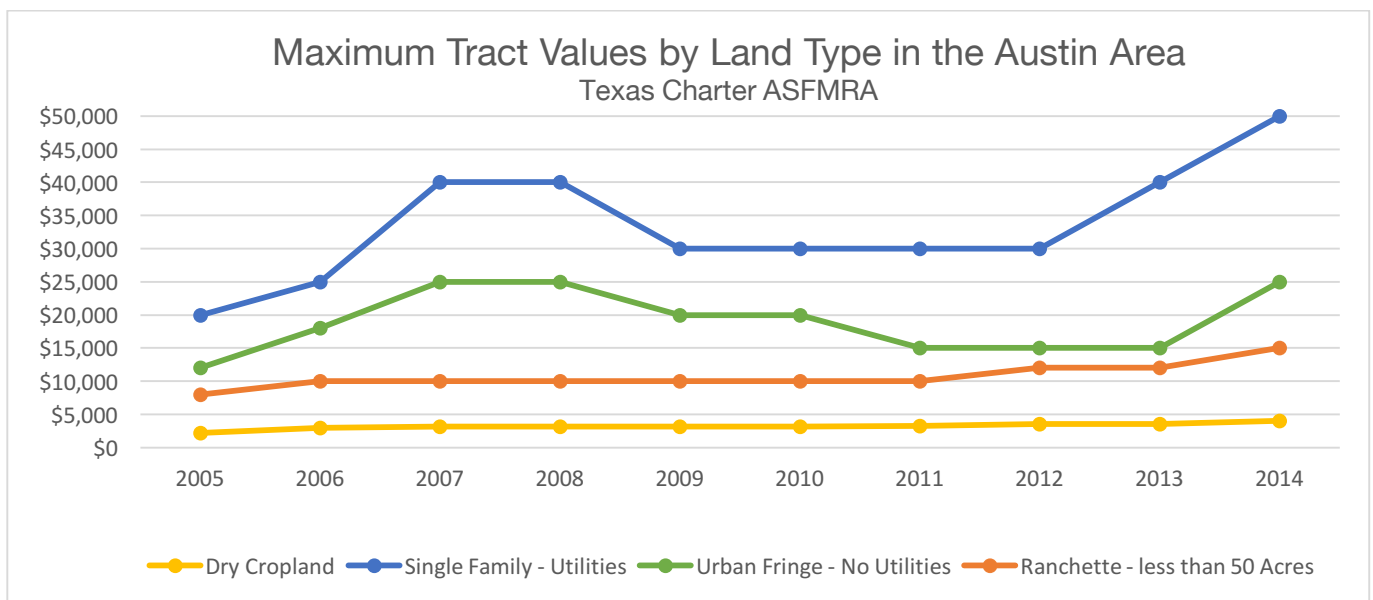
Land Use

Though grazing land acreage has steadily declined in all counties since 1997, it still remains the number one land use in the rural Austin area with 51% land dedication. Cropland has also decreased in land acreage, comprising approximately 8.8% of land use in 2012. Land dedicated to wildlife management made up 5.7%, an increase of nearly 6,500% since 1997 when wildlife management only comprised 0.1% of all land use.



Value by Land Type

The Austin Area has experienced a sharp increase in the value of single family areas since 2012, with utilities reflecting the high demand for home sites and strong urban expansion. Beginning in the latter part of 2013, land on the urban fringe with no utilities also dramatically increased. Upward residential growth in the Austin-Round Rock MSA will continue to put upward pressure on prices in both of these land categories. Sales prices for dry cropland has been stable throughout the years, whereas ranchettes under 50 acres have seen modestly higher sales prices since 2011.



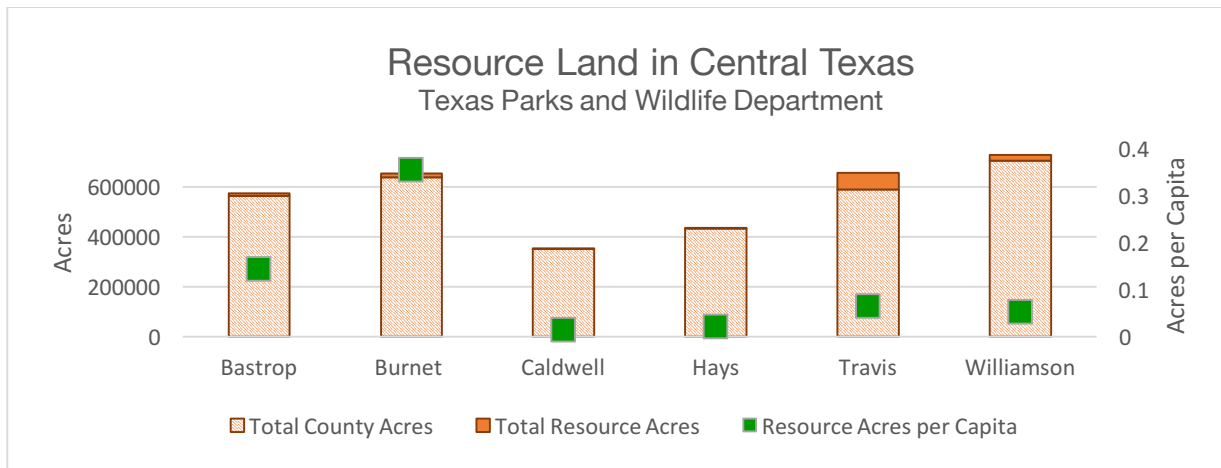
*Texas Chapter ASFMRA Austin Area definition includes Bastrop, Blanco, Burnet, Caldwell, Hays, Lee, Milan, Travis, and Williamson Counties.

Public Open Space

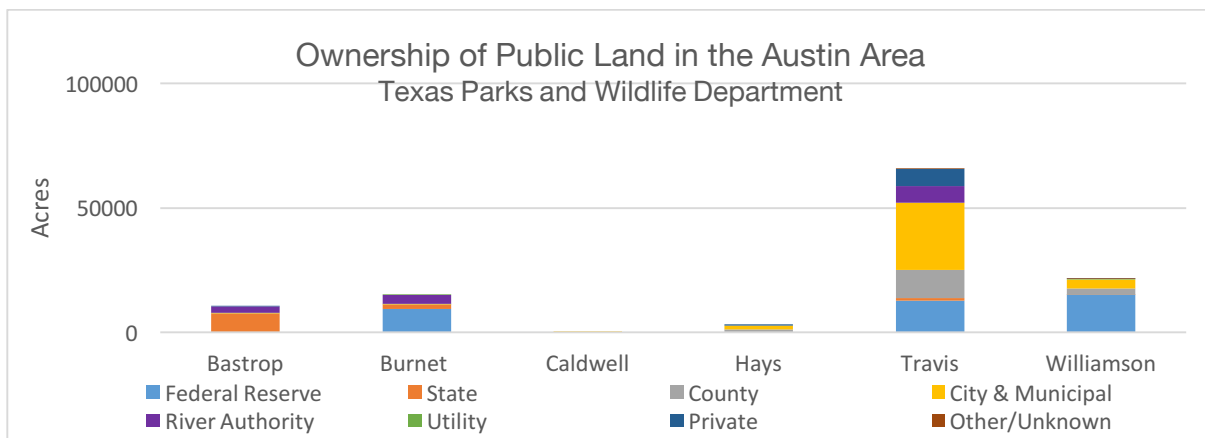
The planning and construction of parks and other public open spaces is known to be a crucial factor in maintaining societal and personal health as well as contributing to the quality of life and economic development of a region. Ensuring an adequate, if not equal, distribution of public open spaces is often difficult. Approximately 63% of Austin area residents report living within walking distance to a neighborhood park or public outdoor space.

Open Space

According to the most current Land Inventory by Texas Parks and Wildlife published in 2012, Caldwell and Hays counties have less than 1% of all county acres dedicated to public open space and parks. Though Travis County has the most acres dedicated to open space and recreation in the region (10%), due to its booming population the public open space per capita is limited. Burnet County has the most public open space per capita, attributable to the Balcones Canyonlands. Bastrop County also has considerable open space per capita, attributable to Bastrop and Buescher State Parks.

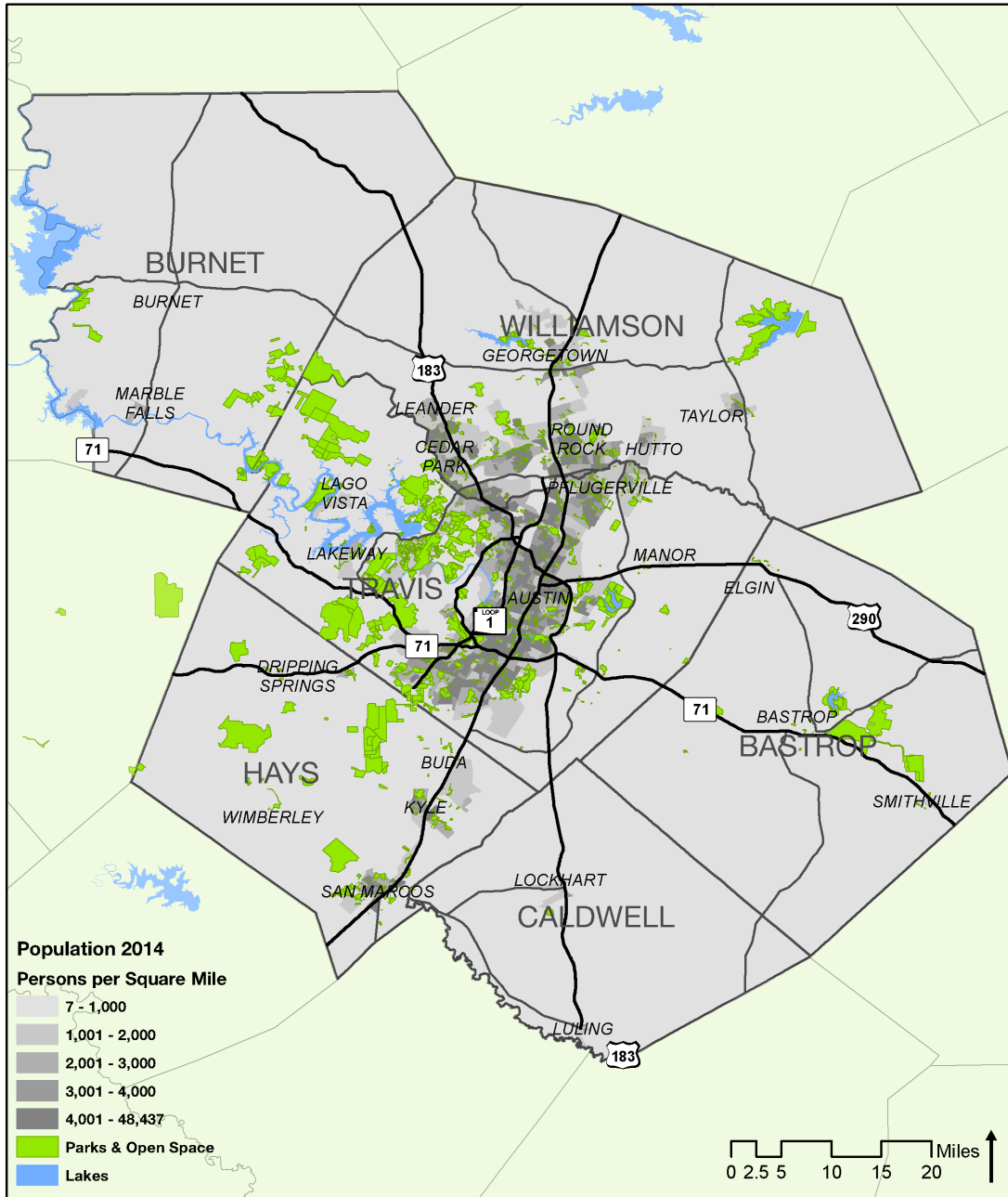


The majority of resource lands in Central Texas are owned by the Federal Government (31.7%), followed by City and Municipal Governments (27.9%), County Government (12.85%), the local River Authority (11.1%), the State of Texas (9%) and Private landowners (6.5%).



The map below displays dedicated open space and parkland and its spatial relationship with resident distribution in the Austin area. The map highlights that public open space is concentrated along the western part of the region and is not evenly distributed throughout the counties, leaving some populated areas underserved.

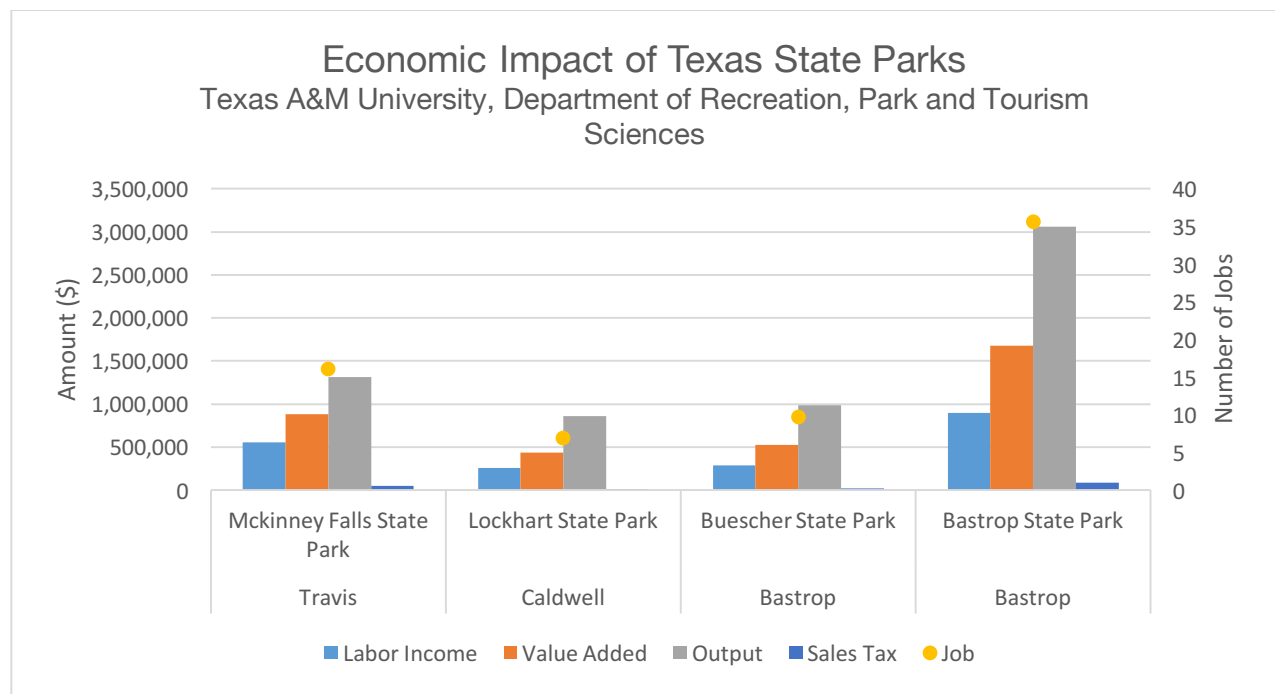
2014 Open Space (with Population Density)



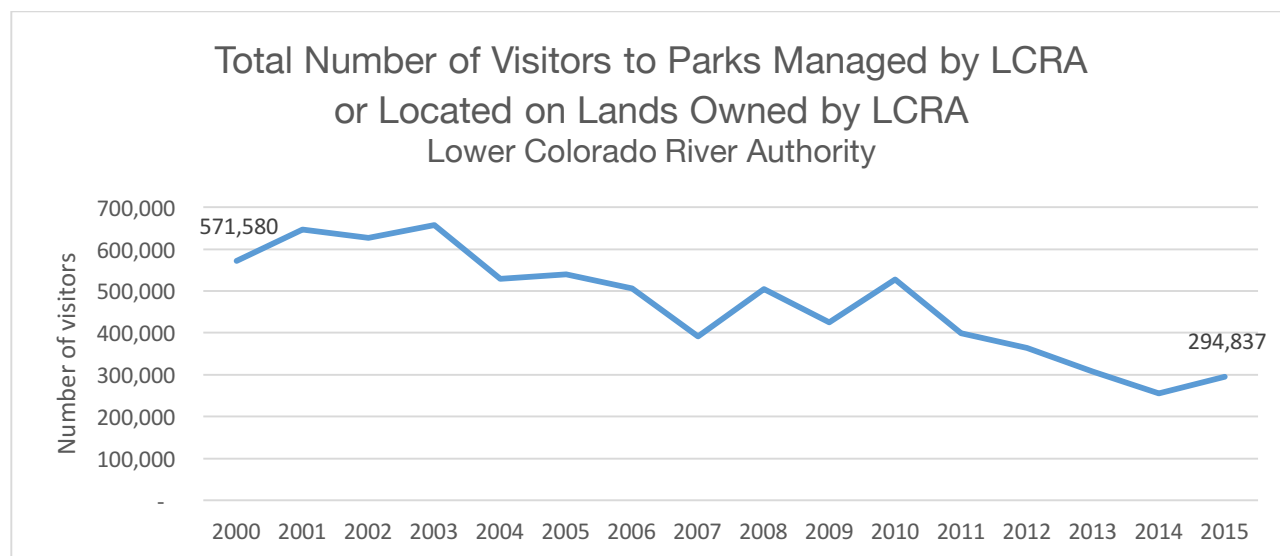
Data Source: Capital Area Council of Governments

Economic Impact of Texas State Parks

A study commissioned by the Texas Parks and Wildlife Foundation estimates the economic impact of visitors to Texas State Parks on the host counties. Economic impact of visitors to Texas State Parks on a host county is measured by the impact of visitation on sales transactions, household income and employment. The operating budget provided by Texas Parks & Wildlife Department also adds to the positive economic impact of the park on local economy as these are new dollars coming into the local economy. The study, however, captures the financial impact while the presence of Texas State Parks has broader economic benefits such as air cleansing, groundwater storage, flood control, impact on business relocation decisions, etc. The chart below provides an estimate of the economic impact of the four state parks in the Central Texas region on Labor Income, Value Added, Outputs, Sales Tax and the number of jobs in the host county. Similar studies were done in the years 2002, 2004 and 2006; however, the change in methodology does not allow us to track of the economic impact over the years.



The greater the number of visitors to a park, the greater will be the expenditures associated with the trips to the park and the greater the economic impact of the park on the host county. The number of visitors to parks managed by the Lower Colorado Development Authority or parks located on lands owned by the Lower Colorado Development Authority and managed by Travis County has declined substantially, by 48.4% from 2000 to year 2015. This decline in visitation reduces the economic benefits of the parks to the residents of the host counties.



Commuting

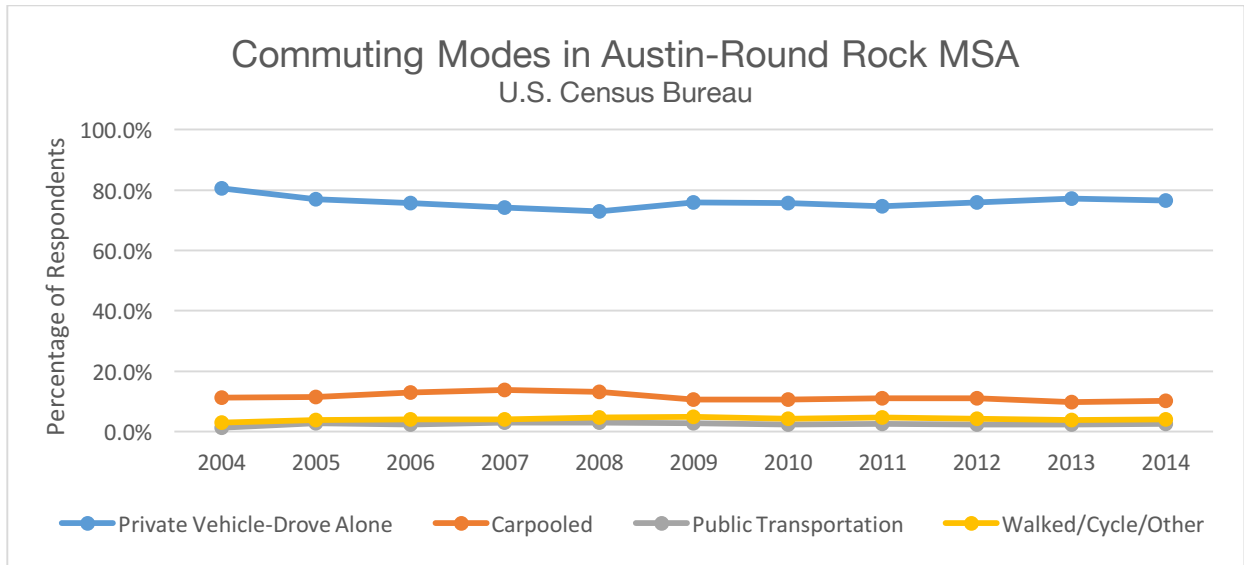
Many regions are diversifying their transportation networks by improving transit services and coordinating investment with other infrastructure such as emerging centers, water supply, open space areas, and schools. A shift in perceptions about mobility needs is driving efforts to bring housing and jobs closer together to mitigate long commutes.

Research suggests that longer commutes have negative impacts on both mental and physical health. Long commutes may decrease overall sense of wellbeing in individuals. Studies indicate that long commute times are strongly affected by conditions of sprawl, as greater sprawl is associated with increased costs to the traveler. Furthermore, a tradeoff often exists between commute time and cost of housing. Many individuals may choose to live further away from their place of work due to lower housing costs, while, conversely, some may opt for higher cost urban housing in order to avoid stressful commutes and lengthy travel times. A shift in perceptions about mobility needs is driving efforts to bring housing and jobs closer together to mitigate long commutes.

Commuting Modes

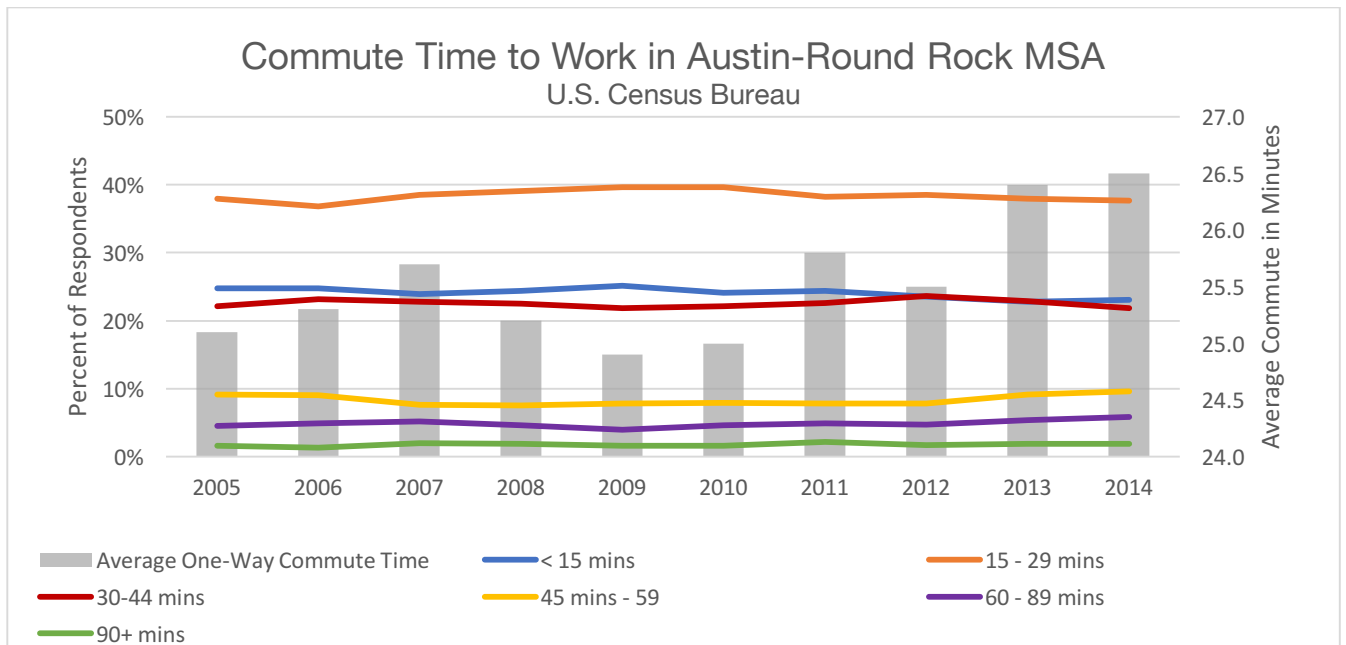
People have remained consistent in their method of commuting to work over the past 10 years. In 2014, over three-quarter (76%) of people in the Austin-Round Rock MSA still preferred to drive alone. With only 2.5% of respondents reporting having used public transportation to commute to work in 2014, it ranked the lowest among methods surveyed. In 2014, 3.9% of people walked or cycled to work, while 10.1% carpooled.

Data from the A²SI Community Survey suggests this trend is getting worse, rather than better. In 2008 84% of respondents reported typically driving alone. In 2015, 90% of respondents reported typically driving along.

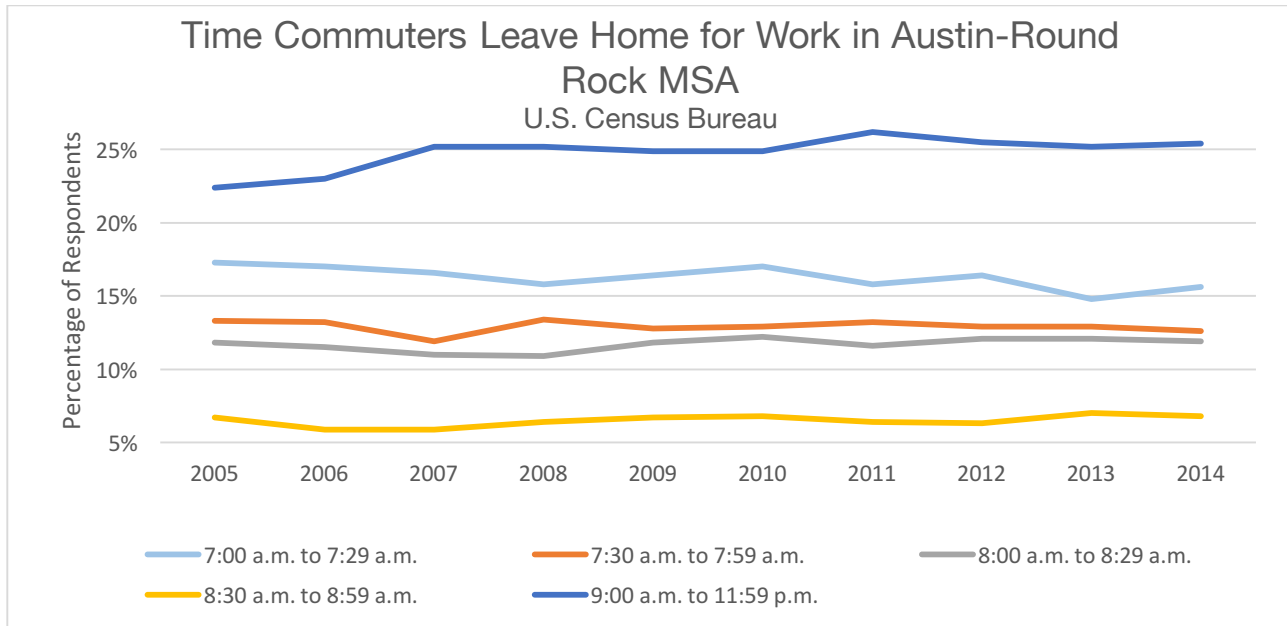


Commute Time

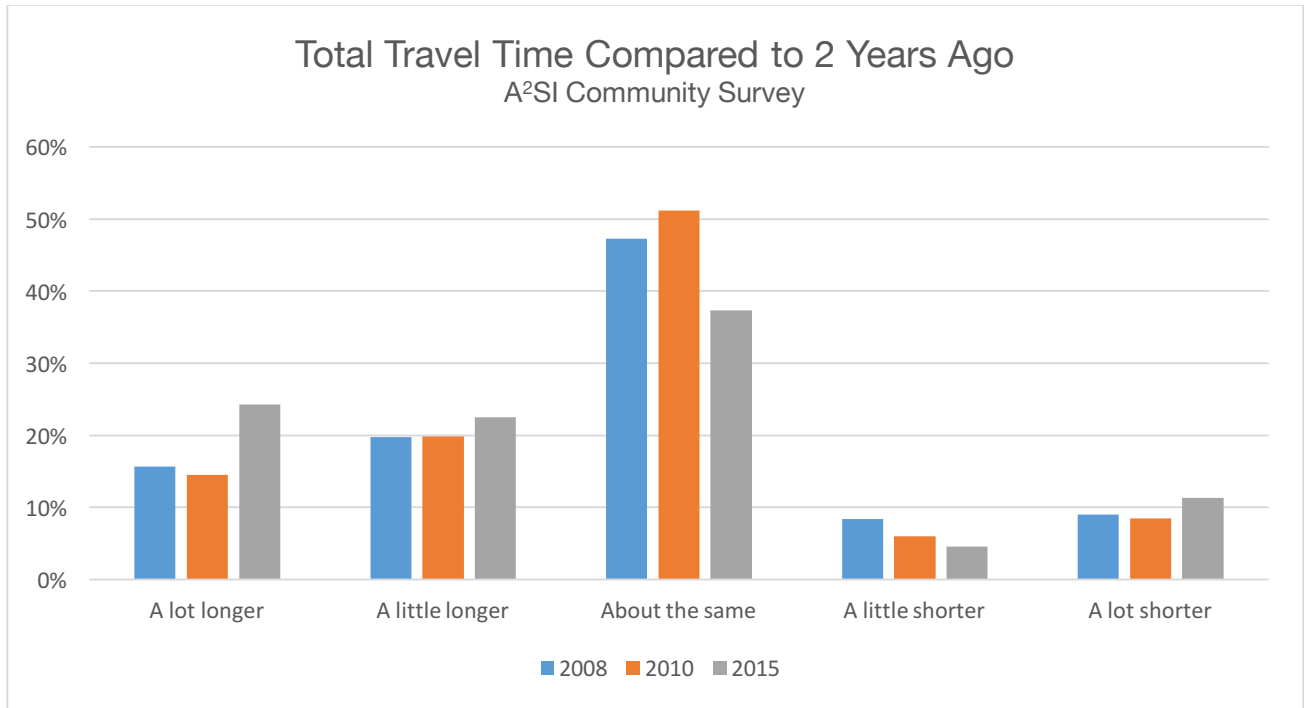
Sixty percent of people that work away from home reported having a commute time of 30 minutes or less, regardless of their method of transportation. The greatest percentage gains from 2005 to 2014 were seen in workers commuting between 60 and 89 minutes to their workplace (+1.4%). The average commute time in the Austin-Round Rock MSA increased to 26.5 minutes in 2014.



The reasonable commute time of fewer than 30 minutes for the majority of people that work away from home could be attributed, in part, to the time of day people choose to leave home for work. More people are opting to leave home outside of the traditional 7:00 to 8:00am rush hour. In 2014, 25% of commuters reported leaving their home for work after 9:00am.

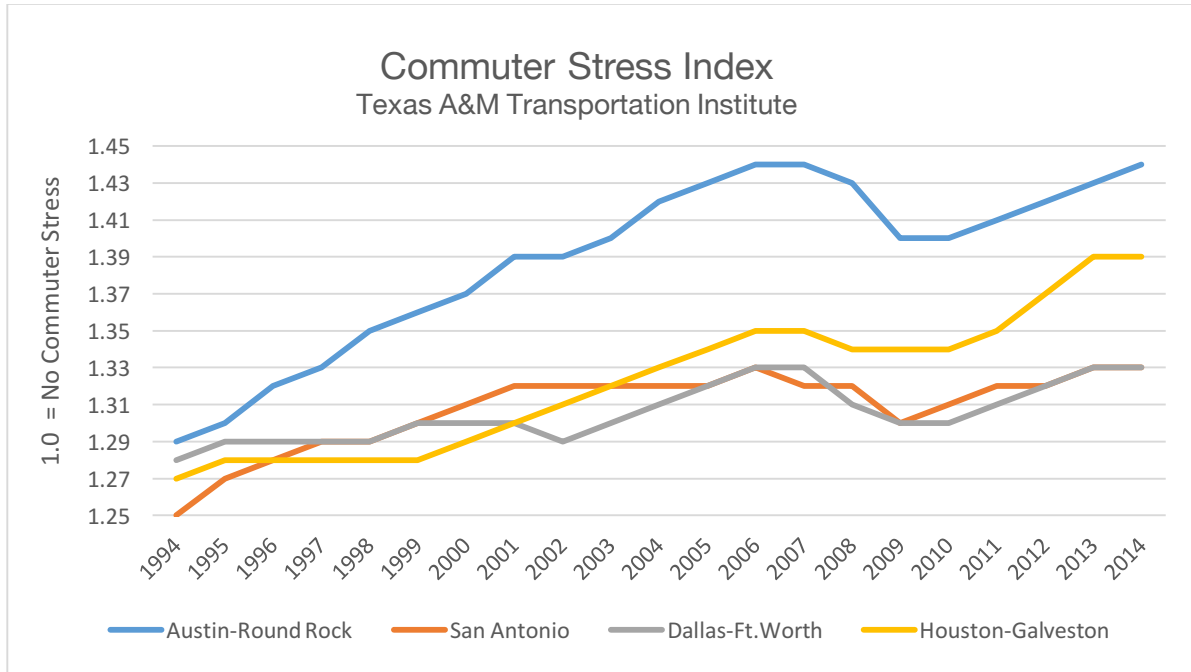


If actual commute times remain consistent, the perception of those commutes being longer is increasing. In 2015, 24% of A²SI Community Survey respondents report that total travel time is “a lot longer” than it was two years ago. This is up from 15% who reported that in 2010. The percentage of respondents that report “it’s about the same” declined from 51% to 37% in the same time period.



Commuter Stress Index

The Commuter Stress Index (CSI) measures the travel in peak directions during peak periods and is indicative of the work trip experienced by each commuter on a daily basis. Since 1994, the Austin-Round Rock MSA has had the highest CSI compared to other large urban centers in Texas.

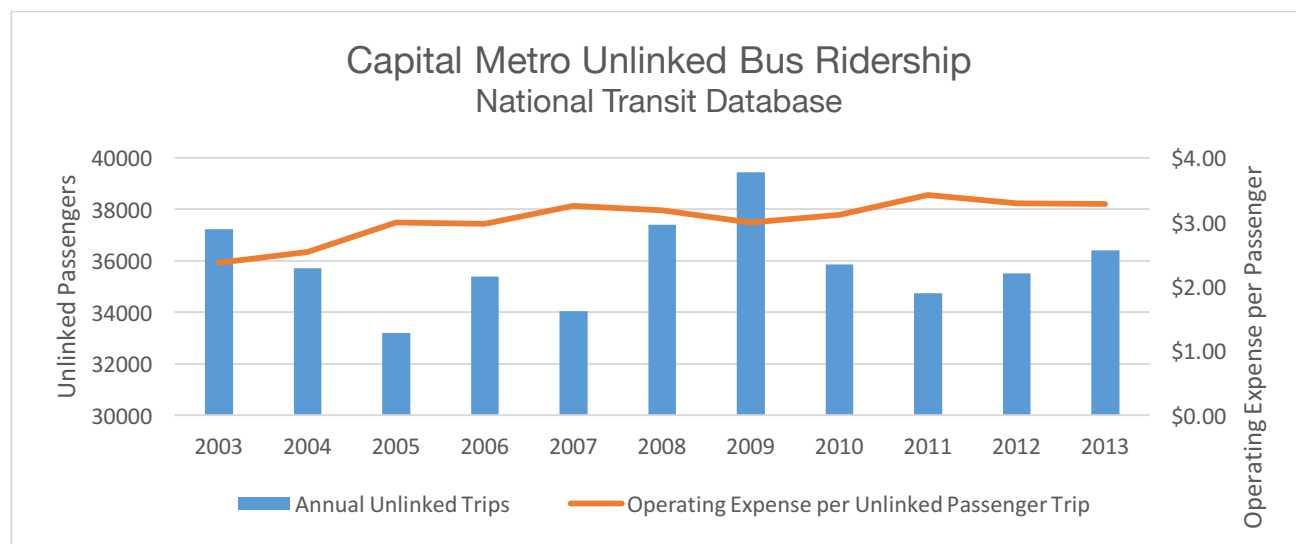


Public Transit

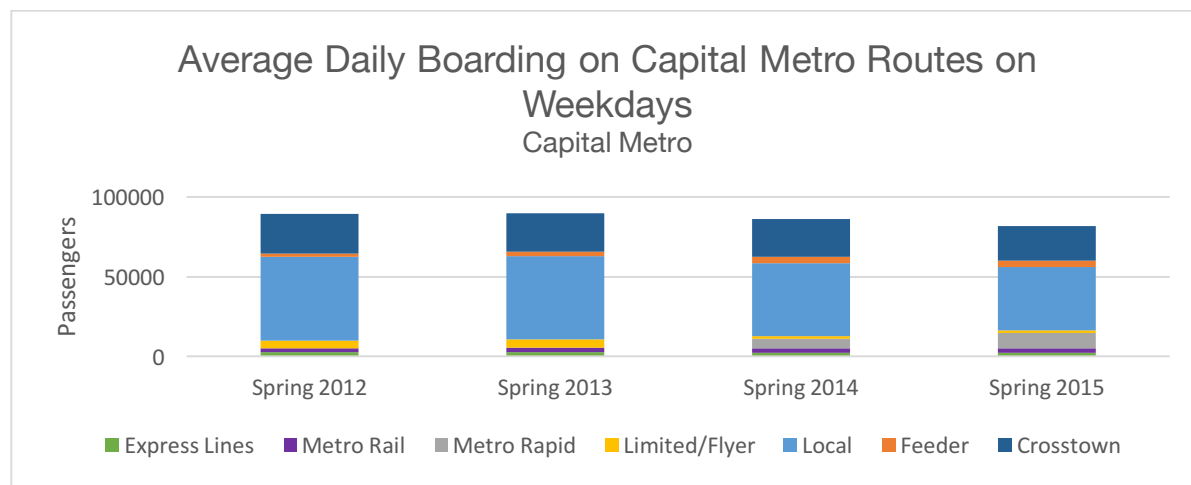
Public transit provides a myriad of benefits to users and the environment. There is a great deal of information on the positive economic and environmental impact of an efficient public transit system in a metropolitan area. Not only is this form of transportation more economical than vehicular travel, but it creates a significantly smaller carbon footprint and increases social interaction. Studies have shown that there is a correlation with having easy access to your community through light rail to overall quality of life and life satisfaction.

Capital Metro Bus Ridership

Capital Metro bus ridership of unlinked passengers reached its peak in 2009, then decreased dramatically in 2010. In 2012, unlinked ridership began recovering, and in 2013 over 36,000 unlinked passengers used the public bus service. With improvements in ridership, operating expenses per passenger are also slowly improving. In 2013, operating costs per passenger was at \$3.28.

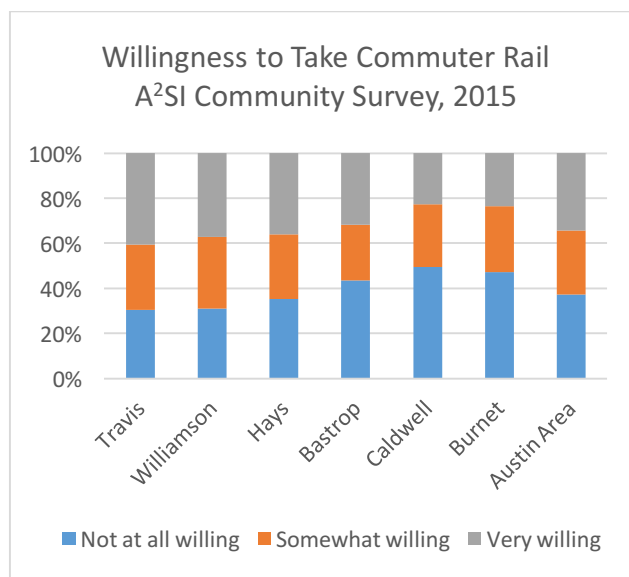
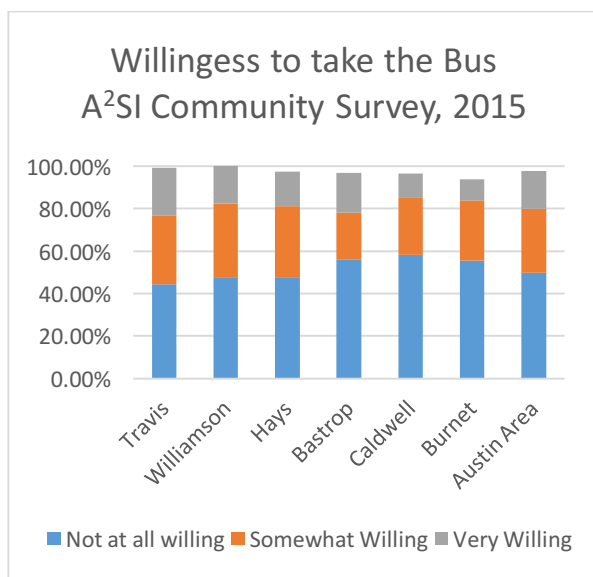


Though Capital Metro has increased its services by adding Metro Rapid lines in 2014, their overall average daily boarding on weekdays seems to be in decline. Factors that seem to affect the decline include low fuel prices and the fare increase in 2015. The most used routes are the local bus and crosstown line. While most service lines have had a decrease in ridership, Metro Rapid, Metro Rail, and the Feeder routes have experienced increases in ridership since Spring 2012. Metro Rapid started service in Spring 2014 with an additional route added in Spring 2015.



According to the A²SI Community Survey, approximately 18% of Austin area residents would be willing to take the bus as an alternative to driving alone “if the conditions were right”. In Travis County, over 50% of those surveyed reported being somewhat or very willing to take the bus.

By comparison, 70% of Travis County residents reported being somewhat or very willing to take train or commuter rail if that was an option. In the Austin area, twice as many respondent’s report being very willing to take a commuter rail versus bus according to the survey data (34% compared to 17%, respectively).



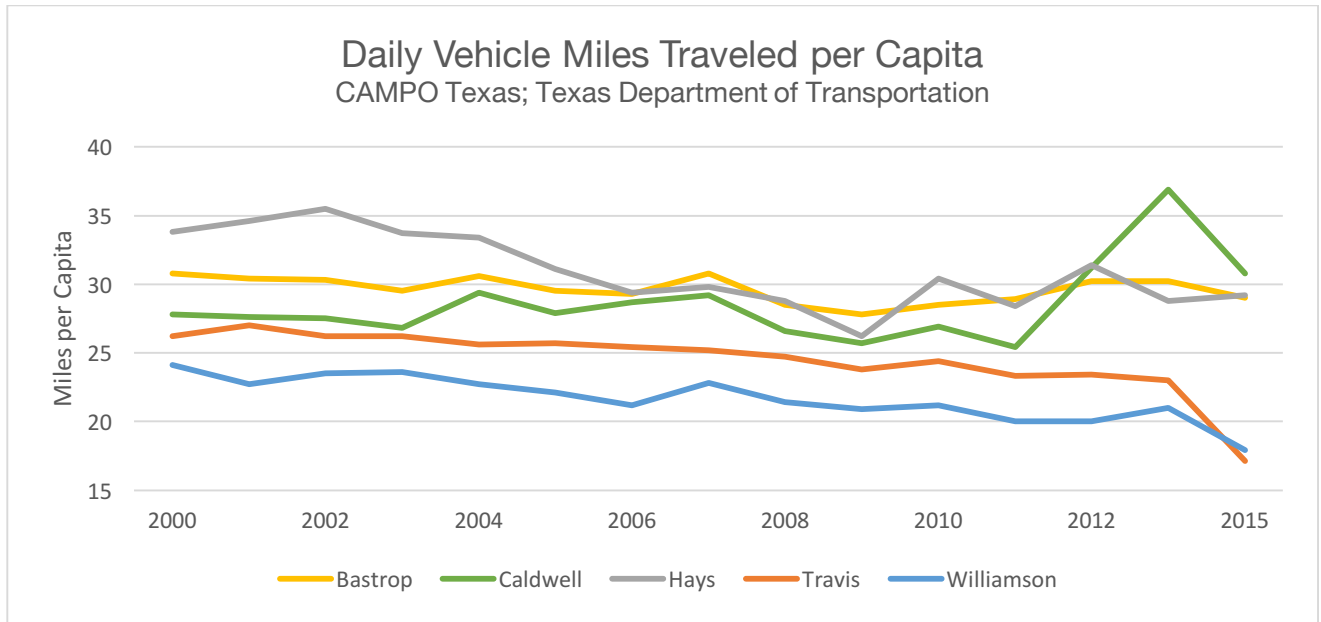
Congestion

The effort to reduce congestion depends on planning and building a comprehensive multi-modal transportation system to strategically distribute work, personal, and other trips. The effort also depends on individuals and families to adapt their lifestyles and travel behaviors to take best advantage of the system to realize savings in fuel, emissions, time, and improving quality of life.

Daily Vehicle Miles Traveled

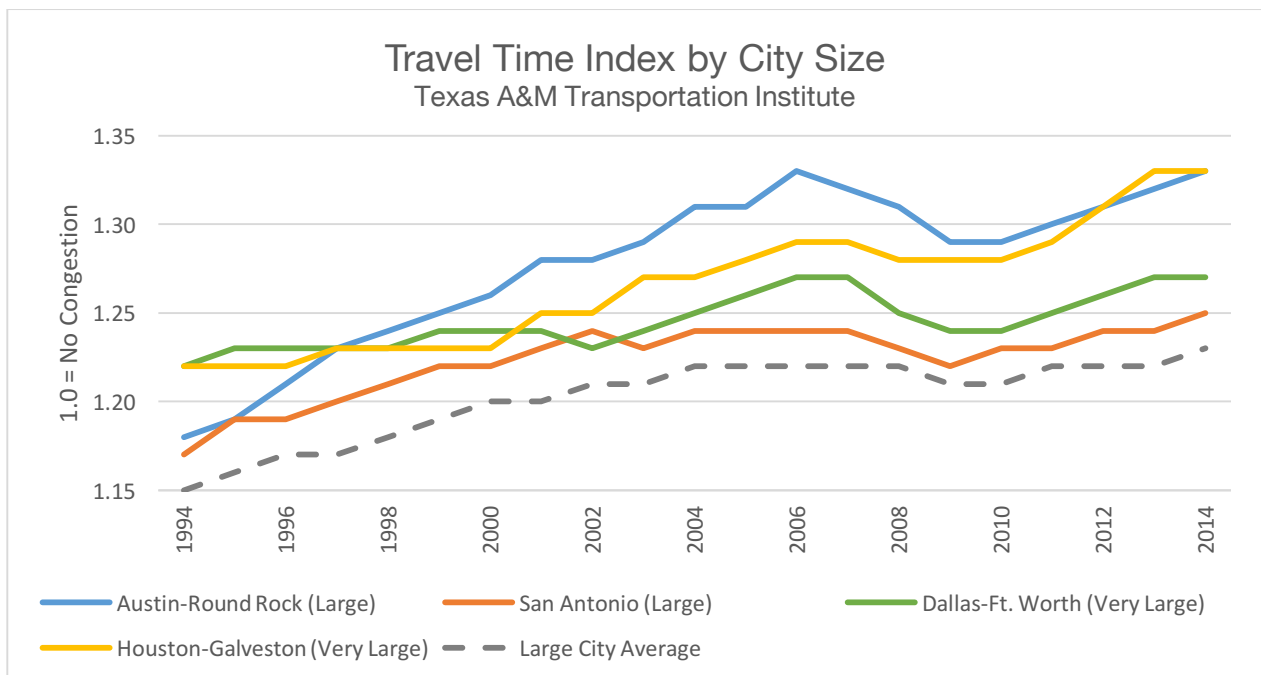
Daily vehicle miles traveled (VMT) are influenced by variables relating to economy, environment, and urban form of a city. Research indicates that reduced vehicle miles travelled increases physical activity, reduces collisions, and decreases air pollution. Incentivizing the use of public transit has proved effective in reducing VMT.

VMT per capita has steadily declined in Williamson County (from 24.1 miles traveled per capita in 2000 to 17.9 miles in 2015) and in Travis County (from 26.2 miles in 2000 to 17.1 miles in 2015). The decrease in VMT in Williamson and Travis counties could be attributed to improved active transportation infrastructure and an increase in population density. However, at the same time, daily VMT for Hays, Bastrop, and Caldwell counties has been more sporadic. Caldwell County has experienced a large increase in VMT, which peaked in 2013 at 36.9 miles and decreased in 2015 to 30.7 miles traveled per capita. All counties, with the exception of Hays County, were able to reduce VMT from 2013 to 2015.



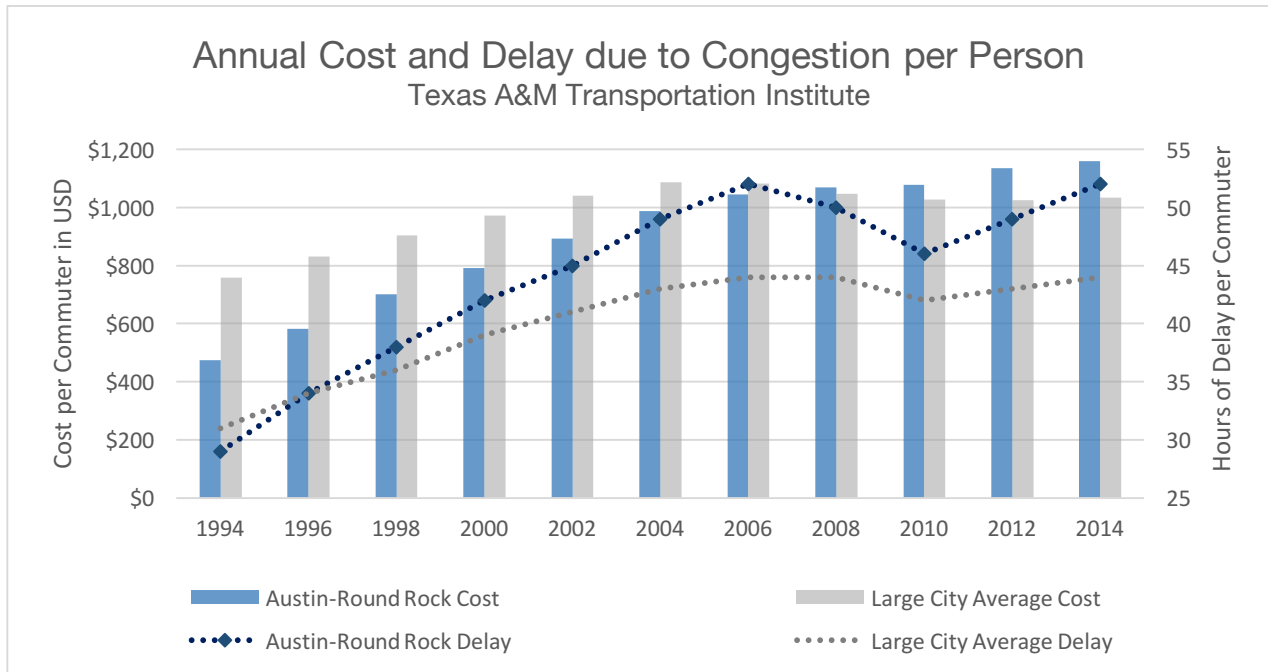
Travel Time Index

The Travel Time Index is the ratio of peak period travel time to free-flow travel time. The TTI expresses the average amount of extra time it takes to travel in peak periods, relative to free-flow travel. Congestion in Austin is well above the average for a city of its size. Consistently since 1998, Austin-Round Rock has had a higher TTI than Dallas and San Antonio. Only in the past few years, starting in 2012, has Houston-Galveston matched or beat Austin-Round Rock's TTI. In 2014, it took 30% more time in Austin-Round Rock to reach the same destination in peak travel time than it did in free-flow travel time.

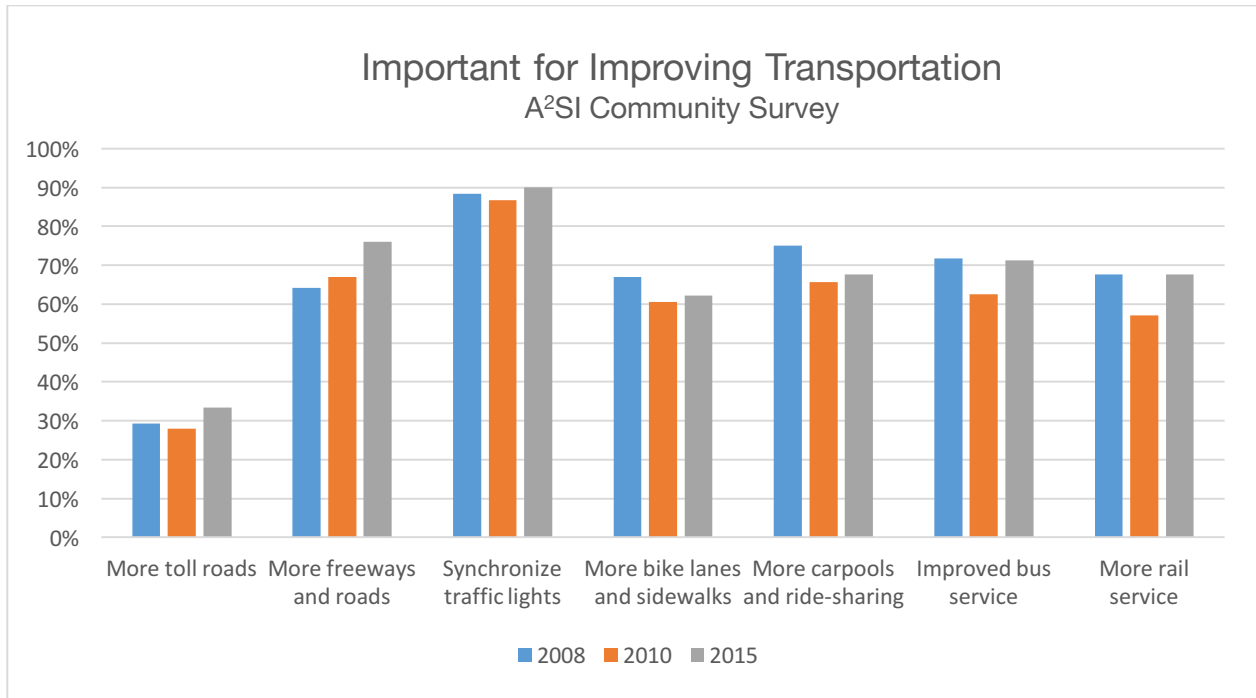


Cost of Congestion

The average annual cost of congestion per commuter in the Austin Area has steadily increased in the past 20 years, and in 2008 it surpassed the large city average. In 2014, annual cost of congestion per commuter peaked at \$1,159. The annual hourly delay in Austin-Round Rock has continuously surpassed that of the large city average since 1996. In 2014, commuters experienced a delay of 52 hours in their travel time due to congestion during peak travel hours.



When asked “important” ways to improve transportation, over 90% of Austin area residents report synchronize traffic lights. This is consistently the top choice going back to 2008. The number of respondents that cited more rail service increased 11% from 2010, from 57% to 68%. The percentage of people responding that “more freeways and roads” are important to improving transportation has increased over the years, with 76% reporting this in 2015.



Summary and Conclusion

The land use and mobility of a region reflects both quality of life and economic well-being. Longer commute times, congestion, and commuter stress can be indicative of a spatial mismatch between jobs and housing – a phenomenon that can especially impact low-income households, as their geographic mobility may be limited. On the flip side, access to parks and open space provide a myriad of recreational activities and physical health opportunities for users. Green space proximity has an effect on public health, quality of life, and general well-being. Making wise decisions about development and transportation patterns are key for a sustainable region.

Appendix A: Glossary

Annual Delay per Auto Commuter – A yearly sum of all the per-trip delays for those persons who travel in the peak period (6 to 10 a.m. and 3 to 7 p.m.). This measure illustrates the effect of the per-mile congestion as well as the length of each trip.

Commuter Stress Index – The ratio of travel time based only on the peak direction of travel. This would be more like the traditional commuter experience of inbound in the morning and outbound in the evening.

Housing Density – Number of housing units within a geographic entity (for example, United States, state, county, place) divided by the land area of that entity measured in square kilometers or square miles. Density is expressed as both "housing units per square kilometer" and "housing units per square mile" of land area.

Operating expenses – are the expenses associated with the operation of the transit agency and goods and services purchased for system operation such as vehicle operation, vehicle maintenance, non-vehicle maintenance, and general administration.

Resource Land – Resource land refers to land and water resources that provide outdoor recreation opportunities

Travel time index – The ratio of the travel time during the peak period to the time required to make the same trip at free-flow speeds. A value of 1.3, for example, indicates a 20-minute free-flow trip requires 26 minutes during the peak period

Unlinked Passengers Trips – is the number of times passengers board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination and regardless of whether they pay a fare, use a pass or transfer, ride for free, or pay in some other way.

Urban sprawl – It refers to the migration of a population from populated towns and cities to low density residential development over more and more rural land. The end result is the spreading of a city and its suburbs over more and more rural land. In other words, urban sprawl is defined as low density residential and commercial development on undeveloped land.

Appendix B: Bibliography

Section	Sub-Section	Indicator	Source	Citation
Land Use and Mobility	Density of New Development	Building Permits by Type in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, Building Permits Survey, Permits by Metropolitan Area, Table 3au. New Privately Owned Housing Units Authorized Unadjusted Units by Metropolitan Area. http://www.census.gov/construction/bps/msaannual.html
Land Use and Mobility	Density of New Development	Residential Housing Density in Central Texas	U.S. Census Bureau	U.S. Census Bureau, 1990 Census of Population and Housing CPH-2-1, retrieved from https://www.census.gov/prod/cen1990/cph2/cph-2-1-1.pdf ; U.S. Census Bureau, GCT-PH1, Population, Housing Units, Area, and Density: 2010 - United States -- County by State; and for Puerto Rico, Census 2010 Summary File 1 (SF 1) 100-Percent Data; U.S. Census Bureau, GCT-PH1, Population, Housing Units, Area, and Density: 2000 - United States -- County by State; and for Puerto Rico, Census 2000 Summary File 1 (SF 1) 100-Percent Data; U.S. Census Bureau, Population Estimates Program (PEP), www.census.gov/popest/
Land Use and Mobility	Density of New Development	Residential Housing Density Austin-Round Rock MSA (map)	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 2014 5 yr estimate B25024: Units in Structure by Census Tract. Accessed 30 Mar 2016.
Land Use and Mobility	Density of New Development	Developed Land Change from 2006 to 2012 in Austin-Round Rock MSA (map)	City of Austin	City of Austin, Extra-Territorial Jurisdiction, Developed Land Change 2006 to 2012. Retrieved from: ftp://ftp.ci.austin.tx.us/GIS-Data/.../Developed%20Land%20Cange.pdf
Land Use and Mobility	Rural Land	Growth in Land Values per Acre in Blacklands South LMA 26	Texas Real Estate Center	Texas Real Estate Center at Texas A&M University, Rural Land Prices for Blacklands-South (LMA 26). Retrieved from: https://www.recenter.tamu.edu/data/rural-land#!/lma/Blacklands_-_South_%28LMA_26%29

Land Use and Mobility	Rural Land	Land Use in the Austin area	Texas Land Trends	USDA Census of Agriculture data as provided by Texas Land Trends, http://txlandtrends.org/data/Trends/Counties/Travis Williamson Hays Bastrop Burnet Caldwell
Land Use and Mobility	Rural Land	Maximum Tract Values by Land Type in the Austin Area	Texas Chapter ASFMRA	Texas Chapter ASFMRA, Rural Land Trends, Accessed 1 Apr 2016, http://www.txasfmra.com/rural-land-trends
Land Use and Mobility	Open Space	Parks and Open Space in Austin-Round Rock MSA (map)	Capital Area Council of Governments	Capital Area Council of Governments. CAPCOG Free Regional Data: Parks and Open Spaces. Retrieved from: http://regional-data.capcog.opendata.arcgis.com/
Land Use and Mobility	Open Space	Resource Land in the Austin area	Texas Parks and Wildlife Department	Texas Parks and Wildlife Department. Maps and Data, LWRCRP Web Viewer: 2012 Resource Land Inventory. Accessed April 12, 2016 from http://tpwd.texas.gov/gis/apps/lwrcrp/
Land Use and Mobility	Open Space	Ownership of Resource Lands in the Austin area	Texas Parks and Wildlife Department	Texas Parks and Wildlife Department. Maps and Data, LWRCRP Web Viewer: 2012 Resource Land Inventory. Accessed April 12, 2016 from http://tpwd.texas.gov/gis/apps/lwrcrp/
Land Use and Mobility	Open Space	Economic Impact of Texas State Parks	Texas A & M University Department of Recreation, Park and Tourism Sciences	Texas A & M University, Department of Recreation, Park and Tourism Sciences. Table 5A&Table5B. In The Economic Contribution of Texas State Parks. Accessed April 12, 2016 from http://tpwd.texas.gov/newsmedia/releases/media/2014-11-06_economic_contributions_to_tsp.pdf
Land Use and Mobility	Open Space	Ownership of Resource Lands in the Austin area	Lower Colorado Development Authority	Lower Colorado Development Authority. Table: 2000-2015 Lake Travis Visitation Information. Accessed Dec 28, 2015. Retrieved from Elizabeth Ray, Sr. Paralegal, Lower Colorado River Authority.
Land Use and Mobility	Commuting	Commuting Modes in Austin-Round Rock MSA	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 1 year estimates, S0801: Commuting Characteristics by Sex. Accessed 30 Mar 2016.
Land Use and Mobility	Commuting	Commute Time to Work in	U.S. Census Bureau	U.S. Census Bureau, American Community Survey 1 year estimates, S0801: Commuting Characteristics by Sex. Accessed 30 Mar 2016.

		Austin-Round Rock MSA		
Land Use and Mobility	Commuting	Time Commuters Leave Home for Work in Austin-Round Rock MSA		U.S. Census Bureau, American Community Survey 1 year estimates, S0801: Commuting Characteristics by Sex. Accessed 30 Mar 2016.
Land Use and Mobility	Commuting	Commuter Stress Index	Texas Transportation Institute	Texas A&M University Transportation Institute, 2015 Urban Mobility Scorecard. Retrieved December 16, 2015, from http://mobility.tamu.edu/ums/
Land Use and Mobility	Commuting	Capital Metro Unlinked Bus Ridership	National Transit Database	National Transit Database, Profile Archives, retrieved from: http://www.ntdprogram.gov/ntdprogram/archives.htm .
Land Use and Mobility	Commuting	Average Daily Boarding on Capital Metro Routes on Weekdays	Capital Metro	Capital Metro, Ridership History: Ridership by Route by Service Period. http://capmetro.org/stats/ . Accessed 30 Mar 2016.
Land Use and Mobility	Congestion	Daily Vehicle Miles Traveled per Capita	CAMPO Texas; Texas Department of Transportation	CAMPO, Congestion Management Data, Travel Behavior October 2014, http://campotexas.wpengine.com/congestion-management-data/ . Accessed 1 April 2016; Texas Department of Transportation, DISCOS, https://www.txdot.gov/inside-txdot/division/finance/discos.html
Land Use and Mobility	Congestion	Travel Time Index by City Size	Texas Transportation Institute	Texas A&M University Transportation Institute, 2015 Urban Mobility Scorecard. Retrieved December 16, 2015, from http://mobility.tamu.edu/ums/
Land Use and Mobility	Congestion	Annual Cost and Delay due to Congestion per Person	Texas Transportation Institute	Texas A&M University Transportation Institute, 2015 Urban Mobility Scorecard. Retrieved December 16, 2015, from http://mobility.tamu.edu/ums/