

Austin 2027:

The Attitudes and Opinions of Public Administration Professionals on the Challenges faced by Austin Texas over the Next Ten Years.

By

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Abstract

Since the 1950s there has been a migration of people into the urban cities of the world. Urban populations continue to grow as people look for prosperity and improvements in their lives. With this urban growth there are certain challenges that cities must face as they expand and grow to accommodate more people.

Austin Texas is now one of the fastest growing cities and metropolitan regions in the United States and is facing the challenges that are linked to its growth. The purpose of this research is to describe the attitudes and opinions of professional administrators about the challenges of future growth of Austin over the next ten years.

Purpose

Throughout the literature the challenges for growing cities is identified and the survey of Public Administration professional was developed from this framework.

Method

The findings show that the respondents were most concerned with the transportation issues that Austin faces along with housing challenges that are arising from the population growth. In addition to identifying the challenges that

Austin faces in their opinions they were also to provide some suggestions that could be considered as Austin moves forward over the next ten years. These suggestions ranged from changing the building codes in housing to building more roads and mass transit in transportation.

About the Author

Christopher Hoerster is a native of Austin, Texas. Born there in 1965 he has spent the majority of his life in and around Austin. Over the years he has seen Austin grow from a sleepy little college town to the 11th largest city in the United States. The growth of Austin was one of the reasons he retired from 30 years in the restaurant business and returned to college to earn his Bachelors' in Public Administration and now his Master's in Public Administration from Texas State University in San Marcos. During this time he has worked for non-profits in Austin and was a candidate for Austin City Council in 2014 under the first district election in the history of Austin. He plans to remain in Austin with his wife, Shannon, and their sons, Jake and Zack. He plans use his new education to give back to the city in any way that he can.



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Chapter One: Introduction

Austin Texas, county seat of Travis County and state capital of Texas, has undergone historic growth and change during the past decade. In today's numbers it is reported that the city is growing in population at a rate of 157 people per day. The current estimated population of Austin proper is now 950,000 people and the Austin MSA has just been announced as exceeding over 2 million people. Austin is now the eleventh largest city in the United States (U.S.Census, 2016).



Courtesy of City of Austin

With this growth rate there have been, and will continue to be, many challenges for local public managers in providing policies that will help maintain the quality of life standards that many Austinites expect. The rapid growth has

created a shortage in housing stock, both retail and rental, and this shortage has caused housing values to rise as much as 100% during the past five years (Austin C. O., 2015) The theme of gentrification has become more prevalent as home values, and the market based property taxes, have risen dramatically. Shortages in affordable housing have also contributed to a 20% increase in Austin's homeless population - a population which a short time ago was shrinking (ECHO, 2016).

Increases in property values and taxes are driving medium income residents to relocate out into the outer suburbs, which are growing 3 times the rate as the urban center. With this suburban growth Austin has seen increased traffic congestion on its main arterial thoroughfares thus increasing drive times for many (Commerce, 2015). According to the Texas A&M Transportation Institute (TTI) congestion in Austin is currently over 6 hour commute per day and with the Austin MSA projected to double in the next 20 years, this problem will only get worse (Institute, 2013). Reports from Leadership Austin Conversation Corp (Austin L., 2015), based on a survey of Austin residents and the Imagine Austin Comprehensive Plan (Austin, 2015) reveal that citizens have similar perspectives on the current challenges facing Austin. The purpose of this research is to describe the attitudes and opinions of professional administrators about the challenges of future growth of Austin over the next ten years.

Chapter Summary

This chapter provided a brief historical context for the City of Austin and some evidence from literature to support the framework for the literature review. The following chapter will provide the literature review which supports challenges faced by cities across the nation and the world when facing urban growth.

Chapter Two: Literature Review

Chapter Purpose

This chapter reviews the literature regarding cities across the world and the issues that many of them face when undergoing economic and population growth. In addition it develops a descriptive framework to examine the potential problems faced by Austin, Texas over the next ten years.

Underlying Trends

Urban Growth

Cities and urban areas are growing year by year. In 2007 the population living in urban areas across the globe passed the 50 percent mark for the first time. Today it is estimated that over 54 percent of the population in the world lives in an urban area and in The United States that number is estimated at 82 percent. This represents a growth of over 400 percent since 1950. It is estimated that this number will grow by another 2.5 billion people by the year 2050 (United Nations, 2014). This growth, often referred to as urbanization, is usually associated with

economic and social changes. Concentrations of government and commerce form in these cities and urban areas as well as transportation and employment. Higher education, improved health care and better access to social services are often found as some of the reasons that cities and urban areas grow (United Nations, 2014).

“Cities are growing because of the advantages that they provide (Voith & Wachter, 2009, 113).”

Urban and city growth does not come without challenges though. Without proper management and planning cities may face challenges in housing, transportation, and impacts on the environment. Within each of these areas serious social inequities can be created and fostered (United Nations, 2014).



City of Austin

Social Equity

There are many ways to observe and define social equity. Litman writes that “equity refers to the distribution of impacts and whether that distribution is considered fair and appropriate” (Litman, 2014, 3). “The Standing Panel on Social Equity of the National Academy of Public Administration (NAPA) has defined social equity as the: Fair, just and equitable management of all institutions serving the public directly or by contract, and the fair and equitable distribution of public services, and implementation of public policy and the commitment to promote fairness, justice and equity” (Gianakis & Snow, 2008, 68). Accessibility is commonly cited as a fundamental measure of social equity, and accessibility in an urban built environment would include key services and facilities, public transportation routes, walking and cycling (Dempsey, Bramly, Power, & Brown, 2011).

Overview of the Framework

Three main points of Housing, Transportation and Environmental Impacts emerge as opportunities faced by cities during this time. These factors were used,

along with citizen input from Leadership Austin and Austin’s “Imagine Austin” plan for the future to create the descriptive categories for survey of Public Administration professionals in Austin. The descriptive categories are Housing, Transportation, and Environmental Impacts (Austin C. O., 2015) (Austin L. , 2015).

Housing

Housing and shelter is one of the primary needs of all people. As cities grow and economies change challenges in meeting housing needs often occur. Despite efforts by the government issues like housing affordability and supply can quickly escalate and for many the loss of social equity can lead to in extreme cases, homelessness. It is for these reasons that housing is the first category introduced in this literature review.

Affordability

There are several factors that must be considered when discussing housing affordability: defining affordability, how affordability is calculated, causes of affordability and national trends in affordability.

Affordability Definition

There are various ways to define affordability that can result in very different conclusions. The term affordable can also be relative to the household. Housing affordability refers to the ability of a household to pay for adequate housing. The common rule of thumb that defines housing affordability specifies that a household spends no more than 30 percent of their income, whether it is rent or mortgage allocated towards the cost of housing and utilities (Isalou, Litman, & Shahmoradi, 2014). “Talk of housing affordability is plentiful, but a precise definition of housing affordability is at best ambiguous” (Schwartz & Wilson, 2006,1).” Because of this ambiguity for purpose of this paper affordability will be considered as housing cost and the related cost along with the concerns that are raised when population groups are unable to meet typical regional housing costs.

Calculating Affordability

The calculation of housing affordability has been considered since the United States National Housing Act in 1937. The act created public housing in which income limits were set. These incomes could be no more than five to six times the rent. Later the standards were switched to maximum rental charge settings which were 20 percent. By 1981 the threshold was adjusted to the now 30 percent standard incomes to housing cost ratio. Thus, anything the household spends over the 30 percent on housing and related cost is considered a “housing burdened” (Schwartz & Wilson, 2006).

Today, across the nation, the focus of affordable housing has shifted to developers or the ability of a city to offer reasonably priced housing (particularly new housing so developers are a focus). “Affordable” housing can also be calculated in very specific terms such as the Median Family Income (MFI) for a metropolitan region. Affordable housing can be set as a percentage of varying MFI’s. This supply of new affordable housing is often influenced by developer tax breaks and incentives (offered by governments). There are common “affordable” housing projects based at 60 to 80 percent of the MFI. In layman’s terms this means that the housing cost is not based on the individual incomes per say but on the regional MFI (Mangin & Woo, 2009). For example, if the regional MFI is \$50,000 per family then “affordable” housing at an 80 percent MFI would be based on the rent and calculated utility expenses being no more than 30 percent of the household income. This housing could be no more than \$12,000 per year or \$1,000 per month. This includes the rent or mortgage plus utilities and any other expenses toward the housing cost (Mangin & Woo, 2009).



Mary Lee Foundation

Affordability National Trends

For a growing segment of the workforce, rents are rising faster than incomes. Gross rents have been growing faster than inflation, while the median renter's monthly income has declined 7.3 percent since 2000. Back in 2005, 45.7 percent of renter's households were spending more than 30 percent of their income on housing cost (Katz, 2008). Now considering that these numbers are eleven years old perhaps more alarming is a report on housing rentals in 2015 from the Joint Center for Housing Studies of Harvard University which cites that without intervention by the year 2025 the United States could see an increase of severely cost burdened households grow by 25 percent to over 14.8 million. Furthermore, the need for affordable housing is already overwhelming the government and the private sector

is unable to supply affordably priced housing due to land and building expenses (Charette, Herbert, Jakabovics, Mayra, & McCue, 2015).

Common Causes

There are several factors discussed in the literature¹ for affordability issues to be present in urban regions. Causes range from growth factors to employment and payroll issues. Susan Wachter and Richard Voith (2009) found that 1970 rent and home prices were similar in the thirty largest cities however by 2000 there was a differentiation of home prices but not in rent. Rent and home prices remained flat in cities without growth. Cities with anticipated growth saw a spike in home prices and while rents increased, it was slower. This growth was also experienced in the surrounding areas of these growing cities. From 1970 to 2000 these growth cities experienced a change in median home values to income ratio of nearly 300 percent. This housing price volatility in the direction of increases resulted in considerably less affordable cities. While rental affordability was less affected the study found that renter neighborhoods may have been deteriorated, and the rents are reflecting this declining housing stock. It is also suggested that the risk in rental property investing was reduced. This study showed that housing affordability often declines as cities grow. Very little affordable housing is being

¹ See (Katz, 2008), (Voith & Wachter, 2009), (Charette, Herbert, Jakabovics, Mayra, & McCue, 2015).

built and what is being built is under government subsidy programs (Voith & Wachter, 2009). In Europe, changes in the economic climate lead away from affordable housing. The recession in the 70s and the need to better control government budgets move the idea of government subsidies going toward the building and construction of affordable homes to a new plan of supplying low income and those in need with housing subsidies. Under this new plan housing prices were allowed to grow to market rates (Van Weesep, 2000).

Supply

Housing Supply Definition

Information about the factors that influence the supply side of housing has been less available compared to information about the demand side of the market. Data on the quantities of housing available on the supply side has just now become more available. This new information is allowing for a better understanding of the supply side. It is becoming clear now that housing is cyclical in nature. Those that study the urban dynamics of the supply side calculate the available supply as the total number of units in an area being the supply and the total number of families in an area being the demand side. Those that are interested in the market side of housing think of supply as the number of units available for rent or purchase with the demand

side represented by the number of people currently looking for housing (Gyourko, 2009).

Causes of Housing Supply Challenges

Political, cultural and geographic factors underlie differences in approaches to planning. Because the U.S. has much lower population density and constitutional restrictions on the states' right to restrict citizens, allows for much less public control over what is built. Britain, Germany and the Netherlands have different issues due to heritage, population densities and land availability. In the USA, different states have more access to available land which can impact building and planning strategies. The housing development industry often reflects the regulatory climate for each region. For the older and more densely populated regions the development process is slower as a result of regulations or perhaps historical matters in these older regions (Barker, 2008). Also, though the housing supply is still growing it is not keeping pace with population growth. Local zoning laws and other regulatory challenges have put a limit on the available housing and the cost of said housing (Charette, Herbert, Jakabovics, Mayra, & McCue, 2015).



PBS

With these regards, the housing supply challenge is not only a problem in the U.S. In Germany, for example, housing shortages were explained by the following factors: the decline of newly built Social Housing units (low-income housing), because of construction and financing cost, the loss of older rental units bought up by the better-off and refurbished, unprofitability in the rental market, housing occupants who earn more than the allowed maximum income (false occupancy), and displacement of rental units by commercial and professional development (Hass-Klau, 1982). While this study was in Germany in 1982 the same problems with affordable housing can be seen across the market today.

Housing Social Equity

Definition

Whereas social equity can be considered the fairness in the distribution of goods and services as discussed previously, housing, social equity is thus considered

the equitable distribution of housing. Economic development by local governments can lead to social inequalities. Local government promotes policies which often yield benefits for the population but as a result of the cities pushing harder social inequities. While some profit from economic transformations others are excluded. This creates divides between the haves and the have nots. Housing policies are meant to provide the entire population with affordable housing but despite a history of government intervention social inequities in housing remain (Van Weese, 2000). Tensions between market incentives and the needs of low income citizens have no mechanism to ensure the poor have housing. This task often falls on government. The U.S. Housing and Urban Development (HUD) and the City of Austin's Housing Authority (HOCA) are examples. In addition, this issue often comes up in local elections.

Causes of Inequities

There is a correlation between housing policy, residential location and job access. This correlation is shown in the job prospects of welfare recipients. Recipients who are in public housing projects and section 8 housing are more spatially concentrated than those who do not live in public housing. This inequity allows for the latter to be more employment mobile and have better opportunities in the job market. Those with vouchers can choose their living locations are more likely to be employed closer to home and have better access to mass public transportation.

This brings into question of whether welfare programs and the housing supported by it are not a disadvantage to the social equity of housing (Bania, Coulton, & Leete, 2003). It also seems that there are paradoxes—the case where a well-intentioned policy can have an unintended consequence. People living in concentrated public housing may have inadequate access to adequate transportation options and less access to the job market.

Supply can also create inequities in housing for many. If vacancy rates are low a gap is created between the rents that are being charged and the rates of vacant units. This creates a market condition where any new units or units that are renovated are priced relatively higher which pushes them out of the affordable bracket (Fallis, 1990).

Urbanization, the population shifts from rural to urban, can also be a leading cause of social inequity. As cities expand rapidly, there is a risk that infrastructure will not keep pace with their growth or the increased expectations of the population. With just over half of the world's population living in cities new migrants into a city are expected to create a greater economic value. However, even when cities are successful, the process is not always smooth. Growth will increase the demand for new housing which will raise prices in the short run (until new housing can be built). If the new residents have relatively higher incomes, they will bid up the price of rents and homes. Rapid and unplanned urbanization can lead to social unrest for the

poor. Widening inequalities tend to be starkly visible. Urbanization can also create high population density and fuel shortages in affordable housing which in turn contributes to social exclusion (Wilson, 2015). As a result of these social inequities, many lower income and poorer citizens may find themselves homeless.

Homelessness

One result of the lack of social equity in housing is that many people are priced out of the housing market and become homeless. The McKinney-Vento Act of 1987, has defined homelessness as “anytime an individual or family has a primary night time residence that is not meant for human beings to sleep in, an individual or family that resides in an operated shelter for temporary living, at risk of losing their home, staying with others in their home, has no subsequent residence identified, lacks resources or support to obtain permanent housing, have experienced long periods without permanent housing, and can be expected to continue such status a result of illness, disability or mental incapacity” (Congress, 1987, 1).

The U.S. Department of Health and Human Services (HHS) defines homelessness as “an individual who lacks housing (without regard to whether the individual is a member of a family), including an individual whose primary residence during the night is a supervised public or private facility (e.g., shelters) that provides temporary living accommodations, and an individual who is a resident in transitional housing.” A homeless person is an individual without permanent

housing who may live on the streets; stay in a shelter, mission, single room occupancy facilities, abandoned building or vehicle; or in any other unstable or non-permanent situation” (NHCHC, 2016,1).



The distinction for HHS and HUD is in regards to their requirements for funding under these definitions.

As the issue of housing affordability, supply and social equity are brought to the forefront the issue of transportation becomes a key challenge in growing cities. The availability of public transportation for those wishing to use it and for those that need it for survival becomes paramount to the city. And while many people move further out into the suburbs yet remain employed in the city core. Traffic congestion adds to the time and cost of daily commuting needs, and for those in the lower

socioeconomic ladder the need to move outward to the suburbs for more affordable housing adds on extra transportation cost and availability.

Transportation

Accessibility

Definition and Categorization

For this paper transportation accessibility is defined as whether any citizen has access to modes of transportation, whether these modes be private or public. Public transportation is discussed first because as cities grow and affordable housing is shifted further from the city core the lack or shortage of public transportation becomes crucial for traffic control and congestion and as another layer of cost for those citizens that are most in need.

Public Transportation

Public Transportation is a service provided to all who want or need it, even those who are low income or have little or no money. It can be provided by either public or private organizations. Public transportation is most common in the urban settings and can be regional or metro by design. It is most commonly made up of

bus, rail train and trolleys. It can also be known as transit and mass transit (Vuchic, 2002).

Issues with Public Transportation

A study by Mamon and Marshall (1977) found that urban density and the dispersal between jobs and residences explains why people decide to use mass transit or private owned vehicles. Thus, with urban sprawl and people moving into the suburbs for affordability and space it can become be less and less economically feasible to provide for mass transit in these areas. It also is shown that since mass transit is built to deliver passengers to well defined employment centers from low density residential areas that the consumer must still use their private transportation to gain access to the mass transit. In the analysis, it was found that in this can many simply made the choice to use the private transportation for the entire trip instead of making the change to mass transit (Mamon & Marshall, 1977). Though this source is older it should be mentioned that it reflects a beginning stage of the suburban growth of many cities.



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Congestion

Definition

Road congestion can be defined as a bottleneck in transportation that limits the flow of traffic capacity. If the number of drivers increases beyond the infrastructure capacity a queue is developed and the bottleneck is determined by the time it takes a driver to pass through said queue (Vuchic, 2002).

Root Causes

There are many causes of congestion. First suburbanization is one major cause behind the increase in traffic congestion. The growth of the suburbs, as a result of the growth of the city, has outgrown the ability of many localities to keep up with

the transportation infrastructure needed, whether it be roads or public transportation. Second the aging of the baby boomers and an increase in women in the workforce have created different trends in traffic flow. More 'chained' trips now occur which disrupt the ideas of mass transit and carpooling. Third the jobs have also become more suburbanized and with cheaper land corporate America has moved to the suburbs and as jobs have grown in the suburbs the ability to live and work in the same place has become more difficult (Cervero, 1991).



City of Austin

Transportation Social Equity

Definition

“Equity in transportation means a system that works for everyone and at many different levels. Especially in these times of unemployment and unprecedented income inequality, transportation policy is one of the most pressing civil rights issues facing our nation” (Quamie, 2011, 59).

Transportation inequities in cities can have many effects. While we have previously discussed housing inequities the snowball effect can be harmful to our low-income citizens. The lack of transportation can also affect public health. Without the ability to travel for quality food and medical attention health care be threatened. And, transportation cost associated with a commute to the city fringes increase inequities (Quamie, 2011).

Consequences of Transportation Inequities

Public transportation is provided as one means to bring equality to those in need. However, public facility siting can often fall short of the needs. Public transportation officials are often much like their private counter parts; they must focus on the lowest immediate cost of providing service. This is because of the rationale that taxpayers want the best financial deal possible. The decision makers are not always in tune with the best needs of who they serve and those that cannot

afford an automobile for transportation needs. This inequity is prohibited by the Americans with Disabilities Act (ADA) but not for the poor and needy. While the intention is good government agencies can tend to locate facilities in inaccessible areas where the need for social equity is not met (Grimshaw, Public Facilities Siting and Transportation Access, 1995).

Environmental Impacts

Growing populations in cities and urban areas can pose a threat to the environment. More people bring more demands and needs for energy, water and development. These needs can and do have impacts on the environment if not managed and carefully planned for.

Sustainability

Definition and Explanation

The Merriam-Webster (ND) dictionary defines sustainable as “being able to be used without being completely used up or destroyed or involving methods that do not completely use up or destroy natural resources (Merriam-Webster, 2016).” For purpose in this context the latter is best suited. It is an interesting note that the concept of sustainability was first derived by an economist. The environmental movement quickly became the highest champion for sustainability since environmental loss represented the highest profile impact (Holland, 2012). While

it is a global concern humans are an increasingly urban species and the cities they have created are the front line for sustainability. The idea of localization is crossing paths with the heritage of the species and the technologies to ensure sustainability. Sustainable simply means addressing the areas where we are currently not sustainable and doing things differently going forward.

The challenge is for our society to survive in the future with a comparable economy, which necessitates addressing many current fundamentals such as climate change, fossil fuel dependency, waste and pollution, water supply, habitat degradation, food security, economic prosperity, governance and management (Holland, 2012). For our purposes, here discussions of current environmental concerns address renewable resources, water and sustainable development all of which involve infrastructure. During times of rapid urbanization and city growth many cities face the challenge of planning for and providing sustainability in these three areas. The sometimes high cost of rapidly needed infrastructure can lead to inflated cost for these services which in turn must be passed in the rate payer and or the tax payer.

Renewable Energy

Renewable energy use is important because it promotes the goals of sustainable development. Renewable energy use can deter high harmful gas emissions and

increase jobs. Renewable energy has the potential for aid in sustainable development and provide affordable energy without degrading the environment (Bloyd & Bloyd, 2001).



Webberville solar farm courtesy of NPR State Impact

Renewable energies include solar, wind, geothermal, clean bioenergy and small scale hydro power. These forms of energy are self-sustaining and are natural replenished as in contrast to fossil fuels which have a finite supply. At present renewable sources supply about 13 percent of the global supply of energy needs with high emission biomass as 10 percent of that. Goals of 33 percent of global energy coming from renewable energy in twenty years require much work to be done.

The current challenge at hand is that the cost of renewable energy production is still higher than that of fossil fuels. And while it is projected that the gap will narrow

over the next ten years it currently leaves an affordability challenge. While some advocate for additional carbon taxes to narrow this gap, others note that a carbon tax would only enhance affordability challenges associated with housing and transportation, particularly among those at the bottom of the socioeconomic spectrum (Pollin, 2015).

Water

Definition

Water hardly needs defining but it is fundamental to society. It is essential for life including consumption and for growing food. It is used in electrical generation and many industrial productions. Water has been critical throughout human history and while we rely upon it for our lives it can also be seen as a risk in both floods and droughts (Houser, et al., 2015). There are two major challenges that involve water, too much of it i.e. flooding and not enough of it i.e., drought. Both problems can be found in the same areas of the world at different times and both problems must be faced by both rural and urban centers.

Availability

Drought

The availability aspect of water has broad reaches. Shortages affect people through insufficient drinking water or crop irrigation water. Arid regions, such as

the Southwest are experiencing seasonal droughts and changes in precipitation. The regions are also experiencing population growth. With these problems comes the issue of water scarcity and will require evaluations of customer water use and new sources of water. Restrictions of water use and the resulting drop in sales revenues from water are beginning to be the result leaving many municipalities with short falls in revenues to invest in new resources (Ginley & Ralston, 2010).

PHOTO BY CHASE A. FOUNTAIN, TEXAS PARKS & WILDLIFE



It is estimated that by the year 2050 that almost a billion people will live in urban areas with perennial water shortages and over 3 billion will reside in urban areas with seasonal water shortages. These shortages are caused by the lack of available water, the cleanliness of available water and by the ability to move the water where it is needed (McDonald, et al., 2011, 6312). In Texas alone the population is expected to double by the year 2060 and the demand for water will grow by 27 percent. Existing supplies of water are anticipated to decrease by 18 percent during the same time. For this it is estimated that the economic impact for Texas will be over \$98 billion by the year 2060 if water management strategies are not implemented soon (Schmandt, 2011, 283). An Austin water resource planning task force, as a result of the drought from 2010 to 2015 has implemented a tiered drought response strategy to address future concerns. These strategies include tiered water usage, increased storage capacity and heavier capture planning (Hoffpuar, 2016).

Flooding

Flooding accounts for 40 percent of natural disasters around the world and is the main cause of natural disaster deaths in the U.S. Flash floods kill more people than any other and many are motorists that try to cross moving flood waters. There are also socio-economic considerations to flooding. As urban populations grow, if planning is not considered effectively, low income residents can be living in flood



Flooding courtesy of the Huffington Post

plains due to the low-cost of land where low income housing tends to be built because of cost challenges. There are also long term effects from flooding such as psychological effects, economic effects, and long term health effects (Ohl & Tapsell, 2000).

Environmental Social Equity

Definition

Environmental equity means that there should be a minimum level of environmental quality below which nobody falls. Within a community, it usually also means that everyone has equal access to community resources and opportunities, and that no individuals or groups of people should be asked to carry a greater environmental burden than the rest of the community because of government actions. It is generally agreed that equity implies a need for fairness (not necessarily

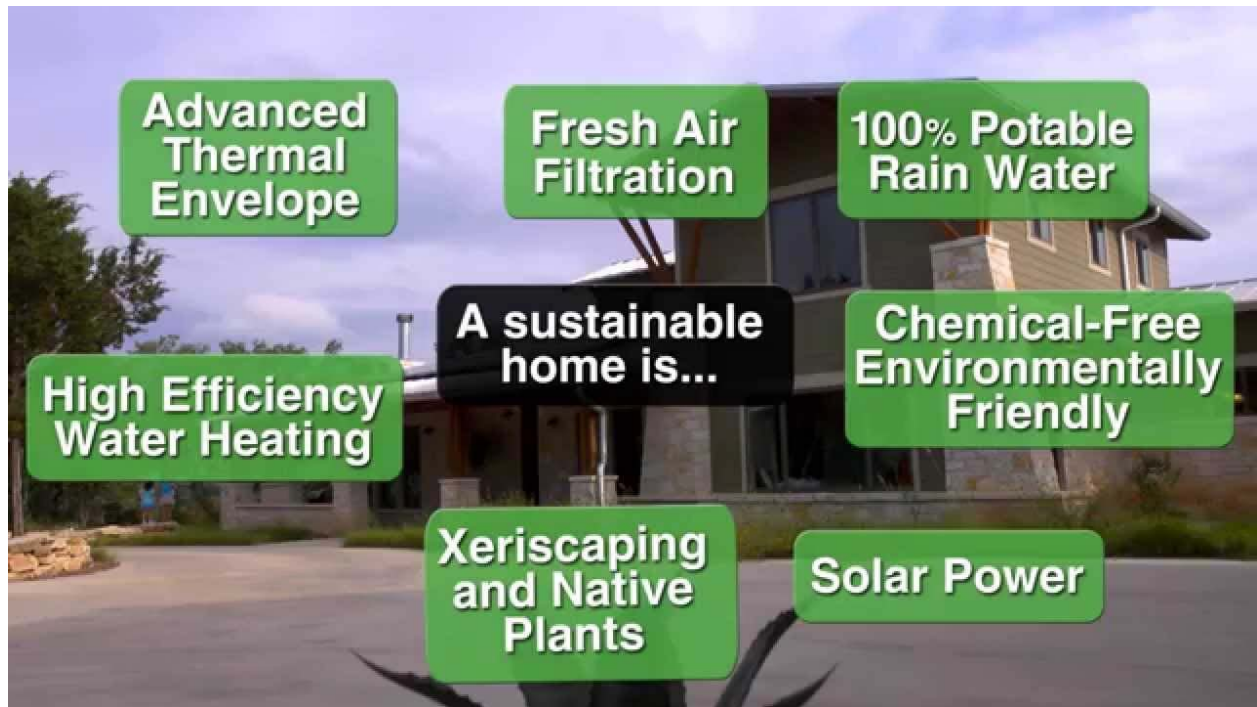
equality) in the distribution of gains and losses, and the entitlement of everyone to an acceptable quality of standard of living. Environmental inequities already exist in all societies. Poorer people tend to suffer the burden of environmental problems more so than others do (Beder, 2000).

Causes of Inequities

Hefland and Peyton (1999) point to four causes of environmental inequities. 1) Poverty. It is suggested that poorer people are more willing to accept environmental inequities than richer people. Also, the poor are more willing to work in jobs that pose greater environmental hazard. And like the poor, industrial facilitators also look for cheaper land to build industries. 2) Information. Poor people are less educated and have less access to the information needed to make the right environmental decisions. 3) Political Power. There is a lack of political power and influence in poorer communities. The poor have less access to the political structures need to gain social equity and 4) Racism might lead those in power to impose their will over poor and minority communities (Helfand & Peyton, 1999).

Sustainable Development

The central ethical principle behind sustainable development is equity and particularly intergenerational equity. Sharon Beder cites The Brundtland Commission (1987) which played such a prominent part in popularizing the notion of sustainable development defined it in equity terms as: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Subsequently the Commission’s 1987 report, *Our Common Future*, was endorsed by the United Nations and its definition adopted by all nations all over the world. Equity is about fairness: Equity derives from a concept of social justice. It represents a belief that there are some things which people should have, that there are basic needs that should be fulfilled, that burdens and rewards should not be spread too divergently across the community, and that policy should be directed with impartiality, fairness and justice towards these ends (Beder, 2000, 227).



A Sustainable Home Is... By Native green construction - Austin

Summary of the Conceptual Framework

This paper explores the influence of urban growth on housing, transportation and the environment. These three categories form the basis of a framework to elicit perceptions of public administration professionals about these challenges in Austin over the next 10 years. The framework is summarized in Table 2.1 and linked to the literature.

Table 2.1

Descriptive Categories Conceptual Framework

Title: Austin 2027

Purpose: The purpose of this research is to describe the attitudes and opinions professional administrators about the challenges of future growth of Austin over the next ten years.

Category	Literature
Trends	(Nations, 2014) (Voith & Wachter, 2009)
Overview of the Framework	(Austin C. O., 2015) (Austin L. , 2015)
Social Equity	(Dempsey, Bramly, Power, & Brown, 2011) (Beder, 2000) (Litman, 2014) (Gianakis & Snow, 2008) (Rice, 2004)
1. Housing	
1.1. Affordability	(Isalou, Litman, & Shahmoradi, 2014) (Schwartz & Wilson, 2006) (Mangin & Woo, 2009) (Charette, Herbert, Jakabovics, Mayra, & McCue, 2015) (Katz, 2008) (Voith & Wachter, 2009) (Van Weesep, 2000)
1.2. Supply	(Gyourko, 2009) (Mangin & Woo, 2009) (Barker, 2008) (Hass-Klau, 1982)
1.3. Housing Social Equity	(Van Weesep, 2000) (Congress U. S., 2009) (NHCHC, 2016) (Bania, Coulton, & Leete, 2003) (Fallis, 1990) (Wilson, 2015)
2. Transportation	
2.1. Availability	(Ziegelmeyer, Koessler, My, & Denant-Boemont, 2008) (Vuchic, 2002) (Mamon & Marshall, 1977)
2.2. Congestion	(Vuchic, 2002) (Cervero, 1991) (Fallis, 1990)
2.3. Transportation Social Equity	(Quamie, 2011) (Grimshaw, Public Facilities and Transportation Access, 1995) (Litman, 2014) (Grimshaw, Public Facilities and Transportation Access, 1995)
3. Environmental Impacts	
3.1. Sustainability	(Holland, 2012) (Bloyd & Bloyd, 2001) (Pollin, 2015)
3.2. Water	(Houser, et al., 2015) (Ohl & Tapsell, 2000) (Ginley & Ralston, 2010) (McDonald, et al., 2011) (Schmandt, 2011)
3.3. Environmental Social Equity	(Beder, 2000) (Helfand & Peyton, 1999)

Conclusion of the Literature Review

As reflected in this literature review while there are positives to economic growth and prosperity there are also challenges cities and urban areas must address. Housing, transportation and the environment must be taken into consideration and carefully planned for when a city or urban area is growing. The literature demonstrates that these issues often take on a domino effect cascading into larger problems and affecting more people whether addressed or not.

This chapter has identified the key challenges that face cities because of growth. These identified challenges developed the descriptive categories of housing, transportation and environmental impacts. Included in this chapter was the introduction of the conceptual framework and the literature used to develop the categories. In the next chapter, methodology, an operationalization table is developed and an explanation to how the descriptive categories survey was developed and implemented.

Chapter 3: Methodology

Chapter Purpose

The purpose of this chapter to present the methodology used to describe the attitudes and opinions of public administration professionals about the challenges of future growth by the City of Austin. This was accomplished through survey research. The questionnaire was developed and organized using the descriptive category in the conceptual framework.

These categories are:

1. Housing

(a) Affordability

(b) Supply

(c) Social Equity

2. Transportation

(a) Availability

(b) Congestion

(c) Social Equity

3. Environmental Impacts

(a) Sustainability

(b) Water

(c) Environmental Social Equity

The operationalization for this is shown in table 3.1. The conceptual framework is comprised of the descriptive categories which in turn are broken down into descriptive subsets. These subsets are further explored using distinct survey questions that pertain to each individual subset. As written in the “*Playbook for Research Methods*” (Shields & Rangarajan, 2013) the conceptual framework (categories) is operationalized through the creation of the corresponding questionnaire item. The questionnaire item eventually becomes the variable. In this way, all of the items in the questionnaire are directed to the research purpose through the categories of the conceptual framework” (Shields & Rangarajan, 2013, 77).” For example, there are three questions about housing (affordability, supply and social equity). The housing supply questionnaire item takes the following form, “Rate Housing Supply as a challenge for the City of Austin over the next ten years”.

For scoring the survey each respondent was ask to first rate each challenge from (1) no challenge to (10) extremely challenging. This scoring allowed for the rating of of each category and then the ability to rate the categories as a group. Individual ratings are as follows: 1-3= Low, 4-7=Medium and 8-10=High. Each respondent was ask in the end to choose, in their opinions, the top 3 challenges for Austin.

Table 3.1

Descriptive Categories Operationalization Table

Title: Austin 2027

Purpose: The purpose of this research is to describe the attitudes and opinions of professional administrators about the challenges of future growth of Austin Texas over the next ten years.

Category	Questionnaire Item
1) Housing	
a) Affordability	1. Rate housing affordability as a challenge facing Austin over the next 10 years.*
b) Supply	2. Rate Housing Supply as a challenge for the City of Austin over the next 10 years. *
c) Housing Social Equity	3. Rate the challenges of the City of Austin's ability to meet the Housing Needs of its diverse population over the next 10 years.*
2) Transportation	
a) Accessibility	4. Rate the challenges for the City of Austin to meet it Transportation Infrastructure over the next 10 years.*
b) Congestion	5. Rate the challenges of Traffic Congestion Management for the City of Austin over the next 10 years.*
c) Transportation Social Equity	6. Rate the challenge of meeting the Public Transportation Needs of a diverse population for the City of Austin over the next 10 years.*
3) Environmental Impacts	
a) Sustainability	7. Rate Sustainable Energy Planning as a challenge for the City of Austin over the next 10 years.*
b) Water Availability	8. Rate Water Availability/Supply as a challenge for the City of Austin over the next 10 years.*
c) Environmental Social Equity	9. Rate the challenge of meeting Sustainable Infrastructure Planning for the City of Austin over the next 10 years. *

4) Demographics	
a. Age	10. <input type="checkbox"/> 20 -30 <input type="checkbox"/> 31-45 <input type="checkbox"/> 46-65 <input type="checkbox"/> 65+
b. Gender	11. <input type="checkbox"/> Female <input type="checkbox"/> Male
c. Race	12. <input type="checkbox"/> Asian <input type="checkbox"/> African American <input type="checkbox"/> Hispanic <input type="checkbox"/> White <input type="checkbox"/> Other
d. Educational Status	Current MPA Student _____ MPA Alumni _____

***Indicates a Likert Scale of 1 Less Challenging to 10 Extremely Challenging**

Although not part of the descriptive framework, a demographic category was added. This category provides information on the respondent such as age, gender, race/ethnicity, background and student/alumni status.

Research Technique

The research technique used for this study is the survey method. The survey method was chosen because it provides a way to gather data from a large group of people in a cost-effective way (Johnson, 2014).² Babbie (1995) also recommends survey research method to measure “attitudes and orientation in a large population” (Babbie, 1995, 257), which falls directly under the purpose of this research. The survey method allows the researcher to ask many questions about a variety of

² Credit is extended to Justin William Marlin for his ARP titled “Bicycle Transportation Issues: Describing the Attitudes and Opinion of Cyclist in Austin Texas. His ARP was an excellent model in the completion of this ARP. (Marlin, 2008)

topics. Being that the survey is anonymous there is little pressure on respondents, and it is hoped that they will answer in a more candid fashion. The web-based survey was chosen as the modality for this research. Griffin (2014) writes, “web surveys are relatively inexpensive once set up. There are several advantages, data collection time is shortened, responses are recorded instantly, and web based surveys are less intrusive” (Griffith, 2014).

While surveys are good for this type of research it should be noted that they also have their weaknesses. Since the survey is distributed via email the response rate may be weak. The effectiveness of the survey may be weaker because a response rate cannot be guaranteed. It is often expected that survey participants are more likely to complete a survey if the topic is of special interest to them. The fact that this survey was of MPA graduates and current students who have and will be completing the same assignment for their own studies lends to a hope that the response rate will be slightly higher than average. This survey was carefully created under the supervision of Dr. Patricia Shields who was extremely helpful in avoiding misleading and or loaded questions for a better quality survey. In addition to the Likert survey questions participants were asked to identify the three most challenging items in their opinion. They were not asked to rank these items. Also included was the request that if they had any suggestions as to their opinion as to what the City of Austin could do to improve on these items to please give a

brief statement. Finally it was asked if there was anything of concern to them that was left off of the survey.

Survey Distribution

Survey participants for this sampling were chosen from Texas State University because of a consistent educational background and because many graduates are involved in public administration in the Austin metro area. The survey included a brief statement of purpose and was distributed to the alumni and current students of the Texas State University Masters of Public Administration program. The Qualtrics survey tool was used to collect the data and results of the survey via email and the internet. After the initial request for participation email two reminders were sent out in the following weeks giving those that had not yet participated the opportunity.

Sample

There are approximately 600 Master of Public Administration graduates and current students. All students and alumni on the MPA program data base were contacted. Hence this study uses the population and is not a sample. The data base is not a complete list of alumni because many alumni have changed email addresses after graduation.

Statistics

Descriptive statistics is used to analyze the survey data for this research. These descriptive statistics allow for large amount of data to be compiled into more manageable information.

Human Subject Protections

The Institutional Review Board at Texas State University reviewed this Applied Research Project and declared it exempt for these research purposes. To ensure anonymity there was no personal identifying information included in the survey and no identity could be extrapolated from the survey results. This anonymity ensures that all participants may feel free to express their own opinions and attitudes in the survey. In advance of taking the survey all participants were notified that the survey was voluntary and that of they felt uncomfortable they were free to stop at any time. The Texas State IRB approval is located in Appendix B.

The following chapter examines the results of the survey revealing the attitudes and opinions of professional administrators about the challenges faced by the City of Austin in the next ten years.

¹ Credit is extended to Justin William Marlin for his ARP titled "Bicycle Transportation Issues: Describing the Attitudes and Opinion of Cyclist in Austin Texas. His ARP was an excellent model in the completion of this ARP. (Marlin, 2008)

Chapter Four: Results

Chapter Purpose

The purpose of this chapter is to present and analyze the results of the Austin 2027 survey issued to public administration professionals who were or are students of the Masters of Public Administration program at Texas State University in San Marcos. These data address the research purpose of describing the attitudes and opinions of public administration professionals regarding the challenges that Austin will face over the next ten years.

Respondent Information

Responses were solicited from current students and alumni of the MPA program at Texas State University. Their email contact information was obtained through the MPA department and the survey distributed through Qualtrics for the alumni and from MPA administrative assistant Dodie Wiedner for the current students. The email addresses were all that was used and there is no identifiable information from the respondents. There were 92 surveys distributed to alumni and 90 surveys distributed to current students for a total of 182 distributed surveys. There were 43 completed surveys for a response rate of 23.6%. Since the survey was distributed in a blind method there is no demographic data available for those

surveyed. The demographic data for those that participated in the survey are as follows. The educational level breakdown was 12 (27.9%) current students' respondents and 31 (72.1%) alumni. Women completing the survey were 26 (60.5%) and men were 17 (39.5%). The age of respondents demographics were 20-30=7 (16.3%), 31-45=28 (65.1%), 46-65=7 (16.1%) and 65+=1 (2.2%). The racial/ethnic makeup of the respondents were Asian 3 (7.0%), African American 3 (7.0%), Hispanic 12 (28.0%) and White 25 (58.1%).

The literature review was used to establish the conceptual framework for which the survey was created from. This conceptual framework will be used to report the findings of the surveys.

Housing

Affordability

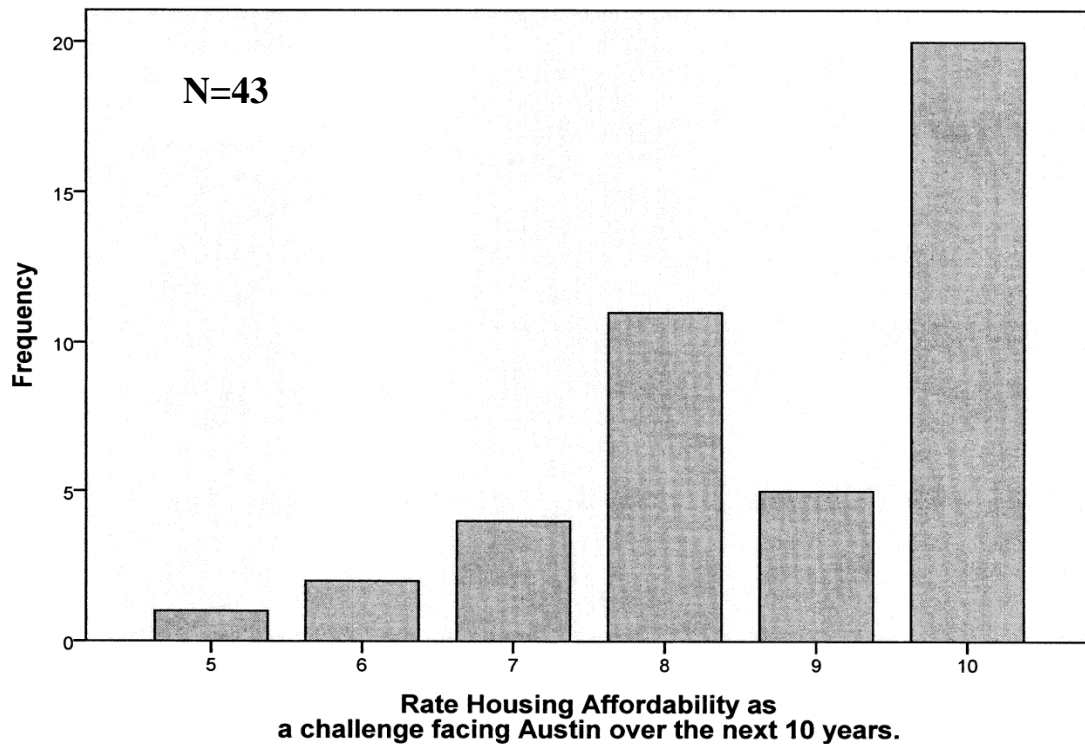
Housing affordability came in as the number one challenge at 86.05% when participants were asked to rate the nine challenges (see Figure 4.12). The overwhelming majority of respondents rated housing affordability (83.7 %) as "highly challenging" for the City of Austin over the next ten years while only 16.3% rate it as a "moderate challenge" and no participants rated it as a "low challenge". 46.5% of participants actually rated housing affordability as an "extreme challenge" (see Figure 4.1). While this challenge was the highest rated it

was also the most commented on when participants were asked. Some of the more useful comments are:

1. “Housing affordability could be addressed by increasing densities...” “More housing choices.”
2. “Change codes to require diversity of units and infrastructure...”
3. “Enter into more private/public partnerships for affordable housing.”
4. “Until there is a housing surplus we will continue to see the prices increase faster.”

These results and comments reflect the fact that affordability is already a major conversation in Austin. Considering that this was rated as the number one challenge in Austin it would appear that public administration professionals have the opinion and attitude that this should be the number one focus for Austin over the next ten years.

Figure 4.1

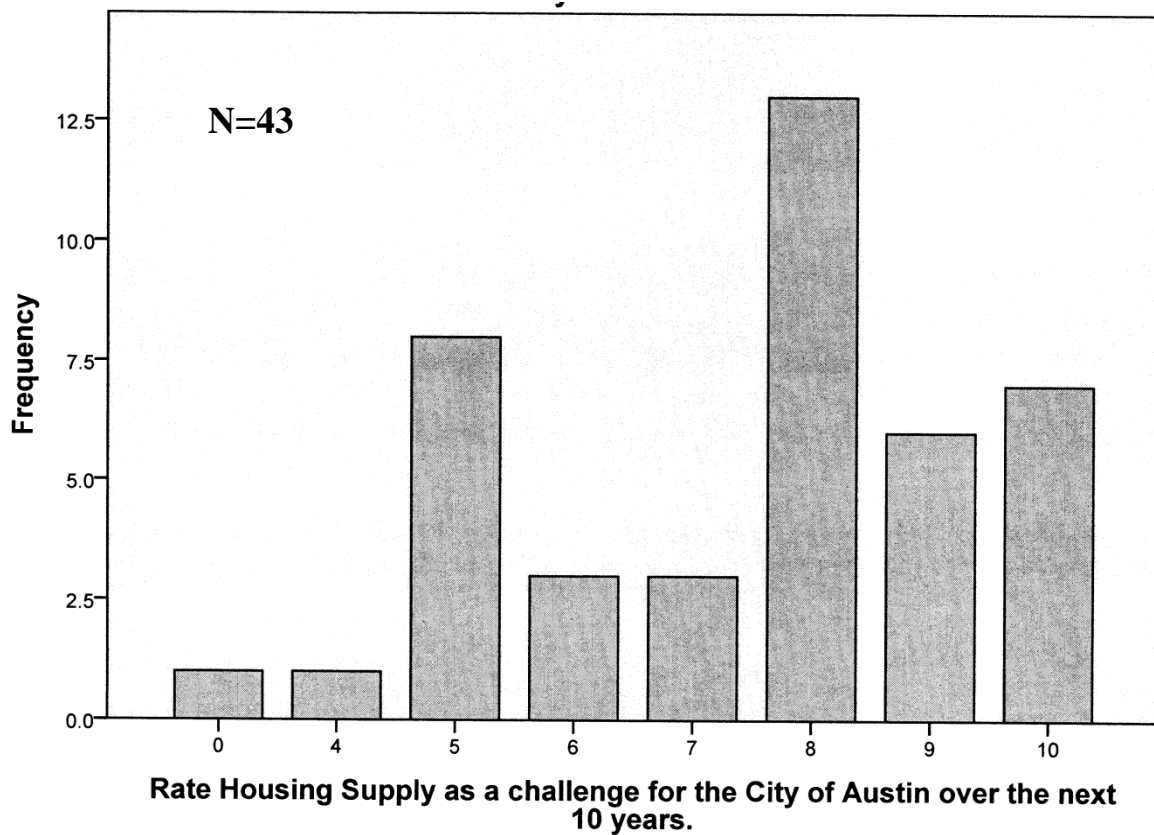


Supply

While housing affordability was the number one challenge it was a surprise that housing supply was rated significantly lower at only 18.6% (see Figure 4.1) since there can be found in the literature a correlation between the two. However within the housing supply question the challenge was rated high at 62.0% and moderate at 33.2% and low at 4.8% (see Figure 4.2). These ratings reflect that while housing supply is seen as a high challenge in itself it is not considered to be a challenge when compared to other challenges. The comments for housing supply were:

1. “Not enough starter homes.” “The City of Austin should create a first time buyers program.”
2. “Zoning limits on density and uses hinder the development of increased housing supplies.”
3. “Build more single family communities.”
4. “Not sure how the city will sustain the supply while properly planning for the growth.”

Figure 4.3

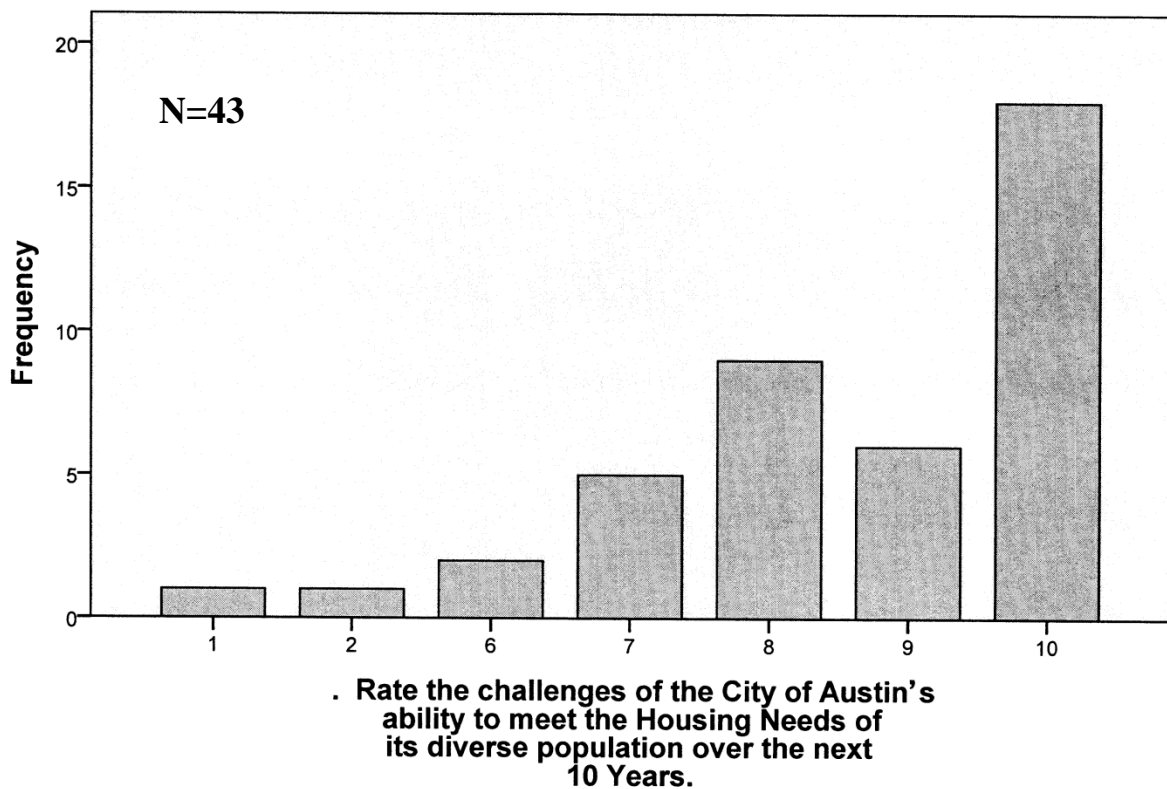


Needs

Housing needs for its diverse population had the lowest rating for in the survey at only 6.98% (see Figure 4.10) and the lowest rating for the housing category. Within the housing needs question though 78.6% felt it was a high challenge 16.7% rated it as a moderate challenge and 4.8% rated it as a low challenge. (see Figure 4.4) The only comments given for housing needs was:

1. “build more”

Figure 4.4



Housing Summary

In the literature review it was shown that a lack of supply could be linked to issues with housing affordability and the needs diverse populations. While affordability is the key challenge identified here it can be said that meeting the needs of a diverse population can be linked to the affordability challenge. It can also be recognized that having an adequate housing supply will also affect housing affordability by having more housing units available for the market. This will also drive down the affordability cost of housing supplying more housing available for a diverse population. So while all three questions in the housing portion of the framework are linked it should be noted that many people are most concerned by what affects them financially.

Transportation

Transportation Needs

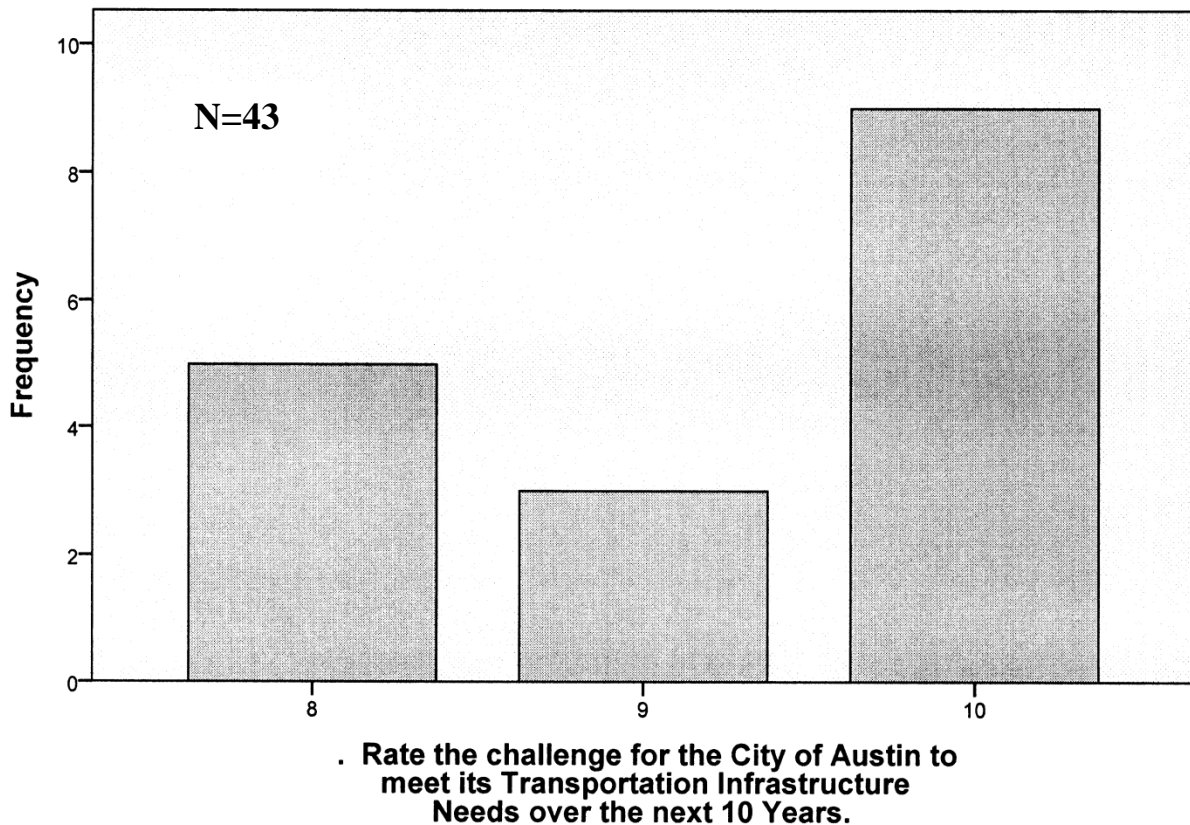
Transportation was found, in the opinions of public administration professionals surveyed here to be the number one overall challenge for the City of Austin at 64% (see Figure 4.12). Transportation needs are relative to the infrastructure needed to meet the challenges over the next ten years. These needs ranked second in the transportation framework at 28.1%. Within the question for transportation needs all 18 of the ratings were found to be in the high category

(100%). Of these ratings 39% were rated extremely challenging. (see Figure 4.5) Whereas transportation is rated to be a high challenge the infrastructure needs of the future are not the highest challenge. Participant comments for this category were as follows:

1. "Expand rail service."
2. "Comprehensive rail."
3. "Austin, I believe, is not doing enough to get cars/busses off the streets. One or two trains running on ne track is not enough."
4. "Stop converting car lanes to bus/bike lanes."
5. "Austin has its head in the sand when it comes to transportation infrastructure. It seems to have a refusal to build any additional roads but keeps pushing bikes and rail, even after the voters refuse it time after time. Austin is still using the same roads that it had when it was half its size."

It can be seen in the comments that the public administration professionals surveyed here are strong believers in Austin adding more rails to its infrastructure. And while the literature supported more mass transit such as rail the voters of the City of Austin have voted against rail numerous times. The only existing rail Austin has now was placed on existing tracks which minimized the cost and interruption to other modes of transportation.

Figure 4.5



Traffic Congestion Management

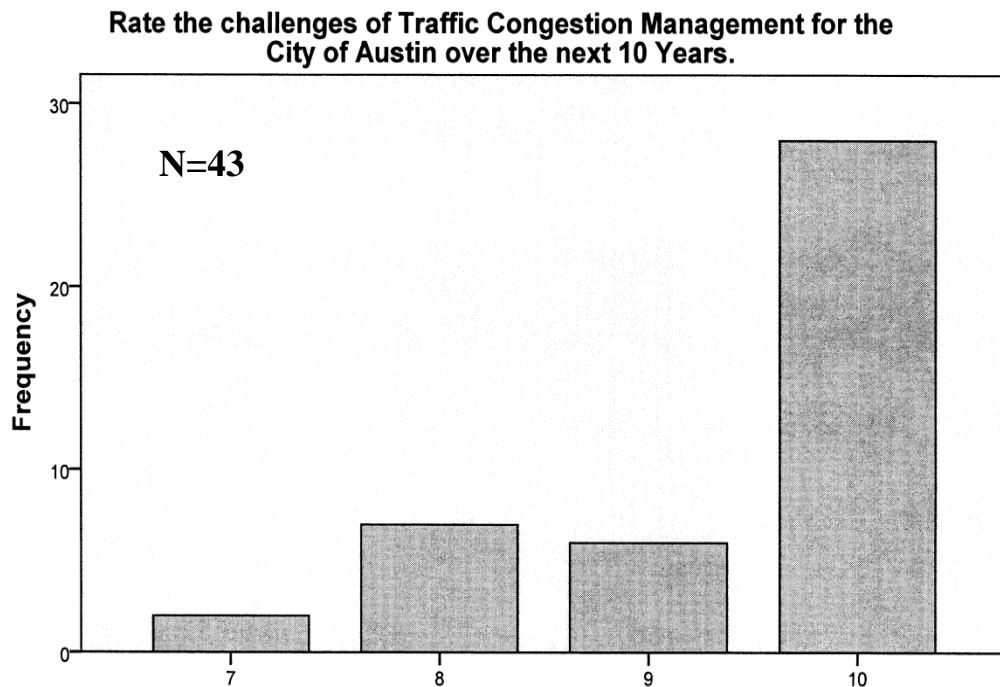
Traffic congestion management was the highest rated challenge out of the transportation framework and was only second to housing affordability in the overall survey at 76.74% (see Figure 4.12). Within the question 95.3% rated the challenge as high, 4.7% rated the challenge as moderate and no one rated the challenge as low. Sixty-five-point one percent found that congestion management was of the extreme rating (see Figure 4.6). This was the highest extreme rating in the entire survey. This fact lends weight and supports the complaints and comments

that those who live in the Austin Metro area have been voicing for many years. Traffic congestion has been and will continue to be one of the top challenges for Austin for some time to come. Comments for this category were as follows:

1. “The city needs high number teams of people that can make necessary changes to roads/structures quickly and during off hours.”
2. “Build more lanes on the highway.”
3. “The city needs to work regionally to solve congestion caused by the influx of Austin workers to the suburbs, flex hours should be considered.”
4. “Invest in more robust and inclusive mass transit.”
5. “I’d like to see a study done on freeway removal similar to what was happened with the Embarcadero Freeway (San Francisco), Harbor Drive (Portland) and the proposed (Dallas) I-345.”
6. ‘Build the proposed Regional Transportation Operations Center (RTOC) to manage traffic flow regionally and use technology to improve traffic management.’”

As can be seen through the comments this challenge is all over the board. From rail to removing highways, from employer plans to hiring more city workers there are many good suggestions from participants on this challenge. It is clear by both the literature and the feedback given here that the planning for congestion management is not simple and should include many methods.

Figure 4.6

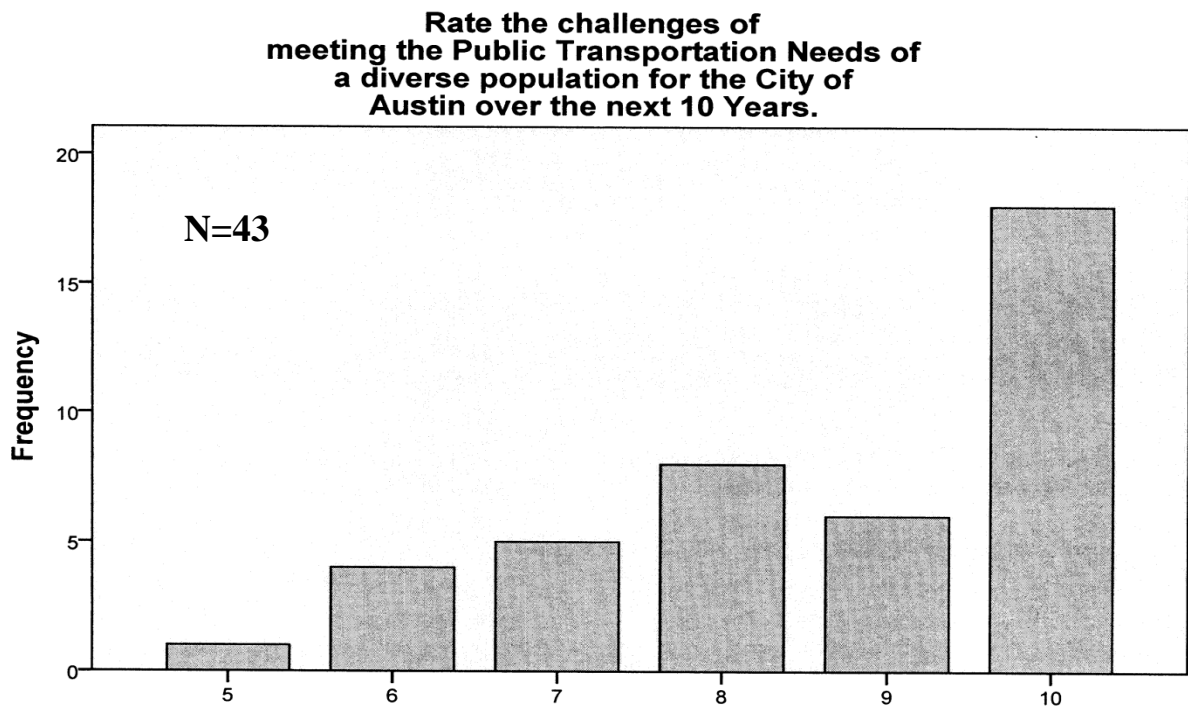


Public Transportation Needs

Public transportation needs was rated last within the transportation category by participants. For the overall survey public transportation was ranked at 30.23% (see Figure 4.12). Within the question the ranking were similar to other transportation questions, 76.2% rated it high and 23.8% rated it as a moderate challenge. No participant rated it as a low challenge. It is also noted that 42.9% of participants rated public transportation needs as extremely high (see Figure 4.7). Comments for this category were as follows:

1. “Rail system needs to be increased and made available at all times of the day.”
2. “Efficient and reliable movement of people and resources will decongest a crowded and growing city.”
3. “Austin needs a clear cut vision for transportation that incorporates public transportation and reinvents how our transit option are re-imagined.”
4. “City officials and planners are going to have to improve access to mass public transportation to help alleviate the ever increasing population.”

Figure 4.7



Transportation Summary

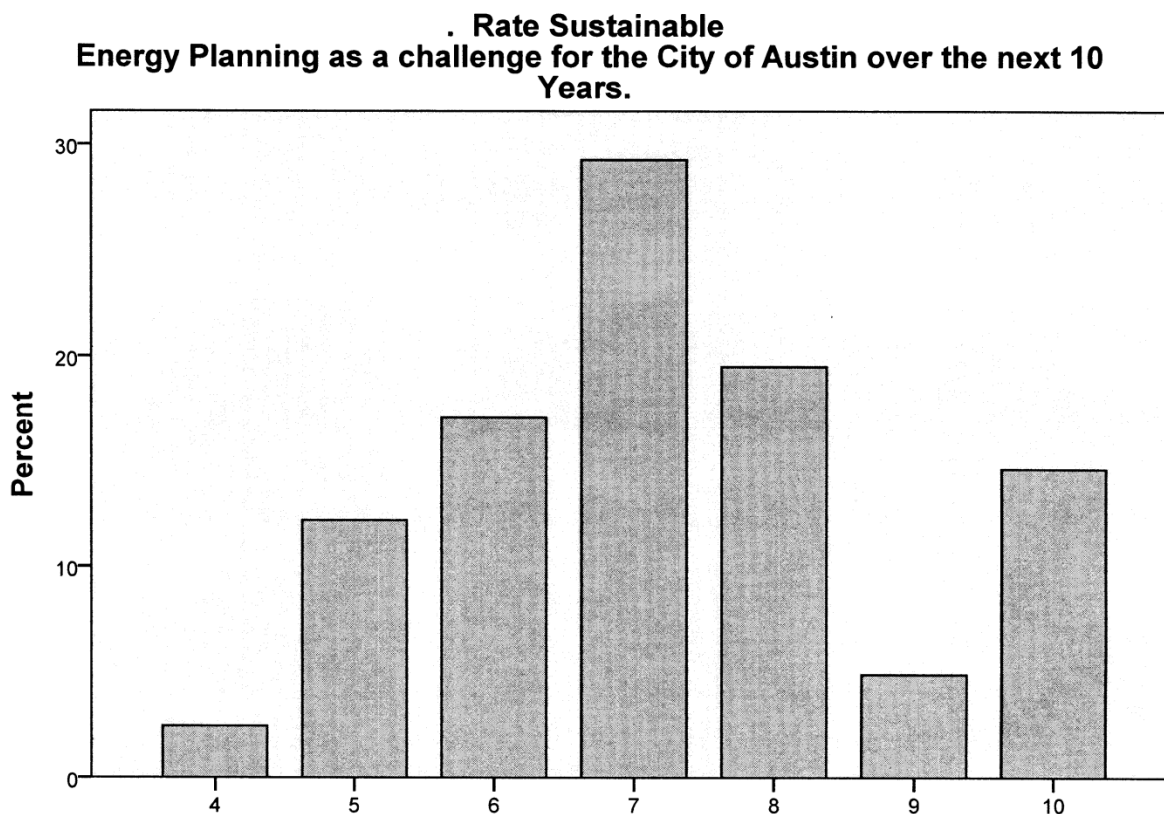
The transportation category was rated as the highest challenge facing the City of Austin over the next ten years. While traffic congestion was rated the highest, all of the transportation challenges were rated high. What is most notable in the transportation section of the framework was how the three challenges overlapped with each other. While they address separate issues through the comments of the participants it is demonstrated how it is the opinions of the public administration professionals that transportation is an all encompassing challenge with many similar possible solutions. The single topic that stood out the most was the need for additional rail in Austin. With this information, even though rail has been voted down many times, it is clear that the City of Austin needs to come up with a comprehensive solution, that includes rail and develop a plan that the Austin voters will support.

Environmental Impacts

Sustainable Energy Planning

Question 7 regarding sustainable energy planning came in last in the rating survey. In fact it had zero votes. Within the question there was even more answers away from the trends of the rest of the survey. Only 39% of respondents rated sustainable energy as a high challenge, 61% found it to be a moderate challenge

and 2.4% found it to be a low challenge (see Figure 4.8). This was the only survey question where it was not considered to be a high challenge. In the chart from the Rivard Report (Nickas, 2016) perhaps it can be seen that the steady rise in clean energy for the state of Texas and the successes that the City of Austin has had with



converting to clean energy that respondents felt that Austin is well on its way to sustainable clean energy (Figure 4.9). There were no comments for this question.

Figure 4.8

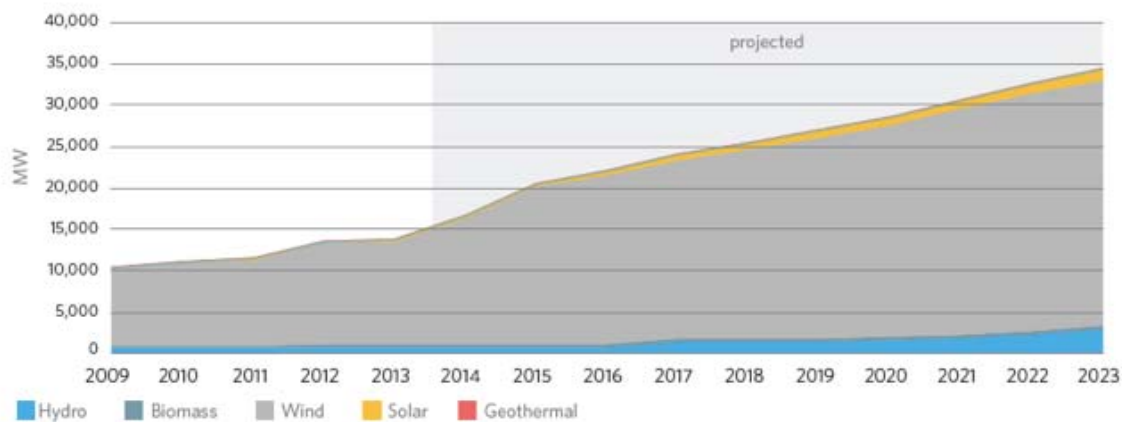
N=43

Figure 4.9

Snapshot: Texas' clean energy economy

Clean Energy Capacity, by Sector and Year

Actual (2009-13) and projected (2014-23) growth in cumulative capacity



Rivard Report

Water Availability/Supply

Water and its availability and supply is an environmental question that is on the minds of any person that has lived in the area for a few years. From a 5 years record drought from 2004 to 2009 and then a switch since 2015 of record rainfall years, water is talked about a lot in the Austin area, in fact across the whole state of Texas. Respondents rated water as only the second most important challenge in environmental impacts and tied for sixth place at 18.6% as an overall challenge (see Figure 4.12). Within the question 56.1% found water to be a high challenge,

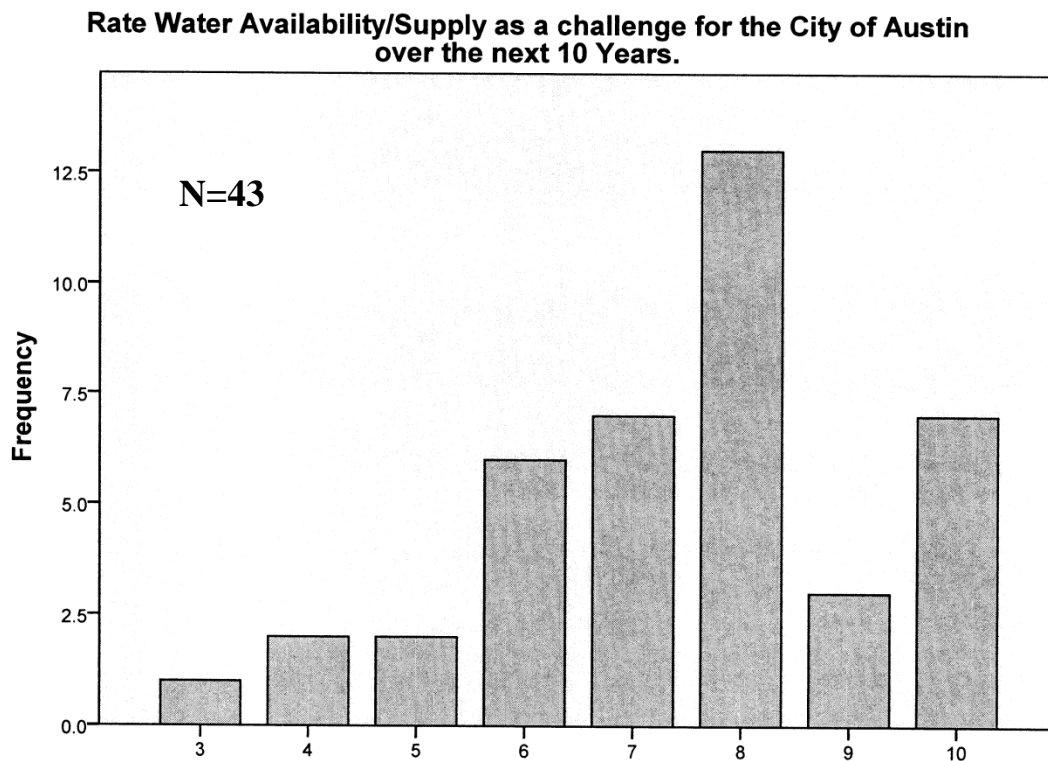
36.6% rated it as a moderate challenge and 7.3% found it to be a low challenge.

Only 17% found water to be extremely challenging.

(see Figure 4.10) Comments for this question are as follows:

1. “City seems to do a good job with public awareness about water management.”
2. “The current funding model is not sustainable. When you reduce water usage, which you need to do, you lower the funding to support infrastructure.”
3. “Water is an issue for all citizens.”
4. “This is the number one long term issue for all of central Texas.”

Figure 4.10

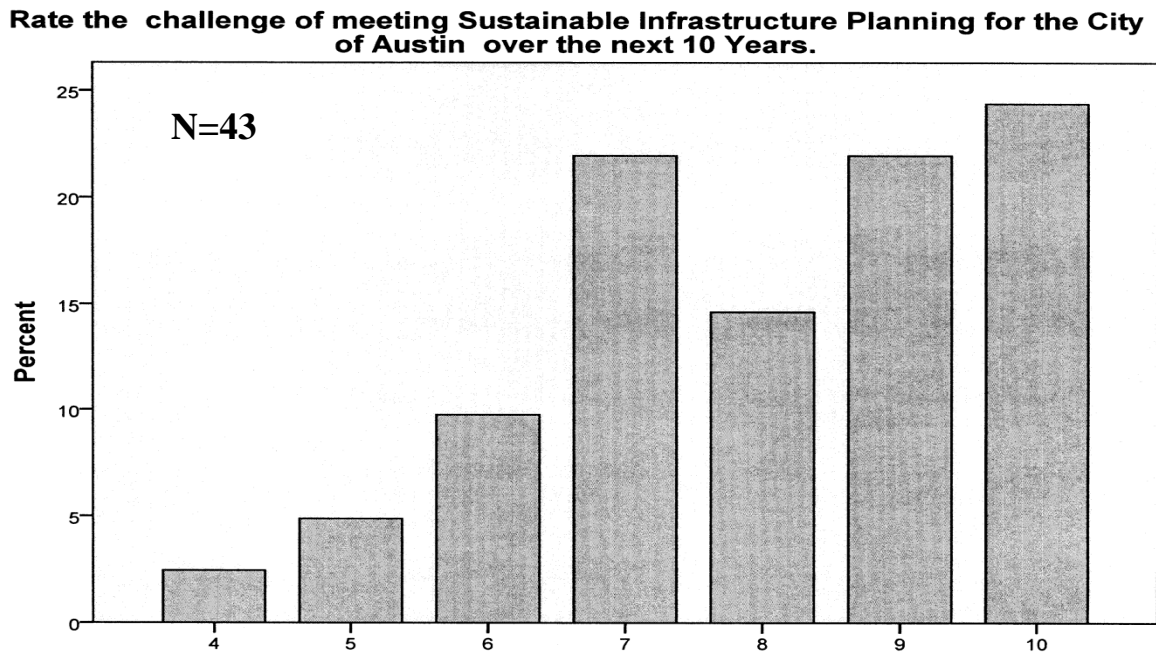


Socioeconomic Equity/Sustainable

Sustainable infrastructure planning was the number one challenge in the environmental impacts category of the survey at 23.26%. (see Figure 4.12). Within the question 61% of respondents found it to be a high challenge, 36.7% ranked it as a moderate challenge and 2.4% ranked it as a low challenge. (see Figure 4.11). Twenty-four-point four percent found sustainable infrastructure planning to be an extreme challenge for the City of Austin. Comments for the questions are as follows:

1. 'It's better when we all win.'
2. "If the current trend of Austin becoming more expensive (per capita) continues, and the availability of land decreases within the city limits—Austin needs to consider how green/sustainable infrastructure can be built into the various systems used widely Austin residents, with an eye towards lower income/disenfranchised citizens. Investments in creating a wide range of affordable housing that tie in public transportation, healthy community living, and greenways/blueways that provide a wider range of accessibility while addressing city infrastructures issues."

Figure 4.11



Environmental Impacts Summary

Environmental impacts were rated by the respondents to be the lowest challenging category for the City of Austin at only 18.6%. (see Figure 4.12) While all of the categories were singly considered to be moderate to high challenges environmental impacts as a whole was not. Again, according to the literature in the review the categories of Energy, water and sustainable infrastructure all are connected to the affordability question. In this survey public administration professional, while finding some concerns within the City of Austin, did have the

opinions that Austin was doing a better job with environmental impacts compared to transportation and housing.

Overall Challenges

Participants were asked to identify the top three out of nine potential challenges that were in their opinion facing the City of Austin in the next ten years.

These nine potential challenges were developed in the conceptual framework. The literature review identified Housing Transportation and Environmental Impacts as lead challenges for growing urban cities. The respondents identified transportation as the lead challenge at 49.6% followed by housing at 38% and environmental impacts was third at 13.9%. There were three potential challenges for each of the three categories. The results of this were: In Housing, housing affordability 86.05%, housing supply 18.60% and housing needs 6.98%; in Transportation, transportation congestion management 76.74%, transportation needs 41.86% and public transportation needs 30.23%; in environmental impact, sustainable infrastructure for low income citizens 23.26%, water availability/supply 18.60% and sustainable energy 0%. (see Figure 4.12)

Table 4.12

Top three challenges in order of selection.

1. Housing Affordability	86.5%
2. Transportation Congestion Management	76.74%
3. Transportation Needs	41.86%
4. Public Transportation Needs	30.23%
5. Sustainable Infrastructure Planning	23.26%
6. Water Availability/Sustainability	18.60%
7. Housing Supply	18.60%
8. Housing Needs	6.98%
9. Sustainable Energy	0.00%

What was left out?

When asked if we left anything off of this survey there were only a few comments but they seemed to focus on employment and education, especially for the tech industry, which as of late has become the major industry in the Austin area.

The comments are as follows:

1. "I would say that there seems to be a lack of employers willing to support telecommuting/working from home. If more employers allowed this, I feel quality of life for Austinites would improve vastly."
2. "Austin lacks a diverse job market and diversity. It needs to attract and retain more major industries just beyond government and tech. Expanding and investing beyond those industries could help Austin attract diverse talent? For example, most African Americans who study in the Austin/San Marcos area leave after graduation, taking their knowledge and talents elsewhere. This is a brain drain the City of Austin researched almost a decade ago, but little was done to attract and retain diverse talent. In order to compete with other cities like Houston, Dallas and San Antonio, Austin has to make itself attractive to ethnically and diverse populations. All of these cities are competing for talent for Fortune 500 companies, major healthcare centers, tech and emerging industries. These cities also go out of their way to tout themselves as welcoming ethnically and culturally diverse communities."
3. "Establishing better relationships with counties and cities along the I35 corridor to work to solve problems regionally. Many of Austin's issues have a symbolic effect on suburban communities outside of the city limits. Thus, it is critical that they work together to devise solutions that benefit the citizens of each community."
4. "The need for an education pipeline to produce high tech workers from within the current students. Elementary, junior high, high schools to technical training or colleges. Companies need to provide internships and incentives for local opportunities."

Chapter Summary

This chapter displayed the results of the survey according to the categories that comprised the conceptual framework. The categories reveal the respondents' attitudes and opinions about challenges of housing, transportation and environmental impacts facing the City of Austin over the next ten years. Respondents were firm when considering what was their opinion and attitude

regarding the categories with strong feelings about transportation and what Austin needs to fix. When considering that all of the housing and transportation categories were rate as highly challenging one can almost read the sense that public administration professionals have little or no faith in the city leadership to address the challenges Austin faces. In both transportation and housing there was a constant call in the comments for more: more housing, more roads, more mass transit. Respondents seemed somewhat more pleased with the city's efforts when it came to environmental impacts.

Chapter 5: Conclusion

Chapter Purpose

The final chapter provides a summary of research findings in relation to the challenges facing the City of Austin over the next ten years. Public administration professionals were asked to express their attitudes and opinions regarding these challenges which were identified in the literature review. These findings are based upon the survey of these professionals. The chapter ends with some brief recommendations to address these challenges.

Research Summary

The purpose of this research was to describe the attitudes and opinions of public administration professionals regarding the challenges that the city of Austin will face over the next ten years. Reports from Leadership Austin Conversation Corp (Austin L. , 2015), based on a survey of Austin residents and the Imagine Austin Comprehensive Plan (Austin, 2015) revealed citizen perspectives on the current challenges facing Austin were used to guide the literature review in revealing what challenges growing urban cities faced. The literature review reflected that the greatest challenges growing urban cities faced were in housing, transportation and environmental impacts. The literature then pointed to many sub-categories facing these cities. They were affordability,

supply, social equity, congestion, infrastructure, public transportation, renewable energy, water and sustainable infrastructure. The nine major questions were centered on these sub-categories. Respondents were then asked to rate the top three challenges, in their opinions. The survey was organized from the conceptual framework and descriptive categories asking professional public administrators their attitudes and opinions regarding these challenges facing the City of Austin over the next ten years.

Respondents rated housing as the second most challenging of the three main categories and all three sub-categories were rated as extremely challenging for the City of Austin. The comments left by respondents pointed to many of the same challenges other cities faced reflected in the literature review. Lack of supply, the need for density and making challenges to the housing codes are topics that are not only in the literature but were also considered by the survey respondents. Respondents overwhelmingly rated the three housing sub-categories as extremely challenging for the City of Austin in the next ten years.

Transportation was the highest rated challenge for the City of Austin by the respondents and all three sub-categories were rated as extremely challenging for the City of Austin over the next ten years. The literature discussed the need for infrastructure and building new infrastructure to meet the growth of cities and the respondents responded with the same opinions. Not only was this the most

challenging category but respondents expressed the need to build more. Build more roads, build more rail and build better mass transit. Within the respondent's comments was also a lack of faith that the City of Austin was up to this challenge. In fact some of the practices that are now being utilized were called into question.

Category three, environmental impacts was rated third by the respondents. The sub-categories of this category, renewable energy, water and sustainable development are all topics that the City of Austin has been focused on for a number of years, even before the growth that it is experiencing now. Though respondents rated these categories as moderate to extreme it can be taken from comments that respondents felt that the city was working in the right direction toward these challenges. There was still a feeling that work needed to be done but it was a far better sentiment than the two previous categories.

There were a few surprises from the survey especially understanding the political leanings of the city. Two of the three sub-categories regarding social equity were last place in the ratings of importance of each category. Housing needs for a diverse population was rated extremely low in the housing category. Considering that affordability rated to high one would have thought that the needs of a diverse population would have rated higher. Also, public transportation was rated as the least important sub-category in the transportation category of the survey. Both of these sub-categories refer to social equity and it would appear

from the survey that social equity is either not a challenge or is not considered important to the respondents of this survey.

Recommendations

Austin is reportedly growing now at 150 people per day. This kind of growth can bring with it many challenges only a few of which were studied here. One of the problems that Austin faces is in all of the disagreement of what direction is best suited for Austin to meet its challenges. This division in the city is often politically motivated and challenged by the many subgroups of Austin special interest. While it can be said that all of these groups are looking after what they feel is the most important thing, and none of these groups are trying to do harm the truth of the matter is that in order for the City of Austin to meet these challenges there must in some way be a consensus formed. There were many good recommendations from the professional public administrators given here in this survey and the city needs to identify its priorities. When stepping looking at the literature review and this survey, and the results of the survey it can be found that there is a connection between all three of the categories and a domino effect can be extrapolated. For Austin the affordability challenge caused the migration of the citizens out into the more affordable suburbs. This was also found in the literature. When this happened everyone did not move their jobs to the suburbs, they began to commute in from the suburbs to their jobs in the core of the city adding to the

traffic congestion we have now. Austin has time and time again voted against adding rail, and perhaps some of these rail projects were not the best for the city. Austin has to find a way to bring every possibility to the table when addressing its challenges, not just those of the ruling class. Austin was just named the best city in America to live in by Forbes magazine if it wants to keep growing Austin needs to create a better plan for the future.

Recommendations for the City of Austin to meet the challenges over the next ten years are:

1. The city must streamline the building process so that new construction can happen at a faster pace. Added inventory can lead to improved affordability for home buyers and renters. Improvements in affordability can help to eliminate some of the traffic issues. This will also help address the housing supply issue. This also ties in with the need for sustainable infrastructure for our low income citizens;
2. Build roads and increase road sizes on Austin's main corridors for commuting to and from work. Austin has not completed a major highway project in over 20 years. Austin feels anti road. While every mode of transportation should be utilized Austin must discontinue the fight against roads just for the sake of being against roads. Rail and

improved mass transit needs to be expanded to where the citizens are commuting from and;

3. Austin needs to consider the result that the focus on density has delivered. Density is smart but it has driven land values in the core of the city. It is no longer affordable for those that build Austin to live in Austin. The city must be willing to look at building further out from the city core where land is more affordable and then create urban villages with housing, retail, schools and jobs. Austin can then develop improved mass transit to these outlying areas so that our middle and lower income citizens have opportunities across the city.

As was mentioned in the conclusion there is a correlation between many of the challenges that Austin will face over the next ten years. So then there should be a correlation in the approach to meeting the challenges Austin faces.

Addressing one challenge can lead to not only meeting that challenge but will lead to meeting another separate challenge.

Future Research

This research and survey have barely even scratched the surface to have begun identifying the challenges that Austin faces over the next ten years.

Surveying professional public administrators is important since we have spent

years training and working in the field. It is also now important to survey the people for who we serve and compare their attitudes and opinions about the challenges for the next ten years. Also further research could be extended into the Austin Metro area since much of what Austin does effects our surrounding neighbors. Further research could also be conducted to narrow down the decision making process in Austin and whether it is fitting for a city of its size now. Research on the local level does not seem to be a focus for many but it is at the local level where the decisions made by government and public administrators most touches the people they serve.

Appendix A

Survey Sample

Austin 2027

Questionnaire/Survey

1. Rate **Housing Affordability** as a challenge facing Austin over the next 10 years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

2. Rate **Housing Supply** as a challenge for the City of Austin over the next 10 years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

3. Rate the challenges of the City of Austin's ability to meet the **Housing Needs** of its **diverse population** over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

4. Rate the challenge for the City of Austin to meet its **Transportation Infrastructure Needs** over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

5. Rate the challenges of **Traffic Congestion Management** for the City of Austin over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

6. Rate the challenges of meeting the **Public Transportation Needs** of a **diverse population** for the City of Austin over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge				Moderate Challenge				Extremely Challenging		

7. Rate **Sustainable Energy Planning** as a challenge for the City of Austin over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge			Moderate Challenge				Extremely Challenging			

8. Rate **Water Availability/Supply** as a challenge for the City of Austin over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge			Moderate Challenge				Extremely Challenging			

9. Rate the challenge of meeting **Sustainable Infrastructure Planning** for the City of Austin over the next 10 Years.

0	1	2	3	4	5	6	7	8	9	10
No Challenge			Moderate Challenge				Extremely Challenging			

Please check the top three challenges facing the City of Austin over the next 10 years.

1. Housing Affordability
2. Housing Supply
3. Housing Needs
4. Transportation Needs
5. Transportation Congestion Management
6. Public Transportation Needs
7. Sustainable Energy
8. Water Availability\ Supply
9. Sustainable Infrastructure for Low Income Citizens

Of these top three challenges mentioned above please suggest ways the City of Austin could address each of them. (This is not a ranking) Ex. Challenge.....comments.

1. _____
2. _____
3. _____

Were there any challenges for the City of Austin omitted from this list?_____

Gender	__Female	__Male			
Age	__20-30	__31-5	__46-65	__65+	
Education	__MPA Alumni	__Current MPA Student			
Race/Ethnicity	__Asian	__African America	__Hispanic	__White	__Other

Appendix B



In future correspondence please refer to 2017487

February 22, 2017

Christopher Hoerster
Texas State University
601 University Drive.
San Marcos, TX 78666

Dear Mr. Hoerster:

Your IRB application 2017487 titled "Austin 2027," was reviewed and approved by the Texas State University IRB. It has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

1. In addition, the IRB found that you need to orient participants as follows: (1) signed informed consent is not required as participation will imply consent; (2) Provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data; (3) Appropriate safeguards are included to protect the rights and welfare of the subjects.

This project is therefore approved at the Exempt Review Level

2. Please note that the institution is not responsible for any actions regarding this protocol before approval. If you expand the project at a later date to use other instruments please re-apply. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office of Research Integrity and Compliance. Please report any changes to this approved protocol to this office.

Sincerely,

Monica Gonzales
IRB Regulatory Manager
Office of Research Integrity and Compliance

CC: Dr. Patricia Shields

OFFICE OF THE ASSOCIATE VICE PRESIDENT FOR RESEARCH

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This letter is an electronic communication from Texas State University-San Marcos, a member of The Texas State University System.

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