Jack Karisch
SOCI 313 Paper
12/19/15

Demographic Change in Austin, Texas Between 2000 and 2014

It seems that Austin, Texas has received a large amount of attention over the past few years. It is possible that living in Austin since my birth has influenced my exposure to and interest in this attention. For this reason, I wanted to take a closer and more objective look at the data behind the demographic changes that everyone is talking about. Some key questions that I wanted to examine and try to answer were: How many and what kind of people are moving to Austin, and what general areas are they moving to? What effects are these migration patterns having on income, race, and housing in and around the city? Given the recent trends, what do I think will happen in the near future of the city? To address these questions, as well as others related to them, I first examined whatever literature I could find on the subject. Because the demographic information needed to be as fresh as possible, the only useful literature I found was online.

As expected, the increased scrutiny on Austin in the past few years has led to a litany of articles and news reports on the changes to the city. One particularly relevant report from the Census Bureau (2015) dealt with city growth nationally. The report found that 5 of the 10 cities with the largest increase were in Texas, with Austin ranked fourth in terms of total numeric increase, despite its small size relative to the cities surrounding it on the list. Where Austin really stood out was in percentage of growth, as shown in Table 1 below, generated from the data accompanying the report. Austin ranked second in percentage growth rate for the 15 cities with the largest numeric increase in the year ended July 1, 2014 behind only Irvine, California, which is about 20% of the size of Austin. Clearly Austin's growth is not just relevant on the local scale. To get a closer look at how the city is changing, I turned to a press release from the City of Austin, written by City Demographer Ryan Robinson (N.d.). It highlighted ten major demographic trends, including: decrease in whites

City	State	Increase	Population	Percentage Increase
Irvine city	California	11,420	248,531	4.6
Austin city	Texas	$25,\!667$	912,791	2.8
Denver city	Colorado	15,461	663,862	2.3
Fort Worth city	Texas	18,183	812,238	2.2
Seattle city	Washington	14,938	668,342	2.2
Charlotte city	North Carolina	16,007	809,958	2.0
San Antonio city	Texas	24,931	1,436,697	1.7
Phoenix city	Arizona	24,616	1,537,058	1.6
Houston city	Texas	35,752	2,239,558	1.6
Dallas city	Texas	20,322	1,281,047	1.6
San Diego city	California	21,225	1,381,069	1.5
Columbus city	Ohio	12,421	835,957	1.5
San Jose city	California	11,964	1,015,785	1.2
Los Angeles city	California	30,924	3,928,864	0.8
New York city	New York	52,700	8,491,079	0.6

Table 1: Growth in Fastest-Growing American Cities

as percentage of population to less than half, fewer families with children in central Austin, increase in Hispanic and Asian population by percentage and decrease in black population by percentage, and greater Urban sprawl. The report indicates that each of these trends should continue in the following years. Among these trends, the plight of the black population of Austin inspired the most media attention. Solomon (2015) summed up the trend most succinctly: "For any number of reasons, black people in the Austin area are being pushed to live in the suburbs, while white residents are moving in to the city proper with alacrity." The article shows that property value in historically black East Austin has skyrocketed relative to the fast-growing areas surrounding Austin, like the City of Manor. Indeed, East Austin has experienced some of the most aggressive changes in the past decade. According to 2010 census data, the number of blacks and Hispanics there fell by 27% and 9.3% respectively, while the number of whites increased by 40% (Castillo 2011). Clearly, Austin is changing fast, and gentrification seems to be attracting the most attention, and there is a large number of reports on these recent trends. But to find some more comprehensive answers about longterm changes, I decided to go all the way back to the 2000 census, and compare that to 2014 ACS data for the Austin area.

All of the data used in this analysis was pulled directly from the Census Bureau website. The 2000 data came from decennial census summary files for the state of Texas. The basic population and housing statistics (population size, race, tenure, household size, age and sex) came from the 2000 Summary File 1 (SF1), and the rest (rent, property value, length of stay, citizenship status, educational attainment, median household income and industry) came from Summary File 3 (SF3). Many of these topics were only available as two-factor tables (e.g. sex by age), so similar elements had to be combined to find a onefactor result. The summary files were loaded into and manipulated using the R statistical computing program. The 2014 data was also pulled from the Census Bureau website, as 1-year estimate ACS summary files. For the most part the ACS files had the same tables as the 2000 census. However, the locations covered by the ACS were not as comprehensive as those covered by the 2000 census (for example, the census had block level data while the ACS did not even have every county), so the geographic analysis is at the county level, rather than at the tract level as I would have liked. There are six main regions covered: Austin City, which includes only the territory within the city limits; Travis County, which contains most of the city as well as some parts outside the city limits; Williamson County, which lies to the North and includes the cities of Round Rock and Georgetown; Bastrop County, which lies to the East and contains the town of Bastrop; Hays County, which lies to the Southwest and contains the town of San Marcos; and Round Rock City, which is in Williamson County and is the main other city in the area. The four counties mentioned above, together with Caldwell County, which unfortunately was not present in the ACS data, make up the Austin âAŞ Round Rock MSA. Caldwell County is the furthest removed and least populated county in the MSA, so its exclusion should not have a huge effect on the analysis. Looking at demographic and housing changes in the rest of the regions gives a general idea of the shift in Austin, with Williamson, Bastrop and Hays Counties acting as a proxy for the suburbs. Once all of the data was cleaned and formatted, I was ready to begin looking at the numbers.

First, at the highest level, the population size. Table 2 contains the population

numbers for each region. For reference, the percentage increase in the population of Texas was 29.3% over the same period. Every single region in the Austin area beat that number, with Hays and Williamson counties nearly doubling their population. It seems that the argument that people are moving to the suburbs is true. However, Bastrop County was the slowest growing region under consideration, indicating that people are moving north and southwest, but not East. To gain insight as to what kinds of people are moving, it helps to look at the age distribution. Figure 1 contains the age distribution for each county in 2000. Figure 2 has the age distributions in 2014. For each plot, the line tracks number of people and the age is measured on the x-axis, from 0 to 85. Austin City, Hays and Williamson all saw a slight increase in the middle-to-older part of the age line. Interestingly, Bastrop and Williamson have a valley in the 20-30 range, while Austin and Hays have a peak. This indicates that, while all the populations are aging, Central and Southwest Austin have a stronger young adult presence while East and North have more of a middle aged parent structure. After looking at population age and size, I turned to the characteristics of race and citizenship status.

Region	Population 2000	Population 2014	Percentage Increase
Bastrop County	57733	78069	35.224
Hays County	97589	185025	89.596
Travis County	812280	1151145	41.718
Williamson County	249967	489250	95.726
Austin City	656562	912798	39.027
Round Rock City	61136	112196	83.519

Table 2: Total Population

Table 3 shows the percentage increase in population by race between 2000 and 2014. As Solomon (2015) indicated, the black population in Austin City is on the wane; it only grew by 9%, versus growth of 60% in Williamson and 45% in Hays. The white population, on the other hand, increased by a large degree in every region, except Bastrop county (recall that the population increase of Texas during these years was about 29%, for comparison). The small Asian population has exploded, and the Hispanic population, like the white one,

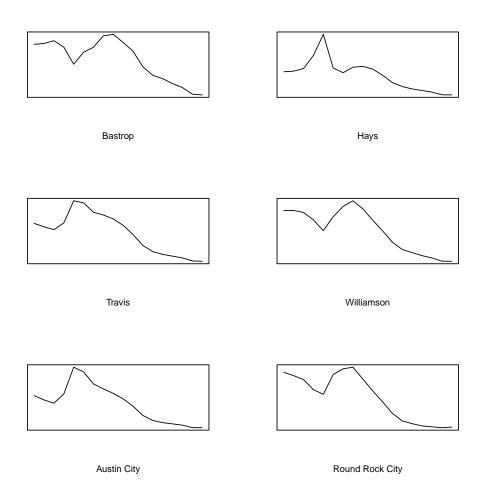


Figure 1: Age Distribution in 2000

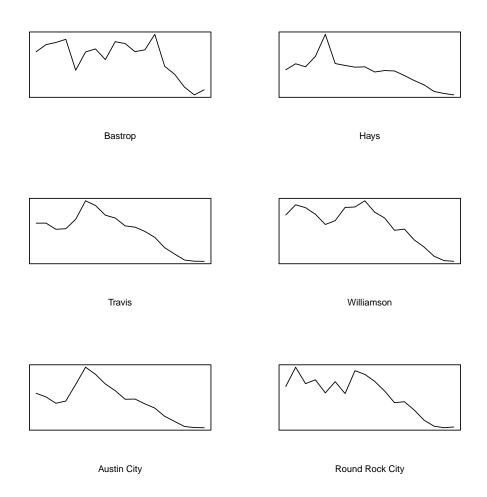


Figure 2: Age Distribution in 2014

Region	White	Black	Asian	Hispanic
Bastrop County	27.53	23.17	44.28	38.43
Hays County	52.34	45.41	62.38	34.12
Travis County	37.88	22.17	49.58	23.74
Williamson County	48.60	60.43	76.82	48.36
Austin City	38.84	8.60	52.35	22.00
Round Rock City	47.24	51.59	73.96	42.43

Table 3: Percentage Increase by Race

has grown fairly well in each region. These numbers show that Austin's white population is growing rapidly in all areas but East, and that minority groups are moving out, especially North to Williamson County and Round Rock. For citizenship status, Table 4 shows number of non-citizens in 2000 and 2014, as well as the percentage increase. The increases were very large, especially in Hays and Williamson Counties. The growth in Williamson county is especially noteworthy, because it already had a large number to begin with. It is worth noting that this variable measures both legal and illegal non-citizens, so it is not a count of the illegal immigrant population in the Austin area. After looking at these key demographic characteristics, I turned to economic variables to try to gain insight into what parts of Austin have gotten richer and poorer.

Region	Non-Citizens 2000	Non-Citizens 2014	Percentage Increase
Bastrop County	3609	5117	41.8
Hays County	3607	13678	279.2
Travis County	90246	141171	56.4
Williamson County	10964	32564	197.0
Austin City	82259	119281	45.0
Round Rock City	3459	7514	117.2

Table 4: Number of Non-Citizens

The most obvious economic variable is income, so the median household income is presented in Table 5, along with the percentage increase. Note that Table 5 does not adjust for inflation between the years, but only two regions saw an increase in income between 2000 and 2014, one of which was Austin city and the other was Round Rock, another urban area. This is perhaps the most telling chart of this project; even before adjusting for inflation,

there has been a decrease in income in all of the regions surrounding the city except for the largest urban center. This suggests that gentrification is indeed occurring at a rapid rate within the city, and it is forcing lower-income families to the suburbs. Adjusting 2014 income for inflation using the Consumer Price Index Inflation Calculator, as shown in Table 6, only increases the difference, and shows that Austin has seen an increase in inflation-adjusted income while every surrounding region, including Round Rock, has seen a decrease, all of them severe. Note that Williamson County had the largest decrease, suggesting that most displaced families move north and settle there. To round out my analysis, I looked at some housing characteristics, including size of household and median home value and rent.

Region	Median Income 2000	Median Income 2014	Percentage Increase
Bastrop County	49456	42156	-14.8
Hays County	56287	49490	-12.1
Travis County	58555	44959	-23.2
Williamson County	66208	42996	-35.1
Austin City	54091	87449	61.7
Round Rock City	65471	71999	10.0

Table 5: Median Household Income, Not Inflation Adjusted

Region	Median Income 2000	Median Income 2014	Percentage Increase
Bastrop County	49456	30771	-37.8
Hays County	56287	36124	-35.8
Travis County	58555	32817	-44.0
Williamson County	66208	31384	-52.6
Austin City	54091	63831	18.0
Round Rock City	65471	52554	-19.7

Table 6: Median Household Income, Inflation Adjusted

First, for size of household, Figure 3 shows the distribution of households from 1-person to 7-person for 2000, and Figure 4 shows the distribution for 2014. There is not much variation between the years, but it is clear that Austin City has many more 1- and 2-person households and the suburban areas have many more multiple-person households. This could be for many reasons, but it confirms the idea from the family and household transition that urban areas have more 1-person households. Next, looking at median home value and rent as

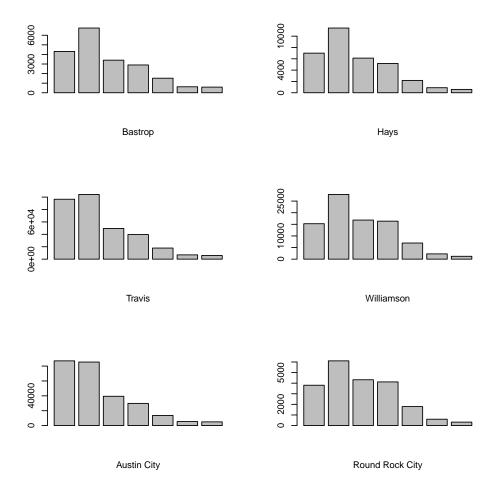


Figure 3: Household Size 2000

presented in Table 7, we find that median value and rent have both increased for each region before adjusting for inflation. Even after adjusting (Table 8), we still see value increases across the board, reflecting the climbing value of real estate in the area. Bastrop County is still the cheapest place to live, but its rent has increased the most as a percentage, perhaps indicating that it will grow in popularity as the years go by. It is interesting that rent and value have increased even as income has decreased; this reflects that value of real estate in the area Austin, where space is being used up due to rapid population growth. This is where I chose to end my research as I felt that I had enough information to provide a good overview of the demographic changes to the city over the past 15 years.

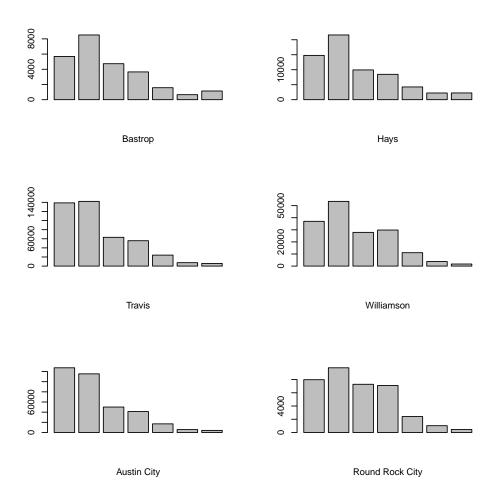


Figure 4: Household Size 2014

Region	Value 2000	Value 2014	Rent 2000	Rent 2014	Value % In.	Rent % In.
Bastrop County	86700	126300	549	884	45.7	61.0
Hays County	116700	183400	628	960	57.2	52.9
Travis County	127600	245600	727	1092	92.5	50.2
Williamson County	123900	212300	787	1034	71.3	31.4
Austin City	120800	255900	724	1084	111.8	49.7
Round Rock City	119200	193700	812	1030	62.5	26.8

Table 7: Median Home Value and Rent, Not Inflation Adjusted

Region	Value 2000	Value 2014	Rent 2000	Rent 2014	Value % In.	Rent % In.
Bastrop County	86700	92190	549	645	6.3	17.5
Hays County	116700	133869	628	701	14.7	11.6
Travis County	127600	179270	727	797	40.5	9.6
Williamson County	123900	154964	787	755	25.1	-4.1
Austin City	120800	186788	724	791	54.6	9.3
Round Rock City	119200	141387	812	752	18.6	-7.4

Table 8: Median Home Value and Rent, Inflation Adjusted

The results show that the literature on this topic is largely correct. Austin is indeed growing quickly, as are the surrounding areas. Gentrification is taking place at an incredible rate (based on the income statistics) and low income families are being forced out to the suburbs. The literature focused a great deal on the racial changes taking place, which are important and need to be addressed. Based on my research, I believe that the rising real estate prices in Williamson and Hays counties will drive people to Bastrop county, and will make Austin a less attractive city for migration in general. Austin City has a huge spike in the age distribution around 30 years old that has shifted slightly toward the older end of the spectrum since 2000. I believe that this reflects the increase in real estate costs pricing younger people out of the market, and I do not expect this trend to stop. However, the University of Texas helps mitigate this effect with a steady supply of young adults. There is still room for the median income in the city to increase (with an inflation-adjusted increase of only \$9,000 in the past 15 years) and I anticipate that as that happens the median income in the suburbs will start to increase as the middle class is priced out of the city. Once that happens, the low income families in the suburbs will be pushed even farther away and urban

sprawl will begin in earnest.

As many questions as my research answered, it left many more unanswered that could shed much more light on this topic. Primarily, how do the variables that I examined change when looking at a much closer level geographically? The county system allows for a good general overview of the area, but looking at the census tract level would be much more informative. Also, adding more territory around the city to the study would give a better overview of the topic. Another question that I found myself asking is why North Austin is growing so much faster than East Austin. My analysis only showed that it was happening, and that mostly lower income minority families were moving there. Finally, a topic that I left out because it was too difficult to address was the occupations of the population. The census occupation data does not lend itself to easy analysis; it features over one hundred different jobs sorted by many different industries. Looking at that information could help answer the question of why so many people want to move to Austin, but it was too daunting for me.

Bibliography

US Census Bureau. 2015. "Ten US Cities Now Have 1 Million People or More; California and Texas Each Have Three of These Places." Washington, DC: U.S. Department of Commerce. Retrieved December 17, 2015. (http://www.census.gov/newsroom/pressreleases/2015/cb15-89.html)

Robinson, Ryan. Not dated. "Top Ten Demographic Trends in Austin, Texas." Austin, Texas: City of Austin. Retrieved December 17, 2015. (https://www.austintexas.gov/page/top-ten-demographic-trends-austin-texas)

Solomon, Dan. 2015. "Why It Matters That AustinâĂŹs Black Population is Being Pushed to the Suburbs." Austin, Texas: Texas Monthly. Retrieved December 17, 2015. (http://www.texas monthly.com/the-daily-post/why-it-matters-that-austins-black-population-is-being-pushed-to-the-suburbs/)

Castillo, Juan. 2011. "Census data depict sweeping change in East Austin." Austin, Texas: Austin American Statesman. Retrieved December 17, 2015. (http://www.statesman.com/news/news/local/census-data-depict-sweeping-change-in-east-austi-1/nRZJD/)