



El Paso City Services
Balancing Need, Equity & Fairness

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An analysis of the method of distribution for various city services, the report operationalizes various programs and infrastructure that contribute to the city's quality of life. The report aims to identify gaps in service, traces of institutionalized planning discrimination and the favored policy of service-distribution.

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Municipalities exist within the State of Texas to ensure that citizens have adequate access to certain types of infrastructure to ensure they can maintain a decent quality of life. Any additional services that go beyond what the city is required to do are meant to generally enhance the quality of the community and make it more attractive for its citizens and visitors. However, within the City of El Paso, a perception commonly accepted by many is the idea that certain sectors of the City “have it all.” An inequitable distribution of services poses many concerns if a particular portion of the city truly has more access to certain municipal services. While varying theories of equitable service distribution currently exist, all of them struggle to balance the ideas of distribution based on population, utilization or need.

Because of this, Community Scholars sought to discover the distributive methods of the El Paso municipal government regarding services that are meant to increase an individual’s quality of life. This can be achieved by defining quality of life services and researching the city’s methods of distribution. To do this, Community Scholars aims to:

- Define quality of life
- Determine urban sprawl’s impact on city services
- Analyze the effectiveness and distribution of safety services
- Analyze the distribution of municipal parks
- Analyze the distribution and utilization of municipal libraries
- Compare the relative quality of education between school districts
- Analyze the distribution of street development and repair
- Compare the focus on street development throughout the city
- Conduct a bivariate statistical analysis (Appendix B)

In order to compare the various sectors of the city, Community Scholars used the El Paso City Council District boundaries. In this report, Community Scholars compared the distribution of municipal services throughout the city’s eight districts. For reference, the word district will refer specifically to the El Paso City Council Districts. All data collected for this report was gathered from various government agency databases, personal interviews, news sources, current literature regarding urban planning and municipal service distribution and information from the City of El Paso’s website and its respective departments.

Defining Quality of Life

The term quality of life, according to various researchers, is defined as one’s subjective well-being, the degree to which a person enjoys the important possibilities of his/hers life or the product of interplay among social, health, economic and environmental conditions that affect human and social development.¹ Therefore, quality of life services can be described as the services provided and meant to increase and enhance the well-being of its citizens. Over the years, El Paso has sought to improve the quality of life for citizens by creating departments aimed at increasing quality of life through the following services:

- Community and Human Development
- El Paso Zoo

¹ (Global Development Research Center No Date)

- Museums and Cultural Affairs
- Parks and Recreation
- Libraries
- Convention and Performing Arts Center
- Public Health²

Based on the given information, Community Scholars defines quality of live services as the services that provide the citizens of El Paso with enjoyable experiences during their residency in order to ensure a state of well-being. This also includes services that fall outside of the City’s definition, such as street development and transportation. According to Community Scholars, the following services contribute to the community’s quality of life:

- Safety
- Parks
- Libraries
- Education
- Housing
- Transportation
- Street Development

One should take notice that the El Paso Zoo, various museums and public health programs have been excluded from the list due to the nature of the facility or services. The attractions and programs are consolidated and clustered in only one area of the city, as they are meant to build off each other and serve as part of an economic development or revitalization strategy.

Community Scholars also offers information on each of the eight city districts within the City of El Paso. The following is a list of each district, the geographic term associated with it and the current city council representative.

- District 1 (Westside), Ann Morgan Lilly
- District 2 (Central), Susie Byrd
- District 3 (East Central), Emma Acosta
- District 4 (Northeast), Carl Robinson
- District 5 (Far East), Rachel Quintana
- District 6 (Eastside/Lower Valley), Eddie Holguin, Jr.
- District 7 (Eastridge/Mid-Valley), Steve Ortega
- District 8 (Southwest), Beto O’Rourke
- City of El Paso, Major John Cook

Each of the city’s eight districts serve the relatively same size population. This not only allows for geographic distribution analysis of service, but an estimated “per unit” comparison of access to services. However, it should be noted that each district has experienced growth and they are certainly not capable of serving the exact same number of constituents. Furthermore, an analysis of civic participation will be analyzed by displaying the distribution of neighborhood associations throughout the community to determine what impact, if any, these organizations have on service

² (City of El Paso 2010)

distribution. Community Scholars deemed it appropriate to initially provide an analysis of how urban sprawl has affected the aforementioned municipal services.

Urban Sprawl

Urban sprawl is generally regarded as a negative term used to describe growth at the edge or rim of a city. However, Community Scholars’ use of the term “sprawl” is intended to fall in line with existing literature regarding a pattern of development seen in metropolitan areas across the United States. While planning literature has debated the exact start of sprawl, Community Scholars concurs, along with Frumkin, Lawrence and Jackson, that the Federal Highway Act of 1956 was the beginning of sprawling development in the United States. The Act authorized the construction of highways throughout the nation. The idea was to spread out commercial and residential areas and to provide roadway accessibility to them, thereby relieving congestion and a deteriorating quality of life for residents in the urban centers. The process, however was termed “urban sprawl.”³

Characteristics of sprawl include growth of a city in a form that separates different land uses such as residential, commercial, office and recreational, or, single-use zoning. Low-density development is also characteristic of a sprawled community; buildings are built outward towards the fringes as opposed to constructing upward and thus further densifying the core of the city. Poor street connectivity and auto dependency are also characteristics of sprawled communities.⁴

El Paso Housing Age

In order to establish and develop the idea that El Paso is a sprawled metropolitan area, Community Scholars accessed home ages for the City of El Paso from the U.S. Census Bureau. Individual zip code data was compiled into each of the City’s eight districts. Community Scholars determined that development after 1960 meets the conventional definition of sprawl, and coincided with the previously discussed Federal Highway Act. Older development was pre-sprawl. The following table displays the percentage of development that is pre-sprawl and sprawled for each district. For tables regarding individual district age by decade, refer to Appendix A at the end of the report.

Table 1: City of El Paso Housing Age Percentages

District	Pre-Sprawl	Sprawl
1	15.75%	84.25%
2	53.35%	46.65%
3	47.29%	52.71%
4	26.60%	73.40%
5	6.36%	93.64%
6	6.96%	93.04%
7	18.42%	81.58%
8	39.65%	60.35%

Source: U.S. Census Bureau

³ (Frumkin, Lawrence and Jackson 2004)

⁴ (Research and Innovative Technology Administration 2010)

As the table displays, most of El Paso’s districts are heavily sprawled communities. The exceptions to this are Districts 2, 3 and 8. These parts of town are the central-most areas and contain a larger number of historic districts and represent parts of the “urban core.” Districts 5 and 6, which comprise the larger-eastside area, show that much of the city’s growth in the past half-century has occurred in this part of town.

Institutionalized Sprawl

In a presentation to the El Paso community, Dover, Kohl & Partners, a leading urban planning and design firm, stated that El Paso “institutionalized” sprawl development within city policy due to current development guidelines.⁵ The ideas of density and building proximity are hindered by the city’s current subdivision code. The following list presents the building setbacks for a single-family dwelling in an R-1 zoning district. Setbacks refer to the distance the home is required to be from the edges of the lot the home is built on.

- Minimum Front Yard: 30 ft
- Minimum Rear Yard: 30 ft
- Minimum Cumulative Front/Rear Yard: 100 ft
- Minimum Side Yard: 15 ft
- Minimum Side Street: 20 ft
- Minimum Lot Area: 20,000 ft⁶

The current code results in typical suburban development, where homes are built in the middle of lots with large yards. While the City of El Paso may have a Smart Code adopted, which helps to alleviate development issues with density, no developer has used this development guide in their projects to date.⁷

‘Unsustainable’ Development

In an interview with El Paso City Council Representative Susie Byrd (District 2), she stated the current growth patterns that we are experiencing due to sprawl are “simply unsustainable” and something that we “cannot afford.” Byrd went further to say that this growth is inefficient and has come at the expense of more centralized districts that contain communities in the core.⁸ As cities begin to expand to the fringes of the city, services are often duplicated, spreading departments’ budgets and operations thinly. This may translate to new firehouses, police stations and schools being built on the rim of the city, while older facilities within the city are closed down.

Poor street connectivity may also factor into how sustainable a development is.⁹ For example, increased connectivity may yield faster emergency response times or a decrease in street repair expenditures. In order to analyze this, Community Scholars produced the following maps

⁵ (Dover, Kohl & Partners 2010)

⁶ (City of El Paso No Date)

⁷ (Dover, Kohl & Partners 2010)

⁸ (Byrd 2010)

⁹ (Congress for the New Urbanism 1997-2010)

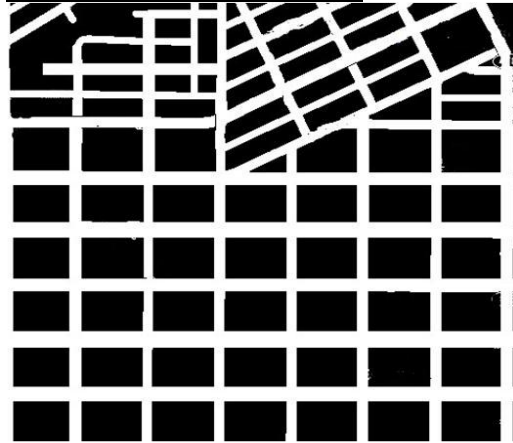
of streets in Districts 1 and 2, a sprawled and non-sprawled out district, respectively. The white in the maps represents roads while the black is land.

Figure 1.1: District 1 Map



Mesa & Resler

Figure 1.2: District 2 Map



Piedras & Montana

The Piedras & Montana street map has many options to choose from when one wishes to reach a destination. The map also has many throughways, great street connectivity and is able to disperse traffic evenly and more efficiently. The Mesa & Resler street map has fewer options for one to choose from to reach a destination, meaning a decrease in street connectivity and the potential for more traffic build up.¹⁰ This may affect street development in the sense that roads must be used more often, by more cars due to a lack of options. If there are various routes to choose from, vehicle weight has the potential to be more evenly dispersed, causing less wear and tear on the city's roads. However, an area with higher street connectivity may have less frequent maintenance, but a higher total area of road to maintain.

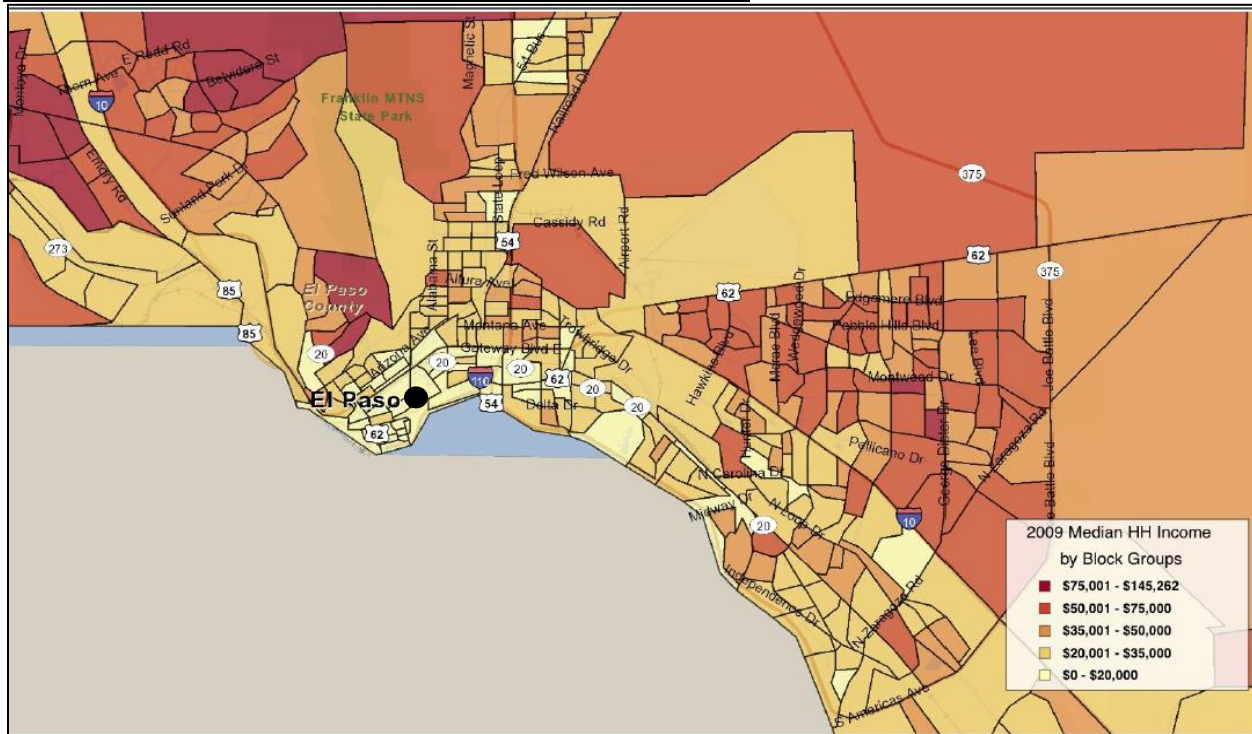
Another important issue when discussing the impact sprawl has had on communities is its impact on income distribution. Traditionally, communities had strong concentrated areas of wealth in an urban core, central business district or downtown. As development began to move away from this very core, income followed it, leaving El Paso with an impoverished urban core.¹¹ The following figure was produced by Dover, Kohl & Partners and illustrates the areas of high income in the city, denoted by darker shades of red, as well as the lower-income areas, denoted by lighter shades of yellow.

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¹⁰ (Envision Landcaster County 2010)

¹¹ (Dover, Kohl & Partners 2010)

Figure 2: 2009 El Paso Household Income Distribution



Source: Dover, Kohl & Partners

As the figure displays, wealth is now concentrated in the East and West portions of the community. El Paso’s downtown, denoted in the figure by the black circle, is in one of the lowest income tracts in the entire community.

District Socioeconomic Description

Community Scholars compiled data estimate on a district-by-district basis using 2000 U.S. Census data. While the information may be admittedly dated, it is the only available data that is presented on a by-zip-code basis, allowing the information to be distributed into the city’s eight districts. Various calculations were made to either adjust numbers to 2010-dollar figures or to divide zip codes that may be served by more than one district. The follow paragraphs describe the methods Community Scholars utilized to achieve their district-by-district figures.

Community Scholars aggregated data by zip code and then identified which district each zip code was contained within. When zip codes were “shared” by two or more districts, an approximation was made as to what percentage of the zip code belonged to each district, allowing Community Scholars to estimate what percentage of population, impoverished families, etc. belonged to what district. Dollar figures were adjusted to 2010 amounts utilizing the U.S. Bureau of Labor and Statistics Consumer Price Index (CPI) data. While the home data may admittedly be dated, numerous information requests made to the El Paso County Appraisal District were never responded to. The following table shows the population, median home value and families below the poverty level by district.

Table 2: District Socioeconomic Statistics

District	Population	Median Home Value	Families Below Poverty Level
1	57,136	\$97,300	1,694
2	51,593	\$64,700	3,076
3	65,444	\$62,867	3,923
4	89,403	\$66,867	4,063
5	60,269	\$75,100	1,862
6	89,027	\$64,050	4,363
7	67,016	\$71,180	3,029
8	87,829	\$78,725	5,527

Source: U.S Census Bureau

El Paso Fire Department Response Times

Community Scholars chose to include safety because maintaining an individual’s safety allows for a sense of well-being, directly affecting one’s quality of life. Safety data was gathered from the El Paso Fire Department and compiled into a district-by-district format. Information requests made to the El Paso Police Department for response time information were never fulfilled.

The El Paso Fire Department is a full service organization that responds to all calls involving fires, medical emergencies and hazardous material events. The Department responds to over 63,000 emergency calls annually.¹² Their mission is to prevent or minimize loss of life and property from fires or other emergencies.¹³

Fire Departments per District

The following table displays the number of fire stations in each district. Community Scholars, when calculating fire stations per district, took into consideration fire stations that are only part of a district. Fire stations were included in the report because the safety of citizens is important when viewing quality of life services for El Pasoans.

Table 3: Fire Stations per District

District	Stations
1	4
2	2
3	3
4	6
5	2
6	4
7	4
8	8
Total	33

Source: El Paso Fire Department

¹² (El Paso Fire Department 2010)

¹³ (El Paso Fire Department 2010)

In the table above, District 8 has the most fire stations with eight. This is about four more fire stations than the average number of fire stations per district. Districts 2 and 5 both contain the fewest number of stations, at two each. Recalling the previously discussed housing ages of each district, it is clear that most sprawled districts have a higher amount of stations within their boundaries, except for District 8.

The following table displays the total calls in each city district that the Fire Department responded to in 2009.

Table 4: Total Response Calls per District

District	Calls
1	6,307
2	8,453
3	10,268
4	8,567
5	6,272
6	8,392
7	7,724
8	14,836

Source: El Paso Fire Department

District 8 has the most fire calls in the entire city at 14,836. District 5 contains the least amount of calls at 6,272. District 1 also has a relatively low amount of calls at 6,307. There is generally a thought that more fire stations and less calls would lead to a faster response time, and in order to analyze this, the following table will display the average response times for each district. A bivariate statistical analysis conducted by Community Scholars found a positive statistically significant relationship between the number of impoverished families a district contained and the number of calls a district receives. For every additional family that fell below the poverty line, there were an additional two calls received in each district. Additionally, a statistically significant relationship also exists between the number of calls a district receives and the number of fire stations present within said district; as calls in a district increase, so do the number of fire houses. For more information regarding the statistical analysis results, refer to Appendix B.

Table 5: Average Response Time by District

District	Response Time
1	5.36
2	4.38
3	4.39
4	4.52
5	4.27
6	4.54
7	4.22
8	4.45

Source: El Paso Fire Department

District 1 has the slowest response time than any other district. According to the U.S. Department of Homeland Security, the national average response time is less than 5 minutes.¹⁴ District 1 does not meet this as it stands at 5.36 minutes. District 7 has the fastest response time at 4.22 minutes, well under the national average. District 1 may have a slow response time because of its poor street connectivity, as previously shown in the report. Furthermore, Community Scholars’ statistical analysis produced results showing that as median home values in a district increase by \$10K, response times increase by 0.25 minutes. This is an important relationship to discover, as this goes against the idea that areas with higher incomes and socioeconomic status often receive a larger portion of city services.

Parks & Recreation

The following section discusses the distribution of park facilities throughout the City of El Paso. While there are admittedly many services provided by the City’s Parks and Recreation Department, Community Scholars chose only to analyze the distribution of aquatic centers and park facilities. These facilities are publically funded and established throughout the city. Other programs and leagues are subject to participation from the citizenry, making their existence dependent on other factors aside from financial support for the City.

Aquatic Centers

Aquatic centers are affordable summer attraction facilities that serve as neighborhood centers. This neighborhood feature is intended to bring a community together through enjoyable experiences and thus increase the quality of life in the area.¹⁵ The City currently operates 14 indoor and outdoor aquatic facilities.¹⁶ The following graph displays the geographic distribution of aquatic facilities by district:

Table 6: Aquatic Centers per District

District	Aquatic Centers
1	0
2	4
3	3
4	1
5	0
6	1
7	2
8	3
Total	14

Source: City of El Paso Parks & Recreation Department

The table shows that District 2 has the most facilities at four, while Districts 3 and 8 follow closely with 3 facilities in their district. Districts 1 and 5, however, have no aquatic facilities in their district. Referring back to each district’s housing age, it is clear that these facilities reside

¹⁴ (U.S. Fire Administration & National Fire Data Center 2006)

¹⁵ (Morgan 2010)

¹⁶ (City of El Paso 2010)

predominantly in non-sprawled communities. Community Scholars' statistical analysis showed a statistically significant relationship between the number of aquatic centers contained within a district and how much development within the district was considered urban sprawl. Put simply, as the percentage of sprawled development in a district increases, the number of aquatic centers decreases.

Parks

Parks are created for the public as a recreational area or as an open space where one can exercise, aiming to increase the community interaction of a given population, hence, increasing quality of life.¹⁷ Community Scholars decided to include parks that provide an open plot of land for community enjoyment, with or without amenities, in the analysis of the distribution of services by the municipal government. In this section, Community Scholars will first define the various types of parks then analyze the geographic distribution and quality of the parks throughout the city.

Types There are various types of parks within the city. The city government website provides a list of 11 park types.¹⁸ From these 11, Community Scholars decided to include only seven park types because the other four parks types did not significantly contribute to the typical open space characteristics of most parks. The parks included were the following with their given definitions:

- Neighborhood- Serve the needs of people living/working within a one-mile radius¹⁹
- Pocket-Very small park intended for public leisure, such as a garden park or plaza
- Pocket Urban- Pocket park is specific to urban areas²⁰
- Community-Serves significant geographical segment of city's population (>25 acres)²¹
- Linear-Linear in shape, used primarily as a trail such as the Rio Grande River Trail
- Nature- Little to no development; meant to teach and preserve
- Regional-Large parks who may serve more than just the adjoining community²²

In addition, for reference, Community Scholars created the following table of how many parks per type of park there is in the city of El Paso.

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¹⁷ (Frumkin, Lawrence and Jackson 2004)

¹⁸ (City of El Paso 2010)

¹⁹ (Town of Eagar 2005)

²⁰ (Blake No Date)

²¹ (Town of Eagar 2005)

²² (McKnight 2010)

Table 7: Amount of Parks by Types

Type	Parks
Neighborhood	85
Pocket	42
Community	27
Linear	13
Nature	7
Pocket Urban	7
Regional	1
Total	182

Source: City of El Paso Parks & Recreation Department

The table displays the fact that neighborhood parks are the most common type of park in El Paso, with 85 of them spread out across the city. Regional, however, is the least common type of park with only one in the city being the Eastside Regional Park.

Geographic Distribution Now that the parks have been defined, the following table displays the geographic distribution of parks throughout the city's eight districts.

Table 8: Geographic Distribution of Parks

District	Parks	Percentage
1	34	18.7%
2	18	9.9%
3	17	9.3%
4	22	12.1%
5	27	14.8%
6	21	11.5%
7	9	4.9%
8	34	18.7%

Source: City of El Paso Parks & Recreation Department

In this table, Districts 1 and 8, which geographically dominate the Westside of El Paso, both have over 30 parks each. Together, they make up 68 parks, which is over one third of the total amount of parks in the city. It is also worth noting that District 7, the Eastridge Mid-Valley, has only nine parks. El Paso City Representative Steve Ortega (District 7) attributed this to the fact that a large portion of his district was built in the 1970's when creating available park space in neighborhoods was a laxly regulated. The result of this was a lack of available park space for the district today.²³

Accessibility While a district may have a large number of parks, Community Scholars understood the importance of analyzing the size of those parks. The following section presents data concerning the acreage of the parks in order to determine if a district has more access to more park space than another does.

The first table displays a general overview of the park size statistics for the city. These statistics include a maximum, minimum, median, average and mode. The maximum and

²³ (Ortega 2010)

minimum are the sizes of the largest and smallest parks in the city by acres, respectively. The median is the middle value in an ordered set of values, and was included because it is not subject to inflation by outliers.²⁴ The mode is the most frequent value in a set of values, and was included to express the most common size of parks in the city.²⁵

Table 9: General Park Size Statistics

Detail	Value (In Acres)
Maximum	105.0
Minimum	0.1
Median	4.1
Average	10.4
Mode	2.0

Source: City of El Paso Parks & Recreation Department

In this table, the most common acreage of a park in the city of El Paso is two acres. It is important to recall that the most reoccurring park throughout the city is a neighborhood park, meant to serve individuals within a one-mile radius of the facility. The largest park in the city is 105 acres, while the smallest are only one tenth of an acre. These small parks include the Fire Fighters Memorial in District 8, Indian Heights in District 5, Normandy in District 2 and Union Plaza in District 8.²⁶

The following table displays data regarding the acreage of parks within a given district. This data is presented in order to account for differing sizes of parks, which directly influences citizens’ perception of accessibility to these facilities. The average, median and total acreage of each district is displayed. It should be noted that median values are often regarded as more statistically reliable measures and average values are often subject to in/deflation due to outliers present within the data set. In other words, a consistent set of numbers can have a high average if a substantially higher/lower number is found within the same set of information.

Table 10: Acreage of Parks by District

District	Average	Median	Total Acreage
1	10.6	3.7	359.3
2	14.6	4.0	262.0
3	10.2	7.0	173.3
4	12.5	6.4	274.7
5	9.7	3.1	261.7
6	11.9	5.6	249.8
7	14.0	12.2	125.7
8	5.5	1.6	185.8
City	10.4	4.1	1,892.4

Source: City of El Paso Parks & Recreation Department

The acreage information offers various points to consider. For one, District 2 has the highest average park acreage of all the city’s districts, while District 7 has the highest median park

²⁴ (Princeton No Date)

²⁵ (Princeton No Date)

²⁶ (City of El Paso 2010)

acreage. As previously mentioned, District 7 has a relatively low number of parks within its boundaries as compared to other districts. When coupled with this data, it becomes evident that District 7 has a higher number of larger parks to serve its citizens as compared to District 8, who has a relatively low-median acreage park size, but a high number of parks. Furthermore, as discussed with aquatic centers, neighborhood centers are a feature predominantly found in pre-sprawl development, meaning that non-sprawled districts, such as 8, might place a higher emphasis on frequent smaller parks as opposed to a smaller number of large parks.

In order to account for population differences in the districts, the following tables show district park access for every 10,000 persons. For example, the first table will display data regarding the ratio of parks to every 10,000 persons in a district. Simply stated, this means that a district will have X number of parks for every 10,000 persons within its boundaries. The second table will display data regarding the ration of park acres to every 10,000 persons, showing how many acres of land are allotted in a district for every 10,000 persons. The figures presented in the following table were calculated utilizing the following formulas:

Table X: Total District Parks/(Total District Population/10,000)

Table X: Total District Park Acreage/(Total District Population/10,000)

Table 11: Ratio of Parks to 10,000 Persons

District	Parks
1	5.95
2	3.49
3	2.60
4	2.46
5	4.48
6	2.36
7	1.34
8	3.87

Source: U.S. Census Bureau; City of El Paso Parks & Recreation Department

In this table, District 1 has just about six parks for every 10,000 people. This is a huge difference from District 7, where there are a mere 1.34 parks for every 10,000 people. This means that about one park in District 7 is meant to serve 10,000 people. It should be noted that while District 8 tied with District 1 for the largest number of parks in a given district, when accounting for population, District 8 has less park access than District 1. The next table furthers the idea of park accessibility, accounting for both differences in population and park sizes.

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Table 12: Ratio of Park Acres to 10,000 Persons

District	Park Acreage
1	62.88
2	50.78
3	26.49
4	30.73
5	43.41
6	28.06
7	18.76
8	21.16

Source: U.S. Census Bureau; City of El Paso Parks & Recreation Department

District 1 has the highest park accessibility in the City of El Paso, offering approximately 63 acres of parks for every 10,000 persons. District 7 offers the lowest accessibility, with about 19 acres for every 10,000 persons. Second from the bottom is District 8 at 21 acres, which as previously mentioned, has the second-largest number of parks in its district.

Libraries

Princeton Education defines a public library as a nonprofit reading facility maintained for public use.²⁷ As a municipally distributed service, Community Scholars decided to analyze the geographic distribution of public libraries throughout the city as well as the usage rates of the services they provide and population within each district. Lastly, Community Scholars aims to determine if population or checkouts, which we defined as utilization, affects the distribution of libraries within a district. Exact population estimates are included in this section because, as previously mentioned, districts may serve larger or smaller groups of constituents despite the efforts of the City as it created each district.

Geographic Distribution

Public libraries are dispersed throughout the city for public use. These libraries offer many services to the citizens of El Paso such as public internet access, reading clubs, citizenship classes and literacy programs. The following table displays the geographic distribution of public libraries throughout the eight city districts. The main library branch in downtown El Paso was omitted as it is intended to serve the entire community.

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²⁷ (Princeton No Date)

Table 13: Public Libraries per District

Districts	Libraries	Percent
1	2	16.6%
2	1	8.3%
3	1	8.3%
4	1	8.3%
5	1	8.3%
6	2	16.6%
7	1	8.3%
8	3	25.0%
Total	12	100%

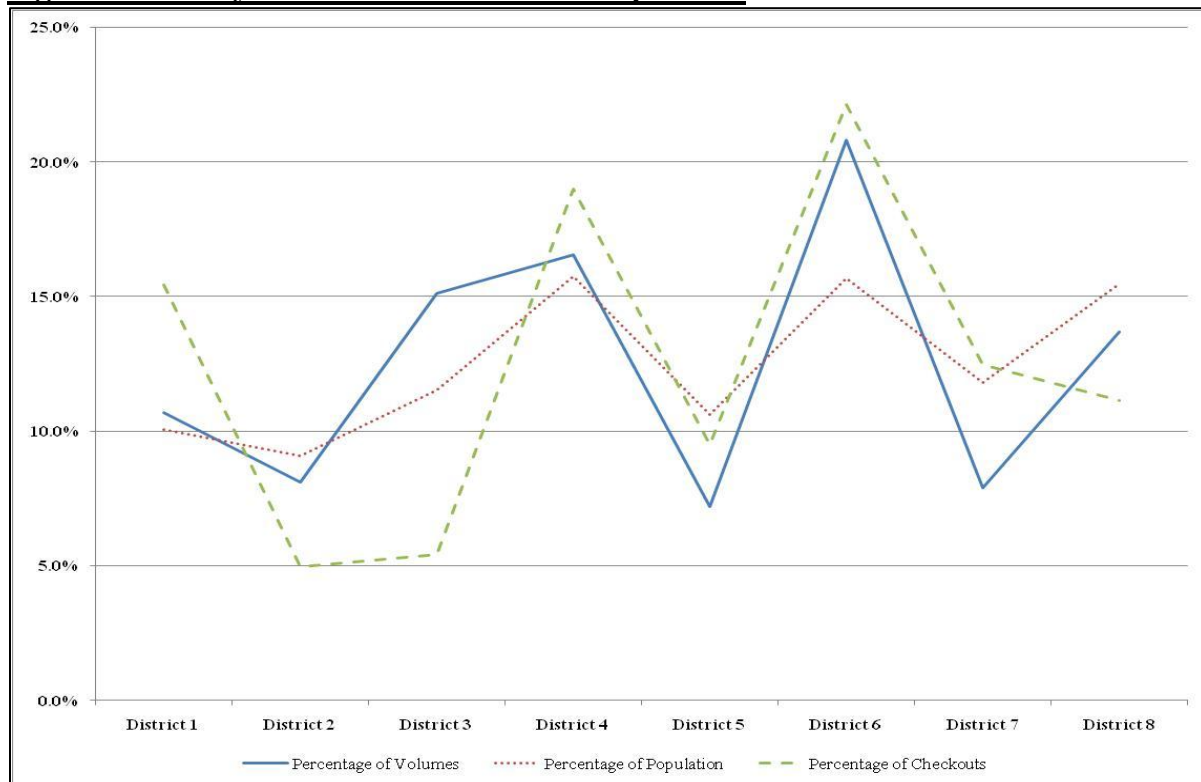
Source: El Paso Public Library

District 8 contains the most public libraries at three within the city of El Paso. Libraries within the other districts closely follow. Districts 1 and 6 contain two, while the others have one public library within their district.

Utilization v. Population

The following figure displays the percentage of volumes, population and checkouts within the each district of the city of El Paso. The graph aims to show the relationship, if any, between the percentages of volumes a district has access to and how many people reside in the district and how many checkouts occur at that district’s libraries.

Figure 3: Library Volumes/Checkouts and Population



Source: U.S. Census Bureau; El Paso Public Library

The solid line depicts the percentage of total volumes a district has. It is clear that population is closely related to how many volumes a district has access to. In other words, as the number of people within a particular district increases, so does the number of volumes found within the district's public libraries. In addition, one can note that as the number of volumes increases, so does the number of checkouts. Further statistical analysis showed that a positive and statistically significant relationship exists between a district's population and the number of volumes it had access to; for every additional 10 persons residing within a district, the district had access to an additional 15 books.

In an interview with District 4 Representative Carl Robinson, he stated that there are competing theories of distributing services across the city. He went on to state that certain services should be distributed based on utilization, while maintaining an understanding that equitable distribution based on need is very important.²⁸ In regards to library services, it appears that if a district has increased access to volumes, they may also have higher utilization, or checkout, rates.

Education

Education can increase a person's quality of life because many opportunities for social and economic advancement can be achieved through the completion of an education. Although public education is not a service distributed by the City of El Paso, Community Scholars chose to analyze which school districts are excelling, and then identifying what districts they serve.²⁹ The following section discusses school performance of four school districts.

Texas Education Agency Accountability

The Texas Education Agency (TEA) is an agency, funded through state and federal support, responsible for holding educational institutions responsible for their academic performance.³⁰ This is achieved by administering every public school in the state of Texas with the Texas Assessment of Knowledge and Skills (TAKS) and giving each school an accountability rating based off these TAKS scores, along with annual completion rates.³¹ The accountability ratings assigned are:

- Exemplary (EXE)
- Recognized (REC)
- Academically Acceptable (AA)
- Academically Unacceptable (AU)³²

Community Scholars utilized this particular accountability system since all public schools in Texas are subject to its performance reviews. Furthermore, the data presented in the AEIS is a consolidated source of information readily accessible when discussing school performance. Lastly, data is only presented on a school district level, not a campus level, due to time and

²⁸ (Robinson 2010)

²⁹ (Baum and Ma 2007)

³⁰ (Texas Education Agency 2007-2010)

³¹ (Texas Education Agency 2007-2010)

³² (Texas Education Agency 2010)

research constraints Community Scholars encountered during the research period. It should be noted that individual campuses within districts may exceed or fall below the school district’s ranking. The following tables display performance data for the four school districts that serve the City of El Paso. The abbreviations described in the bulleted list prior to this table are utilized in the table.

Table 14: TEA Ratings by School District

School District	2007	2008	2009	District(s)
Canutillo	AA	AA	AA	1
Ysleta	AA	AA	AA	5,6,7
El Paso	AA	AA	AA	1,2,3,4,8
Socorro	AA	AA	REC	5,6,7

Source: Texas Education Agency

The table displays that some school districts serve various city districts. However, Districts 5, 6, and 7 are the only districts that have a Recognized school district. All other districts contain school districts that are Academically Acceptable.

Federal Adequate Yearly Progress

Schools are also annually rated by the federal government due to the No Child Left Behind Act (NCLB). The Act creates standards based on selective reviews of a state’s standardized test, in the case of Texas, the TAKS. The review includes passing rates for the math and reading portions of the exam, the number of individuals who actually take the test and then overall high school graduation rates. Both the El Paso and Ysleta ISDs received failing grades from the Adequate Yearly Progress standard based on their math passage rate. Socorro and Canutillo ISDs were deemed acceptable and had no individual campuses receive failing grades.³³

Street Development

The beautification of city streets is a municipal service provided by the city that is meant to instill a sense of pride in the area, thus aimed at increasing a community’s quality of life.³⁴ Community Scholars aims to discover how the city prioritizes the streets it resurfaces and repairs.

Pavement Condition Index

Streets are prioritized for repair and resurfacing by the City’s Pavement Condition Index (PCI). The Index solely analyzed the condition of the street’s asphaltic layer, while excluding the condition of the curb, sub-asphaltic foundation, sidewalks and drainage, when assigning each of El Paso’s streets a rating. Any given street may receive any of the following ratings:

- Excellent
- Very Good
- Good
- Fair

³³ (Acosta 2020)

³⁴ (Byrd 2010)

- Marginal
- Poor
- Very Poor

Funding for this program is dependent on the city budget. Therefore, the quantity of streets that are addressed each year is also dependent on the funds that are appropriated to the department for the year.³⁵ The following table displays the amount of street resurfaces and/or repairs that each district had in the last year, as well as the percentage of the city’s total amount of street projects of these given amounts.

Table 15: Street Resurfaces/ Repairs (2009)

District	Street Projects	Percentage
1	30	27.0%
2	12	10.8%
3	20	18.2%
4	7	6.3%
5	9	8.1%
6	3	2.7%
7	11	9.9%
8	19	17.1%
Total	111	100%

Source: City of El Paso Streets Department

The table displays the fact that District 1 had 30 street projects, with almost a third of the city’s total street projects for the last year. District 6, however, is at the very bottom of this spectrum with only three projects in the last year. This number was 2.7 percent of the city total projects for the year 2009. A theory as to why this may be can be possibly be explained by the street maps from Figure X. District 1, because of urban sprawl, has many streets with poor street connectivity such as the Mesa and Resler image. This inadequate street connectivity places a burden on roadways because automobiles are forced to use the same streets with limited paths of travel. The frequent heavy weight of these vehicles may cause roadways to wear down faster and hence require more attention regarding resurfaces and repairs. Furthermore, District 1 and 8 experienced severe road decay during El Paso’s Storm 2006, a storm that swept debris down El Paso’s traffic corridors, wearing down roads quicker than anticipated.

Neighborhood Associations

Neighborhood associations are organizations which aim to represent the interests of their respective neighborhoods.³⁶ In this respect, it may be possible for them to have an influence on municipal services in their area. In this section, Community Scholars aims to determine how great of an influence, if any, neighborhood associations have on the municipal government to entice certain services to their area.

Impact of Neighborhood Associations

³⁵ (El Paso Street Department 2010)

³⁶ (City of El Paso 2010)

After interviewing many of the city district representatives, the greater portion of them stated that neighborhood associations had limited influence on certain services. For example, El Paso City Representative Beto O'Rourke (District 8) stated that neighborhood associations had zero impact on the city's decision to resurface certain streets. As previously discussed, the City now utilized a grading system that objectively analyzes road quality to identify need and remove political whim from street resurfacing projects.³⁷ On other services, such as median beautification, neighborhood associations can have an impact, often competing for grants that help to instill pride in a given community.³⁸ Carl Robinson also stated that neighborhood associations are the "eyes and ears" of the community and help identify gaps in service that may otherwise go unnoticed by City staff or district representatives.³⁹

Table 16: Neighborhood Associations by District

District	Associations
1	16
2	5
3	5
4	4
5	1
6	6
7	6
8	17

Source: City of El Paso

Both districts 1 and 8 have the most neighborhood associations at 16 and 17 associations. District 5, which is the Far Eastside of the city, has only one neighborhood association. Further statistical analysis identified a statistically significant relationship between a district's median home value and the number of neighborhood associations present within said district; as district median home values increased \$10K, there were an additional 3.5 neighborhood associations present within the area.

Discussion

Municipalities across the nation have been faced with difficult decisions in regards to how municipal services should be distributed throughout their communities. Each theory or method has shortcomings, as the various tables and figures throughout the report highlighted. However, the City of El Paso currently employs various methods to ensure that citizens have access to services they have come to expect, and while there is certainly room for improvement, citizens in El Paso have a relatively balanced access to services regardless of the district they may live in. Distribution of services is based on varying theories in order to meet the specific and unique demands of the community. These different theories are ones based on utilization, need and population. The following section describes more detailed conclusions reached throughout the research period.

³⁷ (O' Rourke 2010)

³⁸ (Ortega 2010)

³⁹ (Robinson 2010)

Conclusions

Sprawl certainly negatively affects the quality of life that a portion of the community experiences. As noted previously, sprawl has affected the way communities developed, meaning that certain neighborhoods in towns lack street connectivity, aquatic centers, parks, libraries or other regional neighborhood centers. This not only causes a decrease in quality of life for certain citizens, but also, may lead to higher response times from the fire department, as demonstrated with District 1, the sprawled west El Paso district.

Adding to this, the City has been forced to build a higher amount of fire stations in outlying districts in order to compensate for poor street connectivity. This duplication of services is certainly not limited to fire stations, as local school districts on the fringes of the city are building new schools while under populated campuses in the city's core are being closed and shut down. Fiscally speaking, the taxpayers in the core of the city are subsidizing expansion and growth at the edge of the city and seeing no immediate or positive results, an unfair burden to place on any taxpayer.

A few specific relationships discovered throughout the research revolved around how distribution and access to certain services correlate to certain dimensions of socioeconomic status and well-being. For example, there is statistically significant positive correlation between average home values and the number of parks within that given district. This is quite logical, because as parks in an area increase, the homes in the area begin to appreciate, as people wish to locate in an area with a large amount of open green space. Furthermore, since the research only focused on municipal services, private open space, often seen in subdivisions on the outskirts of the community, were not counted, but those pockets of green space certainly impacts quality of life and property values as well.

Furthermore, poverty was found to be concentrated in small geographical areas, such as the southern portion of District 8. In researching library services, a relationship was discovered that as the number of library volumes in a district increased, so did the number of impoverished families. Adding to this, as volumes increased, so did utilization rates, measured through checkouts. In other words, these libraries may be acting as neighborhood centers in economically distressed areas of El Paso, a positive trend that may begin to reverse trends of poor education attainment and socioeconomic mobility. Also, this relationship helps to dispel the myth that impoverished areas of town do not utilize services such as the library simply because of their current low socioeconomic status.

When considering access to public services and socioeconomic status, Districts 2 and 3 have the highest quality of life within the city. These districts are in Central and East Central El Paso, and were predominantly developed prior to 1960, prior to urban sprawl. While these districts are older parts of town and may need redevelopment, the high amount of activity concerning quality of life in the districts make them worth residing in. The following section offers recommendations to City leaders to address issues discovered regarding municipal service distribution.

Recommendations

The city needs to return to a sustainable form of development that promotes density, good street connectivity and neighborhood centers. This idea refers back as to why Districts 2 and 3 had the highest quality of life. The adoption of smart growth principles, or the possible requirement of such principles in new developments, may help to reverse the urban sprawl growth the community is still seeing. Changes need to be made to the city's subdivision code that promote a denser style of development that mimics the character and layout of the city's older neighborhoods.

Also, given the disparity in the number of recreational areas per district, the city needs to creatively distribute parks and aquatic centers to current developments based on need and availability. Just as the city prioritizes street projects, such a system should be created to identify areas that are significantly underserved by parks in order to provide incentives for new open space in these areas. This may include the conversion of ponds to park ponds through use of water harvesting techniques on new developments in the area or possible renovations to existing homes and streets.

There should be an even access to libraries across the city, including the number of volumes each branch may have. In Figure 3, which displayed the number of volumes, population and utilization, it displayed that as long as the access to books is available the utilization rates will match the access. If people are using their libraries adequately, this helps to further educate our population and dispel the ideas that El Paso is the one of the most "illiterate" communities in the nation.

As the city works on its Comprehensive Plan this coming year, increasing street connectivity on outlying districts should be a high priority. Throughout the report, the impacts of street connectivity on fire response times and street project has been explained as a negative one. Making this a high priority, will not only increase safety in those districts, but will help the city cut costs by closing unnecessary fire stations and reduce street repair expenditures. The Plan will also allow the City and the City Planning Commission the opportunity to promote denser styles of development, as mentioned in the first recommendation.

Provide and promote increased financial incentives to help form neighborhood associations that would create civic participation intended to create pride in a community. These incentives could be offered for promoting awareness concerning median beautification grants for example, so that these associations could take ownership of their community.

Lastly, the 2010 Census Data is available, the city should consider redrawing District 1 and 8 to a more geographically logical shape. This recommendation was created after considering the dynamic nature of District 8, regarding the sharp contrast in socioeconomic status between the northern and southern portions of the district. Adding to this concern is the fact that the current District 8 representative, Beto O'Rourke, is the first official to be elected to this office South of Schuster Street. The southern tract of the district may have historically been political neglected by representatives, considering their low civic participation and socioeconomic status.

Appendix A: Housing Ages by District

Table A.1: District 1 Housing Age

Decade	Number of Units
1939 or Earlier	1,296
1940-1949	449
1950-1959	1,554
1960-1969	2,491
1970-1979	4,462
1980-1989	4,568
1990-2000	6,126

Source: U.S. Census Bureau

Table A.2: District 2 Housing Age

Decade	Number of Units
1939 or Earlier	2,758
1940-1949	2,418
1950-1959	6,913
1960-1969	6,364
1970-1979	3,026
1980-1989	745
1990-2000	434

Source: U.S. Census Bureau

Table A.3: District 3 Housing Age

Decade	Number of Units
1939 or Earlier	1,000
1940-1949	1,954
1950-1959	6,816
1960-1969	7,072
1970-1979	2,778
1980-1989	629
1990-2000	411

Source: U.S. Census Bureau

Table A.4: District 4 Housing Age

Decade	Number of Units
1939 or Earlier	238
1940-1949	491
1950-1959	4,836
1960-1969	4,765
1970-1979	4,670
1980-1989	3,106
1990-2000	2,814

Source: U.S. Census Bureau

Table A.5: District 5 Housing Age

Decade	Number of Units
1939 or Earlier	84
1940-1949	290
1950-1959	1,959
1960-1969	4,802
1970-1979	8,056
1980-1989	9,099
1990-2000	12,388

Source: U.S. Census Bureau

Table A.6: District 6 Housing Age

Decade	Number of Units
1939 or Earlier	612
1940-1949	601
1950-1959	2,034
1960-1969	1,764
1970-1979	9,300
1980-1989	13,710
1990-2000	18,639

Source: U.S. Census Bureau

Table A.7: District 7 Housing Age

Decade	Number of Units
1939 or Earlier	945
1940-1949	1,685
1950-1959	6,811
1960-1969	7,942
1970-1979	11,996
1980-1989	10,599
1990-2000	11,270

Source: U.S. Census Bureau

Table A.8: District 8 Housing Age

Decade	Number of Units
1939 or Earlier	4,701
1940-1949	3,318
1950-1959	6,731
1960-1969	4,494
1970-1979	5,797
1980-1989	5,362
1990-2000	6,793

Source: U.S. Census Bureau

Appendix B: Bivariate Statistical Analysis

As stated throughout the report, Community Scholars analyzed the relationship between various variables using a regression analysis. The following tables display the outputs of the regression analyses for numerous relationships. For reference, the first variable is listed as the dependent variable while the second variable refers to the independent variable. Simply stated, the regression analyzed how strongly, if at all, the second variable affected the first variable.

Table B.1: Regression Number of Aquatic Centers and Sprawled Development

. regress aquaticcenters percentsprawl						
Source	SS	df	MS			
Model	12.4119122	1	12.4119122	Number of obs =	8	
Residual	3.08808777	6	.514681294	F(1, 6) =	24.12	
Total	15.5	7	2.21428571	Prob > F =	0.0027	
				R-squared =	0.8008	
				Adj R-squared =	0.7676	
				Root MSE =	.71741	
aquaticcen~s	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
percentspr~1	-7.36612	1.499991	-4.91	0.003	-11.03647	-3.695774
_cons	7.145683	1.12764	6.34	0.001	4.386447	9.904919

Table B.2: Regression Number EPFD Calls and Impoverished Families

. regress calls fampoverty						
Source	SS	df	MS			
Model	40327776.4	1	40327776.4	Number of obs =	8	
Residual	12343369.4	6	2057228.24	F(1, 6) =	19.60	
Total	52671145.9	7	7524449.41	Prob > F =	0.0044	
				R-squared =	0.7657	
				Adj R-squared =	0.7266	
				Root MSE =	1434.3	
calls	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
fampoverty	1.859169	.4199117	4.43	0.004	.831682	2.886656
_cons	2453.058	1531.727	1.60	0.160	-1294.943	6201.059

Table B.3: Regression EPFD Response Times and Median Home Values

. regress response homevalue						
Source	SS	df	MS			
Model	.572290602	1	.572290602	Number of obs =	8	
Residual	.32299727	6	.053832878	F(1, 6) =	10.63	
Total	.895287872	7	.127898267	Prob > F =	0.0172	
				R-squared =	0.6392	
				Adj R-squared =	0.5791	
				Root MSE =	.23202	
response	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
homevalue	.000025	7.65e-06	3.26	0.017	6.23e-06	.0000437
_cons	2.717076	.5616652	4.84	0.003	1.342731	4.091421

Table B.4: Regression Number of Library Volumes and Total Population

. regress volumes totalpop						
Source	SS	df	MS			
Model	4.1244e+09	1	4.1244e+09	Number of obs =	8	
Residual	2.5134e+09	6	418899110	F(1, 6) =	9.85	
Total	6.6378e+09	7	948254859	Prob > F =	0.0201	
				R-squared =	0.6214	
				Adj R-squared =	0.5582	
				Root MSE =	20467	
volumes	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
totalpop	1.567984	.4997082	3.14	0.020	.3452419	2.790726
_cons	-32060.61	36192.36	-0.89	0.410	-120620.1	56498.92

Table B.5: Regression Number of Neighborhood Associations and Median Home Value

. regress associations homevalue						
Source	SS	df	MS			
Model	119.213081	1	119.213081	Number of obs =	8	
Residual	114.786919	6	19.1311532	F(1, 6) =	6.23	
Total	234	7	33.4285714	Prob > F =	0.0468	
				R-squared =	0.5095	
				Adj R-squared =	0.4277	
				Root MSE =	4.3739	
associations	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
homevalue	.0003602	.0001443	2.50	0.047	7.12e-06	.0007132
_cons	-18.64771	10.58825	-1.76	0.129	-44.55623	7.260809

Table B.6: Regression Number of EPFD Stations and Number of EPFD Calls

. regress firestationsdist calls						
Source	SS	df	MS			
Model	14.7867589	1	14.7867589	Number of obs =	8	
Residual	14.0882411	6	2.34804019	F(1, 6) =	6.30	
Total	28.875	7	4.125	Prob > F =	0.0459	
				R-squared =	0.5121	
				Adj R-squared =	0.4308	
				Root MSE =	1.5323	
firestatio~t	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
calls	.0005298	.0002111	2.51	0.046	.0000132	.0010465
_cons	-.5654004	1.946006	-0.29	0.781	-5.327104	4.196304

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