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IS SUBURBIA VIABLE?

A comparison of contribution and cost for suburban roads.

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Introduction

Over the last few decades the experiment of suburbanization has spread over much of the United States, surrounding every major city and town like a shag carpet of single family homes. However, like all movements there have been doubters, and still today many are not convinced that the trend of individual homes for each family is one that benefits individuals and society as a whole. These groups and individuals have been working to find the problems that plague suburbia and solve them.

Criticisms of suburbia

A single google search of the word suburbia returns a vast number of links to books, videos, reports, blogs, and many other forms of media that are discussing the many issues that have risen over the years of widespread low density developments all over the country. One argument is that the low density, and spacial organization, of developments makes residents dependent on cars for their primary method of transportation, which leads to poor air quality, long commutes, and rapid use of available open space (LeRoy 1). LeRoy also states that outward sprawl removes tax base from inner cities straining budgets and removing investment from city infrastructure (LeRoy 1). With the occurrence of the recent economic downturn attentions have been directed to the level economic influence that suburbs have on their own infrastructure. Studies of the financial viability of low density developments and their infrastructure are becoming more prevalent and seek to understand how much the cost of infrastructure, density, revenue all correlate to each other. One study shows that there is a positive correlation between lot size (density) and cost (Najafi et al 55). In other words, as lot sizes get larger they require more infrastructure to reach from lot to lot and service each home. This means each lot is responsible for higher infrastructure use and cost (Najafi et al 7). However in some areas of the united states the user fees paid by resident go down as the cost for the infrastructure goes up (Najafi et al 7). This brings us to the conclusion that currently there's little connection between the cost individual properties create to be serviced, what they are charged for the use of that infrastructure, and wether or not the charges create enough revenue to cover the cost (Najafi et al 55).

Recently the organization strongtowns.org has been a strong proponent of this idea with the publication of their curbside chat booklet. This booklet claims that too little attention is being paid to the cost of infrastructure maintenance in low density suburban developments and that they require far to much infrastructure for the small amount of revenue they provide (Marohn 26). Now since cities gain from growing their tax base (Marohn 4) they have expanded outward in great bounds to do so. They do this by annexing neighborhoods that have been built out by developers with the promise to maintain the infrastructure built in the new area. Strongtowns refers to this as a ponzi scheme, where towns take short term cash in the form of new tax base in exchange for the long term obligations of its infrastructure (Marohn 5). However the income does not cover the longterm cost of infrastructure and the city must take on more growth to pay for it (Marohn 5,16). This creates a pattern where the city must continue to grow, without end, to pay for its old growth. (Marohn 16). If this is true then it is of great importance to not only verify it but look for a solution as well.

The main part of the issue is the idea that low density suburbs cost so much, yet contribute so little, toward the maintenance of their infrastructure. If this statement is true then it could be a starting point to a whole new understanding of residential development and tax codes, as well as developing a solution to the crisis of underfunded city infrastructure obligations. To research this a review of some of the case studies cited in the Strong-towns booklet must be made. As well as a comparison to other case studies and research performed about this same subject.

Other case studies

In the first case study Morohn looks at the life cycle of a small road serving a low density neighborhood. At first he points out that the street dead ends into the neighborhood, and therefor implies that the street would be mostly used by residents and their guest. The roads construction was paid for by two parties, one half from the city, and the other half from the residents through an assessment. According to the report it will take the city 37 years to recoup the money spent to build the road by receiving taxes from the residents of the neighborhood. However the road will not last 37 years before more money will need to be spent for maintenance. It is also very possible that the road could not last 37 years at all before needing to be replaced (Morohn 17). This makes the bold claim that in this situation more money is being spent on the road then the residents pay for it, creating a deficit.

The next case study Morohn looks at is a road for a medium density subdivision, that again is only used by the residents and their guest. He states that the road has significantly deteriorated and needs major rehabilitation. The cost of the rehabilitation would be $354,000, and with the current tax rate it would take 79 years for the city to make that amount back. This is obviously much longer then the life of the road, just like in the previous case study. He goes on to state that if the city wants to get back the money they spent within the lifetime of the road the tax rate would need to be increased to 46% with an additional 3% rise each year there after. I'm sure the residents of the neighborhood would find this very unsatisfactory, and the city leaders would as well (Morohn 18).

The final case study to discuss by Morohn is that of an urban street in an old part of town. In this area development has stopped and property values have dropped, even below that of areas on the city edges. The maintenance cost of the streets in the neighborhood are $80-$100 per square foot of road surface. However the city only collects $27 per square foot of road surface from the residents of the neighborhood. That means a 300% tax increase would be needed, just to cover maintenance cost. He goes on to say the most practical solution would be to develop the area and increase the value of the land. This would increase the taxes collected without raising the actual tax rate. However Morohn claims that current development models discourage new development in the region (Morohn 20).

After a short review of these case studies it is clear there is a lot of information missing to fully understand the situation that is presented in each. The first of which is how the case studies were selected. Were they chosen at random? through an algorithm? or were they chosen because they showed the intended point of the booklet? Secondly how was the tax revenue given for each neighborhood achieved? Were these numbers the amount of all the property tax contributions or simply a segment determined to be for street maintenance? If it is the later then a lot more questions need to be asked, such as how the amount for maintenance was determined? Doing such is very difficult since in most cities there is no direct link between property taxes paid and the cost they cover.

In 2006 Najafi et al published a study where the cost and revenues of many city services, like roads and sewers, where studied. This study takes a much more scientific approach and documents not only the results, but the methodology as well. The study focused on the relationship between the cost of construction and maintenance of these infrastructure pieces, and how they relate to the lot sizes of the properties that use them. Located in Michigan, data was collected from surrounding municipalities. Like this study much of the information was received form city public works departments. Data like the maintenance cost were adjusted for inflation over the 25 year life expectancy of roads in michigan and 50 years for sewers. Data on road maintenance cost was difficult to find and they had to obtain similar info from surrounding counties. After the case studies were analyzed a linear regression was formed showing the relationship between cost and lot size. However this data could not be compared to property taxes used for road maintenance because no data existed on the subject. It was stated that when lot size get over a certain threshold, sales tax revenue is effected and therefore city income. A comparison was shown for sewer lines however, and it would not be a stretch to assume that roads follow the same or similar pattern. The most important question, of wether or not the cost of the maintenance is covered by the taxes paid in, was not determined by the data and therefore remains unclear (Najafi et al 15-55)

A third study that researched density and cost looks at how increases in lot size and separation in developments increases cost of sewer and water infrastructure. The study builds a hypothetical model to simulate developments and isolate individual factors. Following a cost model the different scenarios are compared and easily shows that as lot sizes go up and density goes down the infrastructure cost go up. This makes an undeniable link between density and cost. The study then says that if the payments made for these services are based on averages and usage, then lower density areas would end up paying less then higher density areas. Even though the cost of the infrastructure used by the lower density areas is higher. This extra cost would be paid for by all residents and force higher density areas to subsidize the lower density ones (Speir 57-65).

When the three different studies are compared it is difficult to take the short statements of Morohn as they are. Najafi et al covers the same subject matter but runs into the issue of being able to fully pull apart the webbed finances of municipalities. Being unable to do so waters down the argument by adding amounts of uncertainty. Speir definitively makes the link between density and cost but is unable to do the same for revenue. Speir also uses an idealized model which only accounts for a few spacial issues that exist in real developments. To properly prove that certain developments are fiscally unsustainable one must have clear evidence without the uncertainty. This is obviously very difficult to do with such complex financial and spacial arrangements.

Methodology

To add to the current body of work available this new research must try to learn from the shortcomings they have. New research must be able to calculate cost and revenue of lower density developments so that they may be compared in a direct one to one fashion.

Reasons for using case studies

Following the model of some of the other research discussed previously, this research is based on case studies chosen from a single region of the United States. However with the complexities of timelines and missing data the road maintenance of the case studies is based on a model. Case studies were chosen because they are existing locations that follow the patterns of current residential developments. This would be difficult to model without overly simplifying the spacial relationship of lots and streets. Creating models of spacial organization might also inadvertently allow the influence of the designer, or leave out important aspects of the neighborhood streets. The model used for the street lifecycle was not designed by a researcher and therefor does not contain the risk of bias.

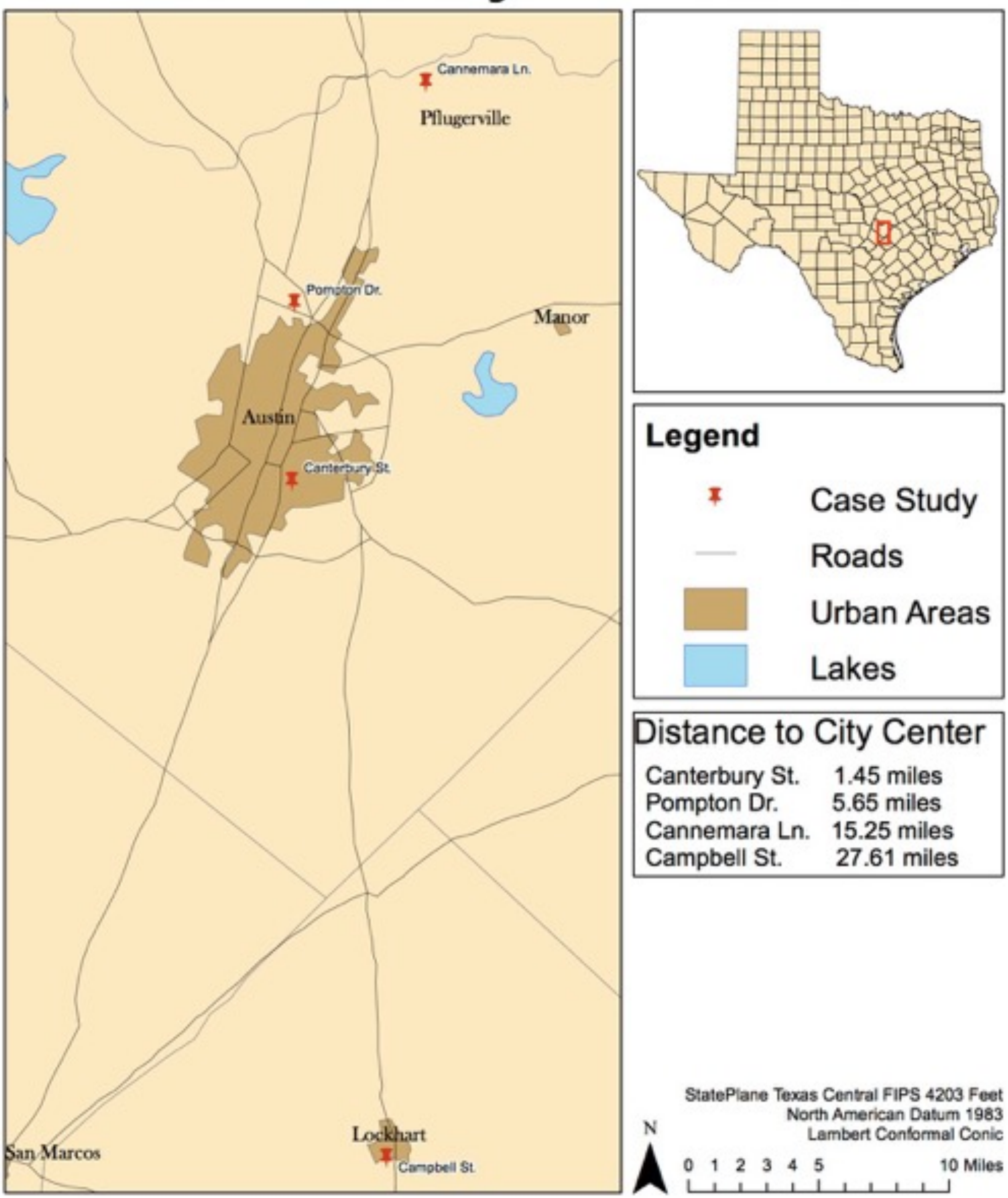
Region selection

This research is located in the Austin metro area. This region has not had previous research of this kind performed and therefor is able to stand as a comparison to previous research on terms of regional differences. This region has also weathered the resent economic crisis well, in that it is still outwardly expanding on the city fringe in a tradition suburban development pattern. This means the result should be mostly free from the influence of economic events like high foreclosure rates and declining home values.

Site selection

From this region four case studies were chosen in very different areas. This was done to explore the wide range of spatial situations within this one geographic region. Each case study location was located at a different distance from the center of the city

Case Study Locations



of Austin. The first starting near the downtown and moving outward with the last location in a small town a short drive from Austin city limits. Two of the four locations reside within the limits of the city of Austin while the other two are not. Austin receives two case study locations because of its size and composition of different development types. Pflugerville was chosen because it is a separate township from Austin, but is connected with seamless developments blurring the line between the two. Pflugerville also has another town on the other side, making it part of the seamless growth from the city and not the very end. Lockhart is the most different from the two because it is a town separated, not only by boundaries, but density also. Lockhart therefore has not had growth forced upon it by it's proximity to Austin. Rather it has experience growth on its own terms.

To select streets from the many within the transportation web of the area, a few criteria were chosen that all the streets should meet. This helps reduce the number of differentiating factors amongst the different case study locations. The first site requirement was, the street must not be a main arterial street. In other words only two lane, two way streets, within residential neighborhoods could be chosen. Also the street must not be an entrance or exit to the neighborhood. This was very easy to differentiate in the newer regions where cul-de-sac plans limit the number of entrances and exits to the neighborhood. However in the older parts of town where grid plans were used almost all the streets are such. In this situation streets that have had obvious expansion, contain businesses, or that connect directly to main streets are left out. Only streets that still function as traditional suburban streets lined with single family homes could be chosen. This requirement not only reduces the body of possible locations, but also eliminates roads that get traffic significantly higher then those used primarily by residents of the street and their visitors. It also limits the streets to those of a single development type, removing the differences that come with the presence of commercial and industrial properties.

The next requirement is that the average home value on the street must be within $5,000 of the median home value for the city in which it resides. This requirement is mostly for the sites in municipalities that pay for their streets maintenance through property taxes. By only selecting streets that are near the median home value it places the streets on an even playing field, where otherwise street with high value properties would provide very high revenue for the city and the streets with low value properties would not. This is the only way to eliminate the influence of differences in property values. In order to ensure that the average home value of the street is accurate streets with fewer then five homes were also not eligible for selection.

To find streets that meet these criteria first the median home value of the city must be found. This is done with census data form the most recent census. The range around this value is placed in an online realty website that searches for homes for sale within that price range. Streets that meet the other criteria around homes that are for sale are noted as possibilities. This process is then repeated for each desired part of town, close to downtown, farther from downtown, Pflugerville, and Lockhart. Then the average home value for each street is found using property values listed on both the Travis County Appraisal District's website and Caldwell County Appraisal District's website. The first street that is within the $5,000 range from the median home value is selected as the case study.

Site Maintenance Revenue

In the three cities in which case studies are selected, two different financing methods are used. The city of Austin follows a user fee method where each resident is charged a fee designed to represent the use they get from city roads and bridges. The fee goes up or down based on the type of property, such as single family or duplex, and the number of residents. Since census data is not available on a house by house basis, and the city does not publish user fee data the way they do property tax info, a method had to be formulated to estimate the number of residents on each street. The first step was to find the average number of people per household for the city of Austin. This was published again in the 2010 census quick fact data at 2.35. By multiplying this number by the transportation user fee amount, then by the number of houses on the street, an estimation for monthly payment the street makes toward transportation was created. This number can then be extended on to the desired length of time. In the case of this study 75 years.

$7.29 x 2.35 people x # of houses x 75 years = total contribution

The cities of Pflugerville and Lockhart on the other hand pay for road maintenance from money acquired through property taxes, fees, sales taxes, grants, and other taxes. This makes it very difficult to quantify the exact amount of money paid toward road maintenance for each property. To make quantifying each homes contribution possible some assumption had to be made. The first of these is that all the street maintenance is paid for with property tax money. This eliminates the other revenue sources that do not come from the property owners and cannot be easily accounted for. The second is that the relationship between the property taxes and street maintenance cost is the same for both the property owner and the city. Which means that it must be assumed that city revenue and expenditures are the same. For example in the city of Pflugerville in 2011 53.3% of the total city revenue was from property taxes, and 8% of the total expenditures was for street maintenance (Pflugerville vi,viii). Assuming that the cities expenditures and incomes are the same, 15% of the property tax income goes toward street maintenance. This percentage can then be applied on the individual level so that 15% of each home's property taxes is counted as going toward street maintenance.

Pflugerville
sum of property values x .599% property tax x 15% road maintenance = total contribution

Lockhart
sum of property values x .709 property tax x 18.96% road maintenance = total contribution

Site Maintenance Cost

To estimate the maintenance cost of each street a model was obtained from the city of Austin road and bridge department, or more precisely two models were obtained. The first is intended for use on roads that were well built and expected to hold up well with minimal maintenance. The second model is intended for roads that were poorly constructed and require more work to maintain. For this study the second model will be used for several reasons. The first is that the original construction quality of the road cannot be verified. The second reason is that since all manner of other utility lines lie beneath the road surface, and street maintenance and repairs are often postponed to correspond with those maintenance schedules. This prevents the road from being dug up after it has been repaired, but exposes the road to additional wear and tear.

The model selected spans over a 75 year period, and list the different maintenance projects that need to be done in order to get the full life from the road surface. This schedule includes projects such as a seal coat, thin overlay, thin overlay with edging, and reconstruction or rehabilitation. Each of these steps is quantified in cost per square yard. To find the size of the road paving for each study location sophisticated GIS software is used. A satellite photo of each street is obtained and zoomed to the same level. Then the street pavement is traced 5 times and the area recorded. This produces 5 different areas for each street. These are then averaged to produce a more accurate estimation to the actual area of the street pavement. Then the area is multiplied by the cost of each treatment, and by the number of times that treatment is used during the 75 year model. Adding the cost together provides a total cost the street might incur during its life cycle.

YEAR	MAINTENANCE	COST
0	construction	$0 built by developer
8	seal coat	$2.8/yd^2
15	thin overlay	$5.00/yd^2
25	seal coat	$2.8/yd^2
33	thin overlay with edge	$7.00/yd^2
40	seal coat	$2.8/yd^2
45	thin overlay	$5.00/yd^2
53	seal coat	$2.8/yd^2
60	thin overlay with edge	$7.00/yd^2
68	seal coat	$2.8/yd^2
75	reconstruction	$70.00/yd^2

Methodology Downsides

However well researched these models may be they are not without flaws. Any model requires making many assumption that may or may not be accurate in real life. In terms of the maintenance revenue model many assumptions are made because of the complexity of the system. Many revenue sources come in and many expenditures go out. This makes it impossible to follow a single stream of money as it flows from one household to the street outside. In terms of the Austin case studies the estimation of the number of residents creates a margin of error that is undeterminable.

For the maintenance cost model a number of possible errors also create difficulties. First is the use of a single model for all the locations despite what city they reside in. On one had it creates a continuity that makes comparison between the different locations much easier. However it leaves out he fact that different cities, even very close ones, might have different maintenance schedules and procedure cost. The next issue comes from the fact that, despite traditional wisdom, street degradation is mostly effected by the quality of construction and the weather, more so than traffic volumes. Since weather is very unpredictable, and effects different soils in different ways, roads can have various levels of quality even in close areas. In this study all the roads are on clay soil, though the exact composition may differ, and the changes in the weather should be close enough to make differences minimal.

Another fault is that studies like this do not incorporate externalities that could cause the cost of other services, incurred by the higher density developments they promote, to go up such as traffic lights, police, and waste collection (Ladd 276). This is a difficult endeavor to do because of the complex ways these services function. They can change with changes in density, creating an entirely new cost structure. For example the number of cops may need to be increased as cities become more dense but in these denser areas more people walk and bike for transportation so fewer patrol cars are needed to equip those officers. In that circumstance then the cost of each cop is vastly cheaper then each cop needed in a lower density area. Therefor these external cost are not discussed.

Austin

The city of Austin lies in the along the Colorado river in central Texas between San Antonio and Dallas. It is the capitol of Texas and was established in 1840 (Encyclopedia Britannica), when the capitol was moved from Houston. Home to 790,390 residents it is the 4th largest city in the state (2010 Census). Austin is famous for being the live music capitol of the world and having a population that is unique from the other parts of the state. When growth and popularity threatened this, the phrase "keep Austin weird" became a popular saying. Development around the city falls in mainly the north and south directions, along Interstate 35 that connects Austin to San Antonio and Dallas. The median household value in Austin is $200,000 (2010 Census). Both case studies within the city of Austin average within $5,000 of this value.

- Canterbury St.

This Street lies on the east side of downtown across the I35 freeway. This area is an older part of town and is very close to the city center. The area is still mostly single family detached homes, although things are changing rapidly with new larger homes and condos going up where small bungalow houses were before. The street

Case Studies

that was chosen for the case study is lined with only single family homes and the average home value on the block is $200,624, very close to the cities median home value.

Using GIS software and the technique previously described the area of street pavement was found to be 1,919 square yards. Using the life cycle that was provided by the city, the life cycle cost of the street with this size was found to be $207,344 for the entire 75 year life of the street. This can be compared to the amount of street per house which is received by dividing the total street area by the number of properties. This is not the most ideal way to look density but rather a quick estimation for the sake of comparison. Canterbury street has 87.27 square yards of pavement per house. This is the lowest ratio of all the case studies, which follows the conventional thought of its location and construction period.

As stated previously the city of Austin finances road maintenance through a user fee that is added to the electric bills of city residents. This fee is a set amount per resident per month for the house hold. The fee for single family housing is $7.29 per person. Over a 75 year period it is expected that the residents of Canterbury Street in Austin have paid $277,530 toward road maintenance.

When comparing these numbers they are close, and due to the number of assumptions that had to be made, the margin of error is high enough that they could be very close or even farther apart. However the result of the other case studies should shed more light by creating a trend.

CONTRIBUTION	COST	DIFFERENCE
$277,530	$207,344	$70,186

• Pompton Dr.

This case study consist of a cul-de-sac at the end of a residential street on the north side of Austin, just south of 183 freeway. This area was built in the 60's and 70's but the case study section of Pompton Drive was built in the early 60's. This places the street still within the early part of the suburban expansion that is still dominant today. Homes on the street still look as they would have then.

Again using GIS software the street was found to have a paving area of 1,475 square yards. This makes it the smallest of all the streets selected. This area was then placed in the life cycle model provided and the resulting cost came out to be $159,384 for the 75 year life of the street.

This street, still residing inside Austin city limits, posed the same problem that the previous case study did when it comes to maintenance contributions. Therefore the same model was taken to approximate the amount paid by the residents of the street. Following this method of estimation this street would pay $185,020 toward street maintenance.

This street also shows a similar cost revenue relationship as the previous Austin case study. The amount of maintenance contribution is higher then the cost required by the street, but only by a small amount, over the 75 year period. With the additional knowledge of the limitations in methodology it is reasonable to assume, once again, that these numbers relationship could really be slightly different.

CONTRIBUTION	COST	DIFFERENCE
$185,020	$159,384	$25,636

Pflugerville

The city of Pflugerville lies along the I35 corridor on the north side of Austin. It is the first of several other suburban cities that extend out from Austin in this direction. Incorporated in 1960 (City of Pflugerville) Pflugerville is a fairly recent development, making it very different from the other two cities in this study. However growth has been quick and the population is currently 46,936 (2010 Census). The median household value in Pflugerville is $160,100 (2010 Census), which is significantly less then Austin.

- Connemara Ln.

This street is a double ended cul-de-sac that lies at the end of another street in a T shaped arrangement. Nineteen properties surround the street except at one end where trails connect to the green belt. The area is relatively new having been developed in the early 2000's. The development patterns are those still used today with large neighborhood developments connected by split median streets. Most are fairly new since Austin expansion has just recently reached this far out. Although growth has been very quick the town still feels small and works hard to retain its small town image.

The GIS software produced a street area of 2,188 square feet. That makes it the second largest of all the case studies in both square footage and number of properties. After calculating the life cycle cost of this street, with the given model, the total cost of the 75 year life span comes out to be $236,343. This is higher then the previous two case studies. However the street has 123 square yards of road surface per house on the street. This is not the highest so far, which goes against conventional wisdom, but the this example has the added benefit of cul-de-sacs at both ends.

As previously stated the city of Pflugerville does not use a user fee as the city of Austin does. Rather the budget for street maintenance is incorporated with the rest of the cities funding. This means the method of pulling a percentage from each homes property taxes was used to find the total revenue the city makes from the street for road maintenance. The summed contribution total for all the properties comes to $202,113. This accounts for the total 75 year life span that the street is expected to last.

When the two numbers are compared this is the first case study to have a lower expected revenue then cost. Considering that the numbers are very close, the margin of error could bring the two closer together. However being farther from city center of Austin, this town should have more shared road surface between neighborhoods. Primarily because the developments close to the city are older and denser, using a grid plan to allow traffic to filter through rather then concentrate on large streets that have been difficult to add in later. Pflugerville on the other hand was developed with large arterial streets part of the city plan and their vast street surface is paid for with the same fund as the other streets in the city. If all the small residential streets require all or most of their contributions for maintenance then these communal streets are left unfunded.

CONTRIBUTION	COST	DIFFERENCE
$202,113	$236,343	-$34,230

Lockhart

Lockhart is a small town that lies to the south east of Austin. Along this direction of the I35 corridor development does not stretch as far as it does to the north. This leaves a gap of little to no major development between Austin and Lockhart. Being even slightly isolated from Austin means that the population is lower, 12,698 (2010 Census), and the median home value is also, $106,600 (2010 Census). However it is able to drive a large amount of traffic from the surrounding cities to visit its many famous BBQ restaurants.

- Campbell St.

The case study here is a strait segment of street sandwiched between two others. It lies on the southern side of Lockhart, away from the busier main streets that go in and out of town. The homes on the street were built in the late 50's and early 60's and the streets are laid out in a grid pattern with streets still connecting to each other and few cul-de-sacs.

The street area method resulted with this street containing 3,091 square yards of road surface. This is the largest of all the streets looked at in this study. When this was placed in the life cycle model the resulting cost was $332,760 for the expected 75 year lifespan of the road. Being the largest road so far this street has the highest cost. However it also has the highest amount of road surface per house. This means that each house is responsible for the more road surface then any of the other case studies looked at in this study.

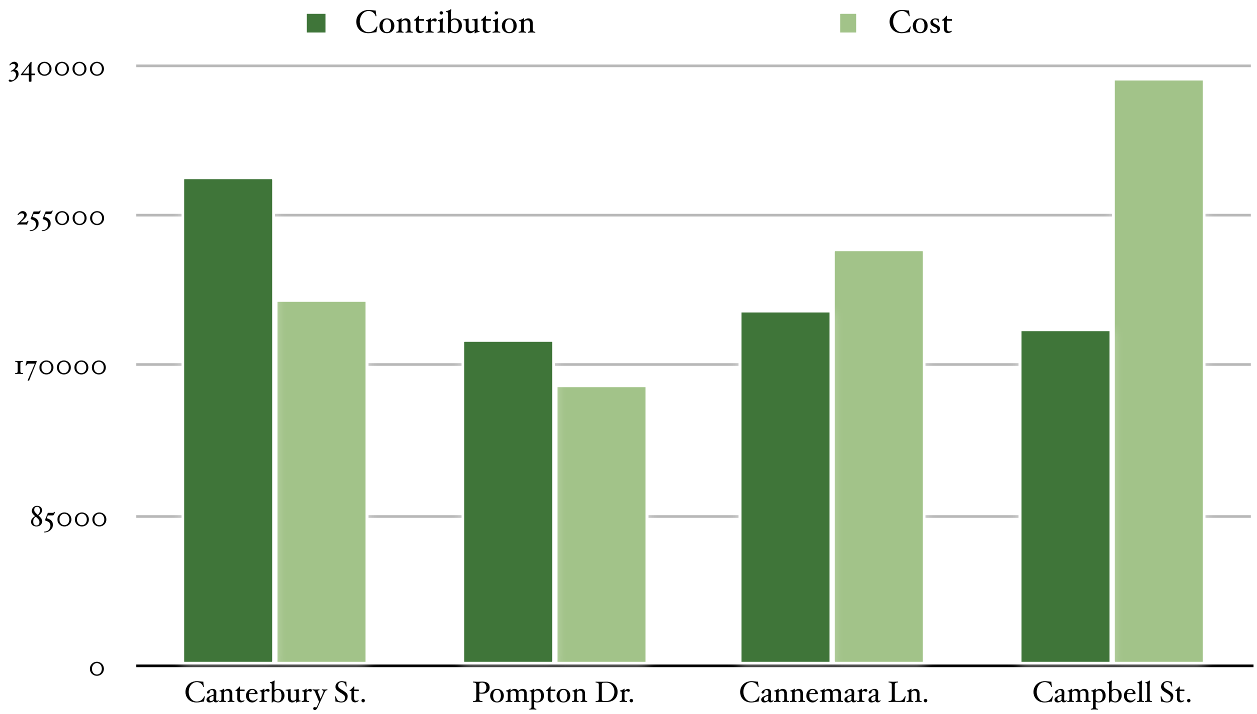
Like the city of Pflugerville that was looked at previously, Lockhart pays for road maintenance through the property taxes that each home owner pays. Following the same method as was done for Pflugerville the maintenance contribution was estimated for each property. The sum of those contributions was then multiplied times the 75 years that the street was estimated to last under ideal circumstances. This contribution comes out to be $191,378.

This number is obviously much less then the amount required to maintain the street. With this street the margin of error is not large enough to bring these two numbers closer together. It is clear that this street, having the most street surface per house, and an average home value being so low, is not possible for the property taxes to cover the cost. Prior to beginning this research this topic was discussed with the Finance Director for the city. He explained that the home values in the city were very wide spread, and since the town was so small home values can change drastically over just a few blocks. With this, and the finance method in mind, some areas are able to pay for their infrastructure while others cannot. He also stated that the city relies on commercial properties, which often require fewer services and pay higher taxes, to make up the difference for those lower valued properties.

CONTRIBUTION	COST	DIFFERENCE
$191,378	$332,760	-$141,382

Data comparisons

When all the data is compared it is clear that covering the cost of infrastructure is very close for these lower density developments. Of the four case studies used in this research only two of them contributed enough to pay for the estimated cost their street would acquire. Those two streets were inside the Austin city limits and paid in the form of a transportation user fee. This fee creates a direct link between the city residents and their street usage. The two streets that did not meet the estimated cost both paid through their home property taxes. This makes it difficult connect properties and their infrastructure. When the street surface per house was compared it was not as clear. The streets that had the most surface per house were not always the streets that had a deficit.



Conclusion

In the end It is truly difficult to claim if low density developments are truly sustainable. It is clear that the line is very close and changes need to be made to more fully understand the nature of this issue. The first issue brought up in this study was that the data available in public records is not detailed enough to understand the true relationship being studied (Najafi et al 8). Especially in the towns where many services are paid for through property taxes, it is clear that since no direct connection can be made between cost and contribution, there is no way to determine what kinds of developments are financially viable. No longer can city budgets merely be balanced but they need to be broken down into itemized taxes and cost. By doing this potential finance issues can be seen before they create a deficit problem. As Levinson put it "The financing system must operate within a structure that gives ownership of infrastructure to those who paid for it" (Levinson 154).

Another point brought up by Morohn is that cities are not obligated to take over the maintenance of the infrastructure for whatever a developer builds (Morohn 37). Doing so leads to developers building what makes them money and dumping the cost on the city. Cities need to be more proactive in knowing what kinds of developments they can afford to maintain and communicate those needs to developers. By doing so both parties can operate within the realm of financial viability.

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