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Is a Decline in Parks Provision Inevitable in Fast-Growth Cities? Evidence from Texas

John L. Crompton,¹ Gary D. Ellis ¹

¹Department of Recreation, Park, and Tourism Science, Texas A & M University, College Station, Texas
Please send correspondence to John Crompton, j-crompton@tamu.edu

Abstract

The study explored whether fast-growth cities in Texas were able to retain their existing level of park supply over a 12-year period between 2008 and 2020. Directors of 50 Texas cities were surveyed in each of those years. Analyses showed the ratio of parks per thousand people was significantly lower in 2020 than in 2008. Correlation results suggested the higher the rate of growth, the more challenging it is for cities to retain their existing levels of service. The negative impact of growth was significantly mitigated in cities that had a parkland dedication ordinance. The results suggest there is a significant probability there will be a decline in parks provision in fast-growth cities, but the finding that there was no decline in 30% of cities in this sample offers a source of encouragement.

Keywords

Park acres, parkland dedication, fast-growth cities, significant decline, tax increases.

Introduction

A pervasive and beguiling myth in the U.S. is that population growth enhances the tax base, keeps taxes low, and so is a key element in a community’s prosperity (Kinsley & Lovins, 1995). It resides deep in the American psyche. In many fast-growth cities, this myth is perpetuated by real estate interests who not only support the election of development-friendly public officials, but also often control, or have the funds to dominate, the loudest media megaphones in a community. Many of these interests perceive that the greater the growth, the more profitable their businesses will become. In effect, they serve as an “urban growth machine” whose momentum is difficult to slow (Molotch, 1976). As a result, “some local governments appear to be on “growth ‘autopilot’...whose primary function is to build roads and infrastructure and to provide development services for an ever-expanding mass of subdivisions, industrial parks, and shopping centers” (Fodor, 1999, p. 11).

However, the reality is that growth usually results in increased costs to local taxpayers. (American Farmland Trust, 2016; Fodor, 1999), and/or declines in a commu-
nity’s quality of life. The mathematics inherent in fast-growth cities makes an increase in costs to existing taxpayers inevitable. If a city’s population increases by 20%, the amount of property and sales taxes those new properties generate is far below the amount needed to pay for the infrastructure costs their developments create. Rather, most of these costs are paid for by the other 80% of the population through the issuance of general obligation bonds or certificates of obligation. This logic was verified by an analysis of Texas cities that concluded:

Texas, with an economic performance in recent years that has outpaced the rest of the country...has the second-highest local debt per capita as cities and school districts have gone on a borrowing spree to maintain or expand amenities...

Over the past decade, the growth in local debt in Texas has far outpaced the growth in population, state records show. Across Texas cities, tax-supported debt has grown 78% [between 2004 and 2013], while the population grew by just 18%. It’s a similar story with the state’s counties, with tax-supported debt held by counties growing by 58%.

The growth in debt is most pronounced for the state’s school districts. Between 2004 and 2013, the student population at Texas public schools grew 14%. During the same period, voter-approved tax debt for school districts has grown 97% from $32.6 billion to $64.2 billion (Batheja, 2014).

These Texas findings are reinforced by a study of the 100 largest U.S. Metropolitan areas that reported the benefits commonly attributed to growth by the “growth machine” are not supported by empirical findings:

Faster growth rates are associated with lower incomes, greater income declines, and higher poverty rates. Unemployment rates also tend to be higher in faster growing areas... The 25 slowest growing metro areas outperformed the 25 fastest growing in every category (Fodor, 2012, p. 220).

This exposure of the myth of growth’s attributes has two consequences. First, it explains why almost every fast-growth city reports substantial increases in property taxes. Second, existing taxpayers often are reluctant to approve the magnitude of property tax increases needed to pay the full costs of new infrastructure. Their reluctance results in declines of levels of city services, such as provision of parks.

There is abundant anecdotal evidence of the vulnerability of parks when a city’s budget is in a state of crisis. Recent examples of cities selling parks include Kansas City, Missouri (D’Marko, 2019); Lawton, Oklahoma (Wilson, 2019); Milwaukee County, Wisconsin (Kilmer, 2019); Wayne, Michigan (Veseljak, 2019); and Stuart, Florida (Samples, 2018). Given that parks are widely viewed as comparatively discretionary activities, it seems probable they would be especially likely to exhibit a reduced level of service in fast-growth cities which struggle to find the resources to maintain existing levels of government services.

In addition to examining changes in the supply of parks, a second purpose of the study was to explore whether the existence of a parkland dedication ordinance in a city impacted level of park provision. Parkland dedication is imposed by many local governments as a condition for permitting development. Conceptually, it is a type of user
fee designed to ensure that those who create the demand for additional parks pay for them. Such ordinances are an opportunity for governments to alleviate the magnitude of increased taxes and reduced levels of provision in fast-growth cities.

The adoption of parkland dedication ordinances accelerated after the tax revolt movement of the late 1970s and 1980s, as governments engaged in “load shedding” and moved more of the costs of growth away from taxpayers and on to developers. For example, in Texas only five cities had these ordinances before 1985, but in the following 10 years another 20 cities adopted them (Crompton, 2010). In a majority of states, local governments are also authorized by statute to impose impact fees for parks and recreation, but Texas cities are specifically prohibited from using this form of exaction.

In many communities, the political mantra is dominated by fiscal conservatism. Operationally, this generally means elected officials will not support increases in taxation. Because parkland dedication requires developers to provide new or improved park facilities for new residents near the homes they are creating, the burden on taxpayers is reduced which is consistent with this prevailing political climate (Crompton, 2020). Given this expectation, it was anticipated cities that had an ordinance would be more likely to effectively meet the challenge of retaining their level of provision in fast-growth contexts.

In addition to increasing the acres of public parks, there are four other capital investments that may facilitate public park-like experiences and, hence, absorb some of the demand for parks created by new residents. First, investments in renovations, artificial playing surfaces or floodlighting may be at least partial substitutes for additional park acres. Second, the park acres metric does not capture cities’ investments in recreation facilities. Third, the data do not include parkland owned by a city outside the city’s boundaries. Fourth, some parkland is developed within subdivisions, but is privately owned and maintained by a subdivision’s HOA and its use is restricted to residents of the subdivision. This reflects a common clause in parkland dedication ordinances that awards credit to developers (usually varying between 50% and 100% of their dedication fee) for supplying facilities for their residents on site. It is assumed that the extent to which these investments absorbed new public park demand between 2008 and 2020 was consistent with their absorption of demand before 2008.

The two objectives of this study were to determine whether fast-growth cities in Texas were able to retain their existing level of park supply between 2008 and 2020, and to test if the existence of a parkland dedication ordinance in a city impacted level of provision. Three hypotheses were tested:

H1: The 2020 park acres per thousand residents’ ratios will be significantly smaller than the 2008 ratios.
H2: Park acres per thousand residents will decrease as rate of growth increases
H3: Parkland dedication ordinances decrease the rate of loss of parkland over time.

Method

In 2008, a questionnaire was sent to park and recreation directors of all 117 Texas municipalities with populations over 14,000, and 83 of them responded (71%). The size of each city was derived from the Census Bureau. Directors were asked to confirm the population of their cities and report the number of acres of parkland their city owned (both developed and undeveloped). Directors also reported whether their city had a
parkland dedication ordinance. In 2020, the same two questions were included in a survey sent to the same 83 cities’ parks and recreation directors, and 50 of them (60%) responded. Responses to the two surveys were used to calculate the growth rate of each city and the change in the ratio of park acres per thousand residents.

**Results**

Responses from the 50 cities who returned questionnaires from both surveys are listed in a table that is available from the authors. Most of the cities are extraordinarily fast-growth cities; the average growth rate over the 12-year period was 34.44%. None of the 50 cities reported a decline in population. The city with the smallest growth was Harlingen (1.6%), and the city with the largest growth was Leander (144%). The differences in park acreage ratios between 2008 and 2020 were calculated for each city. Grand Prairie which grew by 32.4% lost the most acreage per thousand residents (7.25 acres). The city with the largest growth in acres per thousand was Sugarland (6.80 acres).

Table 1 summarizes the data used to test Hypothesis 1: The 2020 park acres per thousand residents’ ratios will be significantly smaller than the 2008 ratios. While park acres per 1,000 population declined in 35 (70%) cities, it increased in 15 (30%) of them. The percentage changes were relatively small, and large cities were most prone to report lower levels of acreage loss. The overall decline across the 50 cities is statistically significant (loss of .88 acres per thousand; \( t_{24} = -2.14, p < .05, \eta^2 = .16 \)). Hypothesis 1 was supported; park acres per thousand ratios in Texas were significantly smaller in 2020 than in 2008.

**Table 1**

<table>
<thead>
<tr>
<th>City Size</th>
<th># With Increased Ratio</th>
<th># With Decreased Ratio</th>
<th>Range of Ratios</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large (&gt;135,000)</td>
<td>3</td>
<td>14</td>
<td>4.96% to -7.25%</td>
<td>-2.29</td>
</tr>
<tr>
<td>Medium (50,000-134,000)</td>
<td>8</td>
<td>12</td>
<td>6.8% to -5.94%</td>
<td>0.86</td>
</tr>
<tr>
<td>Small (14,000-49,000)</td>
<td>4</td>
<td>9</td>
<td>5.95% to -4.40%</td>
<td>1.55</td>
</tr>
<tr>
<td>Total Sample</td>
<td>15</td>
<td>35</td>
<td>6.8% to -7.25%</td>
<td>-0.45</td>
</tr>
</tbody>
</table>

Hypothesis 2 proposed that park acres per thousand would decrease as city population growth increases. Data associated with that hypothesis, organized by city size, are presented in Table 2. The proportion of cities with decreased acres over the 2008–2020 period increased as the magnitude of growth increased. The Pearson correlation between change in acres per thousand residents and growth was not statistically significant (\( r = -.207, p = .075 \)). However, the negative slope is consistent with the hypothesis that the higher the rate of growth, the more challenging it is for cities to retain their existing level of park provision. The relation was not statistically significant at \( p < .05 \) possibly because of the small \( (n = 50) \) sample size.

Hypothesis 3 proposed that the presence of a parkland dedication ordinance mitigates the effect of growth on acres of park land per thousand residents. We tested that hypothesis by constructing linear models of the regression of park land per thousand on growth separately for cities with and without parkland dedication ordinances. We also constructed scatterplots of the relation for both types of cities (Figure 1).
Consistent with Hypothesis 3, the slope for the scatterplot of cities that do not have a parkland dedication ordinance is negative and steeper than the slope for the cities that do have a parkland dedication ordinance. The correlation coefficient for the cities without the ordinance is \(-.592\) \((p<.05)\), compared to \(-.096\) (NS) for cities that do have a parkland dedication ordinance. The difference between these correlation coefficients is significant (Fisher’s \(z=1.865, p=.031\)). Thus, we conclude that parkland dedication ordinances mediate the effect of growth on park acres per resident.

The magnitude of the effect of parkland dedication ordinances can be estimated in acres per thousand residents for cities with different growth rates. The regression equation with both types of cities in the model is

\[
Y \text{ acres'} = -0.473 + 0.469(\text{Ordinance}) - 0.020(\%\text{Growth})
\]

“Ordinance” is a binary variable; 0 indicates no ordinance and 1 indicates the presence of an ordinance. The average rate of growth (50th percentile) of cities was 34.44%. If a city with that rate of growth had a parkland dedication ordinance, the regression equation results in a predicted loss of .69 acres per thousand residents. For a city with the same growth rate and without a parkland dedication ordinance, 1.16 acres per thousand residents would be lost, an increase in acres-lost of 68%. For cities at the 25th percentile of growth rate (11.93% growth), the predicted loss of acres per thousand is .24 for cities with the ordinance and loss of .71 acres if no ordinance is present (60% change in acres lost). For cities at the 75th percentile (46.90% growth), the predicted acres lost are .94 and 1.41 for cities with and without parkland dedication ordinances, respectively (50% change in acres lost).

The regression equation cross-validated reasonably well despite the small sample of cities \((n=50)\). Double cross-validation was conducted. The cities were randomly divided into two groups. The regression equation was calculated for each group, and the resulting equations were used to predict acres lost per thousand residents in the opposite group. The variance explained by the equation in the full sample \((n=50\text{ cities})\) was .049, compared to .054 and <.001 in the two random samples.

### Discussion and Management Implications

The analyses showed that when measured in acres per thousand population, the supply of parks declined in this sample of fast-growth cities over the 12-year period. The data in Table 2 are consistent with Foder’s (2012) conclusions that the greater the

<table>
<thead>
<tr>
<th>N Cities</th>
<th>N Increased Ratio</th>
<th>N Decreased Ratio</th>
<th>Proportion With Decreased Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>40% +</td>
<td>14</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>20-39%</td>
<td>12</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>10-19%</td>
<td>14</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>&lt; 10%</td>
<td>10</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Total Sample</td>
<td>50</td>
<td>15</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 2: Number of Cities by Rate of Growth with Increased and Decreased Ratios.
Figure 1

Relation between Difference in Acres per thousand residents and Growth for Cities with and without Parkland Dedication Ordinances
rate of growth, the more likely it is that the ratio of parks/1000 will decline. Although the testing of Hypothesis 2 showed this relationship was not statistically significant ($p=.075$), this was possibly attributable to the small sample size.

Figure 1 indicated that parkland dedication ordinances made a significant positive difference in ameliorating the negative impact of growth. The findings are similar to those reported in a study of park exactions in 12 large cities (Harnik & Yaffe, 2005). Like this study, the authors concluded that park exactions frequently failed to increase the parks estate: “Most cities do not place a particularly high priority on these efforts” (p. 1) and “most are not achieving the level of land acquisition that had been contemplated and predicted” (p. 1). However, also like this study, they found ordinances did ameliorate the level of decline: “On the whole, developer impact fees do seem to result in land acquisition” (p. 1).

We recognize that the presence of a dedication ordinance per se may not be the only reason explaining the mitigation of a lower ratio. Rather, it may be symptomatic of a deeper level of support for parks than is present in non-ordinance communities. This may be manifested in multiple ways: More effective advocates, major foundation funding from within the community, key supportive council members, innovative funding methods that do not draw on the general fund but use other income streams, and so on. If parks are deemed central to a community’s well-being, then the ordinance is likely to be accompanied by other positive actions.

Nevertheless, parkland dedication has the important attribute of being a dedicated source of capital funding, meaning that it is not dependent on general taxation. The study’s results confirm the potential of these ordinances for sustaining the park supply, while mitigating the need to increase taxes. Despite their apparent centrality to the prevailing political philosophy, the results indicate these ordinances are underutilized even though they are well entrenched as established law.

Over the past 50 years there has been an incremental regulatory broadening of the exaction demands that may be placed on new developments. The courts have shown increasing judicial acceptance in principle of cities’ roles in growth management. They have generally concurred with communities passing increasing amounts of the costs of growth to the residences that created the costs. The rules are continually being liberalized so “new normals” emerge as the boundaries are pushed further and further. This has been manifested over the past two decades by such changes as expansion of the types of parks that are eligible, the inclusion of improvement fees to develop dedicated raw land into a functioning park, the increased size of nexus zones, the inclusion of reimbursement clauses, and the tighter specification of developer credits.

An earlier study in Texas concluded:

The disparity is striking between the current level of park provision and the parkland dedication requirement. If the criterion of “rough proportionality” was being applied, then these ratios should be identical. These comparative data indicate that based on the Supreme Court’s ruling, in almost all Texas cities the current parkland dedication requirement is much too low. (Crompton, 2010, p. 76).

A decade later, many elected officials remain unaware of the potential of parkland dedication ordinances to increase park funding. Indeed, The Texas Municipal League’s publication, Revenue Manual for Texas Cities claims, “This manual addresses nearly
every known source of revenue available to Texas Cities” (2019, p. 1), but parkland dedication ordinances are not discussed or listed in the publication.

The difficulty of securing tax funds for park acquisition is exacerbated by similar difficulty in securing land donations for this purpose. Historically, donations were a primary source of park lands for many agencies, especially in the 1950s, 1960s, and 1970s when the highest marginal federal income tax rates were 91% from 1951 through 1963, and 70% from 1965 to 1980. In contrast, the current highest marginal income tax rate is 37%. This loss of incentive to donate land for parks was accentuated in the 2018 Tax Cuts and Jobs Act which effectively removed estate taxes and reduced the marginal rate on corporate taxes from 37% to 21%. While many Americans welcome these lower taxes, such legislation has the effect of reducing the tax “write-off” for potential donors of park land making it much more difficult to secure such donations. The challenge in soliciting parkland donations is further exacerbated by the ongoing challenge of funding maintenance which has caused some agencies to require an endowment for maintenance before they will accept a land donation.

It has never been more critical (and opportune) than in the current environment to address the underutilization of the potential of parkland dedication. Securing land for new parks necessary to sustaining the quality of life in fast-growing communities is likely to become increasingly challenging. The parks field is currently confronted with the probability of major budget cuts beyond anything it has experienced since the dawn of the tax revolt in the late 1970s and 1980s. The primary sources of revenues for most municipalities’ general funds are property and sales taxes. Budgets have been drastically reduced in response to the Covid19 pandemic. The inevitable response of cities has been to cut services and delay consideration of capital projects.

The response of the city of Dallas to the new reality is probably indicative of the difficult future for the parks and recreation field. In May 2020, the city manager announced 472 employees were furloughed: 235 from parks and recreation, 187 from libraries, and 33 of the 60 staff in arts and culture. He stated: “These furloughs do not impact essential workers or our ability to deliver core services to the residents of Dallas” (Dallas Morning News, 2020). Clearly, among most senior managers and elected officials, parks are not considered “essential” services. Consequently, there is little doubt that both the operating and capital budgets of park and recreation departments will be subjected to major cuts in the immediate future.

Among municipalities that have an ordinance, the earlier Texas study (Crompton, 2010) showed that the specified exactions invariably are only a fraction of the amount which could legally be required. This is primarily attributable to opposition from the development community. Ironically, this sometimes provides opportunities to leverage dedication funds, because the ordinances are legally required to specify a reasonable time by which the funds must be expended. For example, an ordinance requirement to spend exaction fees in (say) 5 years not only provides an incentive for jurisdictions to act in a timely manner, but also may effectively leverage those funds since they typically have to be supplemented by other funds in order for land to be acquired and new parks to be developed.

The primary management implication and challenge is to generate awareness among constituencies of the opportunity cost of not using the full potential of dedication ordinances. There are three main constituencies: City managers/planning departments, support groups and taxpayers, and elected officials.
In most communities, parkland dedication ordinances are under the purview of planning departments since dedication requirements are a component of a city’s subdivision regulations. However, their implications are clearly manifested in the operational sphere of park and recreation departments, which are most cognizant of the consequences of not implementing them fully. Their unrealized potential suggests park and recreation directors should take a more assertive proactive role in making city managers and planning officials aware of the full potential of expanding park dedication fees.

Most residents have probably never heard of parkland dedication. Even park advocates frequently remain uninformed. Consequently, few among the general public are likely to engage in any discussion or debate about parkland dedication. The challenge for park managers is to ensure their park boards and supportive stakeholder groups are made aware of this funding resource. Once that has been achieved, those groups should be encouraged to arouse the interest not only of potential supporters, but also of taxpayers who have no affinity towards parks but are strongly opposed to tax increases or to declines in a community’s quality of life. For the most part, residents remain unaware that they will be adversely impacted if such ordinances are not enacted or if the ordinances are merely nominal.

Finally, as the introduction to this paper pointed out, many elected officials who are approached by knowledgeable support groups are likely to be responsive when they are aware of the centrality of dedications to their primary philosophy of low taxation. Their inertia frequently stems from a lack of knowledge about their potential. If ordinances have been in force for many years without revision, then elected officials remain unaware of the “new normals” that the courts have authorized. The earlier Texas study reported that only 11 of the 48 cities with ordinances specified that their ordinance should be reviewed at regular intervals (say every 3 years). It concluded, “This is a major structural failing in the remaining 37 ordinances because without the stimulus of a built-in periodic review, the ordinances never appear on a council agenda and remain invisible to elected officials” (Crompton, 2010, p. 95).

The question posed in the title of this research note was: Is a Decline in Parks Provision Inevitable in Fast-Growth Cities? The answer suggested by the results is that universal decline is not inevitable, but there is a significant probability there will be a decline in most fast-growth cities without intentional intervention. Ostensibly, this may be a disappointing scenario to park advocates. However, there are two factors that should encourage them. First, an investment of effort in engaging the stakeholder groups described above is likely to return an attractive dividend. Second, the success of 30% of the cities in this sample (Table 1) in countering the prevailing trend should be a source of encouragement.

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