The Distribution of Public Recreation and Sport Amenities and Socioeconomic Characteristics in Communities: An Application of Distributive Justice Framework

May 1, 2019

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Environmental justice is always considered as one of the core values of a society. The concept of environmental justice (especially distributive justice) should be applied to every aspects of community development. Most of the environmental justice literature has treated minorities as a magnet for polluting industry and maintained that the distribution of toxic and hazardous facilities is also a function of whites having the power to expel and exclude the dirtiest industries from their neighborhoods. The concept of environmental justice has been applied to assess whether natural resources and built resources are equally or equitably distributed.

From a distributive justice standpoint, just distribution can be defined as equal distribution of benefits and burdens among individuals or groups. An analysis of the distributive justice allows to comprehend who gets what and why. Theoretically, recreation and sport amenities can be thought of as a foundation for regional quality of life attributes (Power, 1988). With regard to the economic effects associated with public recreation and sport amenities, Roback (1982) found that local recreation and sport amenities affected land prices, local wages, and housing rent. Porell (1982) also addressed that both economic and amenity factors were important determinants of migration.

Despite the importance of public recreation and sport amenities in a community, some studies found that the public recreation and sport amenities were disproportionately distributed across different groups in a community. Wetmett and Henderson (1998) found that recreation sites were unequally distributed among different race and income groups. Most of community
recreational amenities were built close to affluent communities. It is not difficult to find that many inner city communities or low-income communities do not have well maintained public recreation and sport amenities. The lack of public recreation and sport amenities eventually leads to limited accessibility to them and causes a variety of health disparities among residents.

It is worth noting that equal access to sport and recreational resources and facilities plays a key role in making a community more livable, sustainable, and equitable. Thus, this study looked at the distribution of public recreation and sport amenities as well as how socioeconomic components affect the distribution of them across residents in the community. Public recreation and sport amenities typically include parks, recreational facilities, sports facilities, and community sports programs. The research questions are twofold: 1) how are public recreation and sport amenities distributed in the communities? and 2) how do the distribution of public recreation and sport amenities relate to socioeconomic components in the communities?

**Distributive Justice Framework**

From a distributive justice perspective, it is meaningful to look at how public sport and recreational resources are distributed in a community. Thus, this study used a distributive justice framework to examine whether certain socioeconomic and racial groups are discriminated against regarding the distribution of public recreation and sport amenities.

The main question of distributive justice has been addressed about how benefits and burdens can be distributed in the fairest way. Egalitarian approach frames this as a question of relative distribution and focuses on inequality between social groups or geographical areas, asking why certain groups or areas have higher or lower accessibility levels. Three main political philosophies with respect to resources distribution are utilitarianism, liberalism, and libertarianism.
Utilitarianism

Utilitarianism is focusing on the distribution of welfare and addresses the greatest good for the greatest number. Utility is a measure of well-being and is the ultimate objective of all public and private actions. The proper goal of the government is to maximize the sum of utility achieved by everyone in society. To utilitarianism, thus, the fairest distribution is whatever distribution that maximizes aggregate welfare.

Liberalism

John Rawls’ egalitarianism addresses that social and economic inequalities can only be considered that fair if they simultaneously derive from a situation of fair equality of opportunity and work to the benefit of the least advantaged members of society (Rawls, 2001). In this view, public policies should aim to raise the welfare of the worst-off person in society.

Libertarianism

Libertarianism recognizes that all individuals equally share some fundamental rights and the freedom to choose how to lead one’s life according to one’s values and goals without interference by the state or others. Libertarians claim that free markets are inherently just and work as the primary instrument to promote justice. Therefore, government should not take from some individuals and give to others to achieve any particular distribution. Libertarians conclude that equality of opportunities is more important than equality of distribution.

The Importance of Public Recreation and Sport Amenities

Some studies confirmed the notion that location-specific amenities including natural and built amenities were positively associated with economic growth (Deller et al., 2001; Marcouiller, Kim, & Deller, 2004). Recreation and sports amenities provide opportunities for local residents to engage in desired recreational activities and may add to the attractiveness of an
area leading to economic gains. With regard to health and physical activity, accessibility to local quality community recreation and sport facilities and programs is of particular importance to residents’ physical activity accrual (Corder, Sallis, Crespo, & Elder, 2011).

The availability of neighborhood recreational facilities, the proximity of parks and playgrounds, and the number of play areas within walking distance of home were associated with higher physical activity in youth (Davidson & Lawson, 2006; Cohen et al., 2007). Parks with more features were more likely to be used for physical activity. Park facilities were more important than were park amenities. Of the park facilities, trails had the strongest relationship with park use for physical activity (Kaczynski, Potwarka, & Saelens, 2008). From a distributive justice perspective, many studies addressed not only the equal distribution of parks and recreational amenities but also the accessibility to the resources by socioeconomic status. In lower socioeconomic status (SES) communities, having convenient and safe access to inexpensive recreation and sport programs in nearby parks and recreation centers may be the only opportunity that residents have for physical activity. However, some studies showed that lower-income groups often had less access to physical activity programming and well-maintained and safe park and recreational facilities. Parks were used less in low-income than in high-income neighborhoods, largely explained by fewer supervised activities and marketing or outreach efforts (Babey, Hastert, Yu, & Brown, 2008; Cohen et al., 2013; Mckenzie et al., 2013).

In the U.S., the average neighborhood park of 8.8 acres averaged 20 users/hour or an estimated 1,533 person hours of weekly use. Walking loops and gymnasia each generated 221 hours/week of moderate to vigorous physical activity. Seniors represented 4% of park users, but 20% of the general population. Programming and marketing were associated with 37% and 63%
more hours of moderate to vigorous physical activity/week in parks, respectively (Cohen, Han, Nagel et al., 2016).

To address the importance of distributive justice in various types of community developments, this study investigated the distribution of public recreation and sport amenities and its relationship with residents’ socioeconomic status in the communities. The findings of this study could help inform policy-decision makers within local community agencies to improve equity of public parks and recreation amenities use and program design. In addition, the findings of this study could also substantiate the consideration of economic and health disparities in the design and operation of public recreation and sport amenities.

**Research Method**

This study employed two primary methodological approaches: spatial analysis and statistical analysis. To examine how public recreation and sport amenities are distributed, spatial analysis was employed. Spatial analysis examined the number of public parks, recreation and sports facilities in the study area.

Multiple regression analysis was employed to investigate the relationships between the distribution of public recreation and sport amenities and socioeconomic variables such as median household income, minority rate, crime rate, poverty rate, health insurance expenditure, and exercise participation rate in the study area. For the analysis of dichotomy variables, this study also used logistic regression analysis. This study used *ArcGIS Community Analyst* for spatial analyses and *Stata* for statistical analyses.

The study area was Forsyth County, North Carolina. The unit of analysis was a census tract which is an area roughly equivalent to a neighborhood established by the U.S. Bureau of Census. A census tract generally encompasses a population between 2,500 to 8,000 people. Forsyth
County, NC consists of 93 census tracts. The spatial data for the parks layer were obtained from MapForsyth, the City-County Geographic Information Office. A variety of socioeconomic data were obtained from the U.S. Bureau of Census.

Table 1. Description of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park</td>
<td>Number of park</td>
<td>2018</td>
</tr>
<tr>
<td>Park size</td>
<td>Size of park (square miles)</td>
<td>2018</td>
</tr>
<tr>
<td>Median household income</td>
<td>Median household income</td>
<td>2018</td>
</tr>
<tr>
<td>Poverty</td>
<td>Households below the poverty level (%)</td>
<td>2016</td>
</tr>
<tr>
<td>Minority</td>
<td>Minority population (%)</td>
<td>2018</td>
</tr>
<tr>
<td>Health expenditure</td>
<td>Health insurance expenditure</td>
<td>2018</td>
</tr>
<tr>
<td>Crime index</td>
<td>Total crime index (national average = 100)</td>
<td>2018</td>
</tr>
<tr>
<td>Exercise</td>
<td>Jogging or walking</td>
<td>2018</td>
</tr>
</tbody>
</table>

Results

Forsyth County in North County is located in the Triad Piedmont area. The largest city in the county is the city of Winston-Salem, which is the fifth largest city in North Carolina. Forsyth County is comprised of 9 cities and towns. The poverty rate of the county is 18.7% while those of US and North Carolina are 13.4% and 14.7%, respectively (Small Area Income and Poverty Estimates, US Census Bureau, 2017). The median household income of the county is $48,369 and 88.5% of total population are high school graduate or higher.

In Forsyth County, total 105 public parks and sport facilities exist. The Recreation and Parks Department of the City of Winston-Salem operates and maintains 74 public parks that have 51 picnic shelters, 47 playgrounds, 43 soccer fields, 47 softball fields, 112 tennis courts, 17 recreation centers, 8 swimming pools, 6 volleyball courts, 25 basketball courts, and a football field (City of Winston-Salem, 2018). In addition, the city also maintains 25 miles of 14 greenways, incorporating paved and unpaved trails, boardwalks, and bridges.
Table 2. Profile of Forsyth County, North Carolina (2017)

<table>
<thead>
<tr>
<th>Demographic Indicators</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>368,362</td>
</tr>
<tr>
<td>Median age</td>
<td>38.2</td>
</tr>
<tr>
<td>Educational attainment: Percent high school graduate or higher</td>
<td>88.5%</td>
</tr>
<tr>
<td>Median household income</td>
<td>48,369</td>
</tr>
<tr>
<td>Individual below poverty level</td>
<td>18.7%</td>
</tr>
<tr>
<td>Race and Hispanic origin</td>
<td></td>
</tr>
<tr>
<td>White alone</td>
<td>250,746</td>
</tr>
<tr>
<td>Black or African American alone</td>
<td>99,988</td>
</tr>
<tr>
<td>American Indian and Alaska Native alone</td>
<td>3,338</td>
</tr>
<tr>
<td>Asian alone</td>
<td>9,772</td>
</tr>
<tr>
<td>Native Hawaiian and other Pacific Islander alone</td>
<td>804</td>
</tr>
<tr>
<td>Some other race</td>
<td>11,926</td>
</tr>
</tbody>
</table>


Table 3. Distribution of Public Parks by Socioeconomic Indicators

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below $50,000</td>
<td>9</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>41</td>
</tr>
<tr>
<td>$50,001- $100,000</td>
<td>15</td>
<td>22</td>
<td>8</td>
<td>1</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>Above $100,001</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Poverty rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 20%</td>
<td>18</td>
<td>26</td>
<td>10</td>
<td>2</td>
<td>0</td>
<td>56</td>
</tr>
<tr>
<td>20% - 40%</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>40% - 80%</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Crime index</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23-149</td>
<td>22</td>
<td>21</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>150-300</td>
<td>3</td>
<td>12</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>301-463</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Minority rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 33%</td>
<td>15</td>
<td>18</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>41</td>
</tr>
<tr>
<td>34% - 63%</td>
<td>9</td>
<td>11</td>
<td>6</td>
<td>0</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>64% - 100%</td>
<td>2</td>
<td>10</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

Table 3 presents that the areas that show high poverty rate have relatively less number of public parks compared with the lower poverty rate areas. The high crime rate and high minority rate areas have less number of parks and sport amenities.
Figures 1 through 4 present that how public parks and sport amenities are distributed by socioeconomic status.

Figure 1. Public Parks and Sport Amenities and Income in Forsyth County

Figure 2. Public Parks and Sport Amenities and Minority in Forsyth County
Figure 3. Public Parks and Sport Amenities and Crime Index in Forsyth County

Figure 4. Public Parks and Sport Amenities and Poverty in Forsyth County

Source: US Census Bureau, 2012-2016 American Community Survey
Park Accessibility

A more common approach for measuring park accessibility used in previous studies is the container-based method. In this method, one summarizes the number of parks, or the total area of parks within a geographic unit. This geographic unit is often defined by the basic neighborhood unit under study, such as census tract, ZIP code, or local neighborhood. The percentage of land area used for parks per neighborhood, as well as the total area of park space averaged by population size are commonly used measures in park access equity analysis.

This study used a measure of park acre per thousand residents for measuring park accessibility. Total size of parks of the study area is 7,725 acres and average park accessibility is 21.1 acres per thousand residents while median park accessibility is 5.4 acres.

Table 4. Socioeconomic Variables of Census Tracts

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observation</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income</td>
<td>93</td>
<td>53,585.3</td>
<td>25,042.4</td>
<td>13,650</td>
<td>144,674</td>
</tr>
<tr>
<td>Number of park</td>
<td>93</td>
<td>1.1</td>
<td>0.9</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>93</td>
<td>21.4</td>
<td>16.1</td>
<td>2.7</td>
<td>78.6</td>
</tr>
<tr>
<td>Minority rate</td>
<td>93</td>
<td>44.7</td>
<td>28.6</td>
<td>5.6</td>
<td>99.1</td>
</tr>
<tr>
<td>Crime index</td>
<td>93</td>
<td>169.7</td>
<td>106.3</td>
<td>23</td>
<td>463</td>
</tr>
<tr>
<td>Exercise participation</td>
<td>93</td>
<td>14.4</td>
<td>4</td>
<td>6.6</td>
<td>23.8</td>
</tr>
<tr>
<td>Health insurance expenditure</td>
<td>93</td>
<td>93.8</td>
<td>39.2</td>
<td>38</td>
<td>236</td>
</tr>
<tr>
<td>Population</td>
<td>93</td>
<td>3,770</td>
<td>1,403.5</td>
<td>1,103</td>
<td>7,880</td>
</tr>
</tbody>
</table>

Table 5. Results of Multiple Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-.24570</td>
<td>-.56449</td>
<td>-.67486</td>
</tr>
<tr>
<td>Median household income</td>
<td>4.52e-06</td>
<td>7.47e-06</td>
<td>6.68e-06</td>
</tr>
<tr>
<td>Minority rate</td>
<td>.00719*</td>
<td>.00474</td>
<td>.00598</td>
</tr>
<tr>
<td>Crime index</td>
<td>.00112</td>
<td>.00104</td>
<td></td>
</tr>
<tr>
<td>Poverty rate</td>
<td>.00324</td>
<td>.00278</td>
<td></td>
</tr>
<tr>
<td>Health insurance expenditure</td>
<td>-.00049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise participation</td>
<td></td>
<td>.01160</td>
<td></td>
</tr>
<tr>
<td>Number of observation</td>
<td>93</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>R²</td>
<td>0.10</td>
<td>0.14</td>
<td>0.14</td>
</tr>
<tr>
<td>F</td>
<td>3.43</td>
<td>2.45</td>
<td>1.67</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01, *** p<0.001
This study performed regression analysis with different sets of independent variables to find more robust variables that show meaningful association with public parks and sport amenities. The dependent variable was the number of parks and a histogram showed that the number of park had a skewed distribution. Thus, the natural logarithm of the number of park was used for regression analysis. The independent variables included median household income, poverty rate, crime index, minority rate, exercise participation, and health insurance expenditure.

Table 5 shows that minority rate had significant relationships with the number of parks. All other independent variables did not show any significant relationship with the dependent variable. The simple regression analysis was also conducted to find variables that have associations with the number of parks. The results showed that minority rate ($\beta = .003, p<.05$) and poverty rate ($\beta = .006, p<.05$) have positive relationships with the number of parks. In terms of effect size of independent variables, crime index, median household income, and health insurance expenditures were larger than any other independent variables.

The results of the regression analysis indicated that the location and number of public parks and sport amenities were not disproportionately distributed in Forsyth County. It is, therefore, fair to note that it is hard to find the unequal distribution of public park, recreation and sport amenities across different socioeconomic groups. The high poverty rate areas have more parks due to a couple of large size of parks are located in the downtown Winston-Salem, indicating populous areas. In other words, there is no significant spatial correlation at census tract level between public parks and sport amenities and socioeconomic status in the area.

This study also employed a logistic regression analysis to examine the relationships between public parks and sport amenities and socioeconomic status of residents. The results showed that
crime index had a relationship with parks, indicating the high crime area is more likely to have public parks. Other variables did not have significant associations (See Table 6).

Table 6. Results of Logistic Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.08571</td>
<td>.05825</td>
<td>.27304</td>
</tr>
<tr>
<td>Median household income</td>
<td>1.00002</td>
<td>1.00002</td>
<td>1.00004</td>
</tr>
<tr>
<td>Crime index</td>
<td>1.01420***</td>
<td>1.01334*</td>
<td>1.01380**</td>
</tr>
<tr>
<td>Minority rate</td>
<td>.99675</td>
<td>.99551</td>
<td></td>
</tr>
<tr>
<td>Poverty rate</td>
<td>1.02103</td>
<td>1.01716</td>
<td></td>
</tr>
<tr>
<td>Health insurance expenditure</td>
<td></td>
<td></td>
<td>.99529</td>
</tr>
<tr>
<td>Exercise participation</td>
<td></td>
<td></td>
<td>.87916</td>
</tr>
<tr>
<td>Number of observation</td>
<td>93</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>LR chi square</td>
<td>16.30</td>
<td>16.77</td>
<td>18.09</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.1479</td>
<td>0.1521</td>
<td>0.1642</td>
</tr>
</tbody>
</table>

* p<0.05, ** p<0.01, *** p<0.001

Table 7. Comparison of Selected Parks in Forsyth County

<table>
<thead>
<tr>
<th></th>
<th>Tanglewood Park</th>
<th>Salem Lake Park</th>
<th>Ruppert Bell Park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (radius)</td>
<td>0.5 mile</td>
<td>2 mile</td>
<td>0.5 mile</td>
</tr>
<tr>
<td>Households by income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;$15,000</td>
<td>5.5%</td>
<td>5.8%</td>
<td>15.1%</td>
</tr>
<tr>
<td>$15,000-$24,999</td>
<td>11.4%</td>
<td>6.5%</td>
<td>9.4%</td>
</tr>
<tr>
<td>$25,000-$34,999</td>
<td>5.9%</td>
<td>5.7%</td>
<td>13.2%</td>
</tr>
<tr>
<td>$35,000-$49,999</td>
<td>11.7%</td>
<td>10.9%</td>
<td>17.0%</td>
</tr>
<tr>
<td>$50,000-$74,999</td>
<td>19.4%</td>
<td>12.2%</td>
<td>24.5%</td>
</tr>
<tr>
<td>$75,000-$99,999</td>
<td>17.6%</td>
<td>15.3%</td>
<td>9.4%</td>
</tr>
<tr>
<td>$100,000+</td>
<td>28.7%</td>
<td>43.5%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Median household income</td>
<td>$68,3478</td>
<td>$87,573</td>
<td>$44,748</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>91.4%</td>
<td>90.2%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Non-white</td>
<td>8.6%</td>
<td>9.8%</td>
<td>76.3%</td>
</tr>
<tr>
<td>Population</td>
<td>417</td>
<td>4,969</td>
<td>153</td>
</tr>
<tr>
<td>Park size</td>
<td>1,318 acre</td>
<td>1,491 acre</td>
<td>19 acre</td>
</tr>
<tr>
<td>Park accessibility*</td>
<td>0.27 acre</td>
<td>0.08 acre</td>
<td>0 acre</td>
</tr>
</tbody>
</table>

Note: * park size / population

Table 7 presents that the relationships between public parks and sport amenities and socioeconomic status of the communities. It also includes park accessibility. Even though the results of regression analysis and logistic regression found that there were little or no significant
factors, the descriptive statistics (Table 7) showed that there were some distinct differences among the three parks. The Tanglewood Park is one of the best parks in Forsyth County in terms of quality and size. The residents surrounding the park (2-mile radius) are high income (median household income: $87,573) and whites (90.2%). The residents who lives within 2 mile radius of the Salem Lake Park are relatively low income (median household income: $31,367) and non-whites (81.7%). Park accessibility also showed a big difference between the two parks.

Discussion

The results of inferential statistics including regression analysis did not support that there were unequal distribution of public parks and sport amenities among different socioeconomic groups in the community. Some descriptive statistics, however, indicated that there were unequal distribution of public parks and sport amenities. The results of spatial analysis also showed similar to those of the descriptive statistics. Thus, it is fair to conclude that it is inconclusive about whether the distribution of public parks and sport amenities is unequal.

This study used spatial analysis and statistical analysis to look at the distribution of public parks and recreation facilities in the community. Because the analysis methods this study employed did not fully explain the causes of the current distribution of public parks and sport amenities, more comprehensive approach including historical studies is needed to illuminate the process of equality formation.

In addition to the study on distributive justice associated with public parks and sport amenities, the quality of parks and recreational resources should be considered as a key factor associated with the equal distribution of them. Many previous studies maintained that the quality of public recreation and sport programs positively affected health enhancement and physical activity (e.g., Corder, Sallis, Crespo, & Elder, 2011). It is important to provide diverse programs
that use the parks and recreation amenities for the well-being of the community members. Even though this study did not examine the contributions of public parks and recreation programs to enhancing park use due to the lack of data, it is necessary to examine how public recreation and sport programs affect health and physical activity participation of residents in the community. It is also important to implement measures about how to use the parks not only to enhance the health of community members but to reduce health disparities among them.

References


## APPENDIX

### Parks, Recreation and Sport Amenities in Forsyth County

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
</table>
| C.G. Hill Memorial Park          | • Gazebo Courtyard  
• 500+ Year Old Poplar Tree.  
• 2½ Acre Fishing Lake (no swimming or boating)  
• Scattered picnic tables along the shore line for small family picnics  
• Walking Trails:  
  o Lower Trail - 1825 Feet  
  o Upper Trail - 2337 Feet  
• Restrooms  
• Parking Lot - 50 spaces, 3 handicap |
| Horizons Park                    | • 2-Acre Dog Park (off-leash area)  
• Disc Golf Course  
• Picnic Shelter  
• Mountain Bike Trail System  
• Nature and Hiking Trails  
  o Loop A (40-minute walk/hike) 1.03 mile  
  o Loop B (2-hour walk/hike) 1.23 miles  
  o Nature and Hiking Trail Maps  
• Picnic Tables with Grills (8 single tables; 2 sites with 3 tables)  
• Sand Volleyball Court  
• Horseshoe Pit  
• Softball Field  
• Playground  
• Restrooms  
• Parking Lots  
  o Lot #1 - 59 spaces, 3 handicap  
  o Lot #2 - 123 spaces, 3 handicap |
| Joanie Moser Memorial Park          | • Picnic Shelter  
|                                    | • 2 Tennis Courts  
|                                    | • Sand Volleyball Court  
|                                    | • Softball Field  
|                                    | • Horseshoe Pit  
|                                    | • \( \frac{1}{2} \) Basketball Court  
|                                    | • 700' Asphalt Walking Path  
|                                    | • Playground  
|                                    | • Tot Playground  
|                                    | • Restrooms  
|                                    | • Parking Lots  
|                                    |   o Shelter - 40 spaces, 1 handicap  
|                                    |   o Ballfield - 41 spaces, 2 handicap  
|                                    |   o Tennis - 25 spaces, 1 handicap  
|                                    |   o Play Area - 19 spaces, 1 handicap  
| Kernersville Lake Park             | • Picnic shelter  
|                                    | • 18 picnic tables (8' x 28")  
|                                    | • 2 8-foot serving tables  
|                                    | • Handicap-accessible restrooms  
|                                    | • Fireplace charcoal grill under shelter  
|                                    | • 2 standard electrical outlets  
|                                    | • Sand volleyball court with paid reservation  
|                                    | • Horseshoe pits with paid reservation  
|                                    | • Lights and electricity are provided with paid reservation  
|                                    | • Rubber-matted playground nearby  
|                                    | • Kernersville Lake for fishing nearby  
|                                    | • Pedal boats and fishing row boats available for rental  
| Old U.S. 421 River Park            | • Sand volleyball court  
|                                    | • Swings  
|                                    | • Horseshoes  
|                                    | • 7 Picnic tables (95" x 28") and grills  
|                                    | • 900' Concrete walking path  
|                                    | • Concrete ramp for river access  
|                                    | • Lower level dam 9/10 mile above park  
|                                    | • Parking lot - 44 spaces, 3 handicap  
| Tanglewood Park                    | • Golf courses  
|                                    | • Lakes  
|                                    | • Gardens  
|                                    | • Dog park  
|                                    | • BMX racing  
|                                    | • Swimming pool  
|                                    | • Horseback riding  
|                                    | • Tennis courts  
|                                    | • RV campground  

<table>
<thead>
<tr>
<th>Triad Park</th>
<th>Union Cross Park</th>
</tr>
</thead>
</table>
| • Disc golf  
• Carolina field of honor  
• Amphitheater  
• Woodland Hall - Indoor banquet facility  
• Shelter 1  
• Shelter 4  
• Shelter 6  
• Shelter 7  
• 2 Gazebo shelters (Picnic tables with grills)  
• Paved path system (walking, biking & skating)  
• 9 Horseshoe pits  
• 7 Sand volleyball courts  
• Softball field - 320' to fence  
• Soccer field  
• Rock climbing playground (located near soccer field)  
• 3 Playgrounds  
• Vendor area with shelter #1 (added insurance needed)  
• Fishing pond (catch and release) |
| • Picnic Shelter  
• 5 Picnic Tables (8’ x 28") with Grills  
• Softball Field #1 - Lighted  
• Field #1 Scoreboard / Concession Building Available for Rental  
• Softball Field #2 - Lighted  
• 1600' Rock Dust Walking Path  
• Tennis Courts (2 lighted, 1 unlighted)  
• Sand Volleyball Court  
• Horseshoe Pits  
• Basketball Court (lighted)  
• Playground  
• Restrooms  
• Parking Lots  
  o Lot #1 - 60 spaces, 3 handicap  
  o Lot #2 - 8 spaces, 3 handicap  
  o Track - 35 spaces, 2 handicap  
  o Shelter - 66 spaces, 2 handicap |
| Walkertown Community Park | • Picnic Shelter  
|                          | • 5 Picnic Tables with Grills (1 site with 2 tables, 1 site with 3 tables)  
|                          | • Softball Field #1  
|                          | • Softball Field #2  
|                          | • 1/3 Mile Rock Dust Walking Path  
|                          | • Soccer Field  
|                          | • Tennis Courts  
|                          | • Sand Volleyball Court  
|                          | • Horseshoe Pits  
|                          | • Playground  
|                          | • Restrooms  
|                          | • Parking Lots  
|                          |   o Lot #1 - 154 spaces, 5 handicap  
|                          |   o Lot #2 (Tennis) - 61 spaces, 3 handicap  

Source: Forsyth County (2018).

### Parks, Recreation and Sport Amenities in Town of Kernersville

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
</table>
| Bagley Sport Complex | • 1 Multi-use championship stadium field  
|                    | • 3 Play-in fields  
|                    | • 2 Large Bleachers  
|                    | • Floodlights  
| Century Lake Park  | • Fishing Pier  
|                    | • Canoe / Kayak Launch  
|                    | • 4 Picnic Tables  
|                    | • 4 Grills  
|                    | • Spray Fountain  
|                    | • Restrooms  
| Civitan Park       | • 2 Shelters  
|                    |   o Shelter #1: 5 picnic tables, 2 large charcoal grills, 1 standard electrical outlet  
|                    |   o Shelter #2: 6 picnic tables, 1 large charcoal grill, 1 standard electrical outlet  
|                    | • Sand volleyball court  
|                    | • Tennis courts (currently closed)  
|                    | • Horse shoe pit  
|                    | • 2 Basketball courts  
|                    | • Ball field  
|                    | • Walking Trail  
|                    | • Restrooms  
|                    | • Playground  

<table>
<thead>
<tr>
<th>Park</th>
<th>Facilities</th>
</tr>
</thead>
</table>
| Fourth of July Park                       | • 3 Shelters  
  o Shelter #1: 7 picnic tables, 1 large charcoal grill, 1 standard electric outlet  
  o Shelter #2: 5 picnic tables, 1 large charcoal grill, 1 standard electric outlet  
  o Shelter #3: 7 picnic tables, 1 large charcoal grill, 1 standard electric outlet  
  • Skate Park  
  • Dog Park  
  • Tennis Courts  
  • Pickleball Courts  
  • Basketball Courts  
  • Restrooms  
  • Walking Trails  
  • All-Inclusive Playground  
  • Individual Picnic Areas & Standalone Grills |
| Harmon Park                               | • Shelter  
  o Shelter: 8 picnic tables, 1 large charcoal grill, 1 standard electrical outlet  
  • Playground  
  • Large grassy multi-use area  
  • Restrooms  
  • Gazebo  
  • Memorial Fountain area |
| Ivey M Redmon Sports Complex              | • 3 Lighted Baseball/Softball Fields  
  • 2 Multipurpose Fields  
  • 6 Soccer Fields  
  • 1 Cross Country Course  
  • Concession stands  
  • Playground  
  • Restrooms |
| Kernersville Community Pool and Water Park| N/A                                                                       |
| Kernersville Community Recreation Center  | • Large Gym that can be used as  
  o 1 Full Basketball Court  
  o 2 Volleyball Courts  
  • Small Multi-Purpose area  
  • Restrooms |
| Kernersville Mountain Bike Park           | N/A                                                                       |
Old Kernersville Lake  | • Fishing Pier  
| • Picnic Table  
Rotary Park  | • Concert Staging Area  
| • 4 Picnic Tables  
| • Farmers Market Shelter  
Senior Enrichment Center  | N/A  
Programs  | • Adult: Basketball, Golf, Kickball, Self-Defense, Soccer, Softball, Tennis, Volleyball  
| • Youth: Basketball, Lacrosse, Self-Defense, Tennis, Youth Futsal  
Source: Forsyth County (2018).

### Parks, Recreation and Sport Amenities in Town of Lewisville

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
</table>
| Jack Warren Park           | • Bocci ball courts  
|                           | • Horse shoe pits  
|                           | • Children’s paly park  
|                           | • Walking trails’  
|                           | • Ten station par course  
|                           | • Open field for recreational activities  
| Shallowford Square Park    | N/A  
| The G. Galloway Community Center | N/A  
| Greenway                  | Plan (N/A)  
Source: Forsyth County (2018).

### Parks, Recreation and Sport Amenities in Town of Walkertown

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town Center Park</td>
<td>N/A</td>
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</tbody>
</table>

### Parks, Recreation and Sport Amenities in Village of Tobaccoville

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
</table>
| The Village Park           | • Walking trail  
|                           | • Softball field  
|                           | • Recreational filed  
|                           | • Playground  |
Alice Watts Tuttle Community Center | N/A

Source: Forsyth County (2018).

### Parks, Recreation and Sport Amenities in Town of Rural Hall

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
</table>
| Covington Memorial Park | • Picnic shelter  
                        | • Playground 
                        | • Tennis courts  
                        | • Ball field 
                        | • Walking trails |

Source: Forsyth County (2018).

### Parks, Recreation and Sport Amenities in Town of Bermuda Run

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Park Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Heron Trail</td>
<td>Plan (N/A)</td>
</tr>
</tbody>
</table>

Source: Forsyth County (2018).