Appendix F

PENNSYLVANIA LOCAL PARKS AND THE COMMUNITIES THEY SERVE

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Summary Profile
Data Profiles and Analysis

Introduction
To assist in the development of the 2014-2018 Pennsylvania Statewide Comprehensive Outdoor Recreation Plan, the Center for Rural Pennsylvania analyzed local park data collected by the Bureau of Recreation and Conservation, Pennsylvania Department of Conservation and Natural Resources (DCNR).

The data showed that within Pennsylvania there are 5,618 local parks encompassing 171,408 acres. These parks are located in 1,675 municipalities and can be found in every county across the state. To better understand the relationship between local parks and the municipality in which they are located, the Center linked park data with demographic and socio-economic data from the U.S. Census Bureau as well as financial data from the Governor’s Center for Local Government Services.

The analysis produced six profiles. The first five profiles focused on different aspects of local parks and the characteristics of the municipality in which they are located. The sixth profile examined the relationship between overweight/obese students and the availability of local parks.

Below is a brief summary of the six profiles. The attached profiles are designed to be stand-alone documents that contain in-depth information and analyses.

Data sources
Local Park Data: Data on the location and acreage of local parks was collected by the DCNR Bureau of Recreation and Conservation in 2013. This dataset contains the aggregate number of county and municipal parks and acreage in each municipality. A local park is defined as, “a publicly accessible and/or publicly owned park or natural area that engages participants of all ages in outdoor recreational experiences. Local parks provide opportunities for play and physical activities, and they promote mental and spiritual well-being and environmental stewardship.”

Demographic and Socio-Economic Data: U.S. Census Bureau American Community Survey 2012 (5 Year Estimates) was used for analysis. In addition, the 2013 municipal population estimates from the U.S. Census Bureau were used to calculate per capita rates and other percentages.

Municipal Financial Data: Governor’s Center for Local Government Services were the source of data for municipal revenues and expenditures. To obtain a more consistent picture of municipal finances, three 5-year periods of data were obtained, adjusted for inflation and averaged together. The three periods are 1998-02, 2003-07, and 2008-12.

Student Overweight/Obesity Data: The Pennsylvania Department of Health supplied data on public school students’ Body Mass Index (BMI) scores from 2008 to 2011. The data were reorganized to highlight the percent of students (K-12) with BMIs higher than the 85th percentile; these students were identified as being overweight/obese. The analysis combined 4 years of data (2007-08 to 2010-11) to provide a consistent picture of the number of overweight/obese students and to avoid yearly fluctuations.
Profile #1: Municipalities With and Without Local Parks

Summary
This profile compared the characteristics of municipalities with and without local parks.

Findings
- The majority of Pennsylvania municipalities (1,675, or 65 percent) have one or more local parks. There are 887 municipalities (35 percent) that do not have a local park.

- Geographically, the majority of local parkland is in the southeast region of the state (77,275 acres, or 45 percent of the statewide total) while the least was in the north central region (7,196, or 4 percent).

- Demographically, municipalities with parkland are more urban (52 percent) and have larger average populations (6,915) than municipalities without parkland (11 percent and 1,344, respectively).

- Ninety-one percent of Pennsylvania’s 12.7 million residents live in a municipality with a local park; 9 percent live in a municipality without local parks.

- Municipalities with parkland have higher average housing values ($206,331) compared to municipalities without parkland ($183,045).

- The average total expenditure for municipalities with parkland is $9.88 million compared to $599,000 in municipalities without parkland.

Figure 1: Municipalities With and Without Local Parkland, 2013

Data source: Bureau of Recreation and Conservation, DCNR.
Profile #2: Municipalities by Acres of Local Parkland

Summary
This profile compared the characteristics of municipalities by the number of acres of local parkland. Municipalities with parkland were divided into three groups: fewer than 10 acres, 10 to 49 acres, and 50 acres or more.

Findings
- 596 municipalities have fewer than 10 acres of local parkland. These municipalities have an average of 1.3 local parks and an average of 2.4 acres of parkland for every 1,000 residents.
- 581 municipalities have 10 to 49 acres of parkland. These municipalities have an average of 2.4 local parks and an average of 5.7 acres of parkland for every 1,000 residents.
- 498 municipalities have 50 or more acres of parkland. These municipalities have an average of 6.9 local parks and an average of 19.4 acres of parkland per 1,000 residents.
- Municipalities with less than 10 acres of parkland have, on average, smaller populations (1,998) and have lower population densities (195 persons per square mile) than municipalities with 50 or more acres (16,010 and 792 persons per square mile). Municipalities with 10 to 49 acres of parkland fall in the middle, with an average population of 4,162 and 279 persons per square mile.
- Among the three types of municipalities, income and housing values are lowest in municipalities with fewer than 10 acres of local parkland. As acres of local parkland increases, so does income and housing values within the municipality.
- Municipalities with fewer than 10 acres of local parkland spent the least for culture and recreation, an average of $24,921, or $12 per capita. Municipalities with 10 to 49 acres of local parkland spent an average of $92,173, or $22 per capita. Municipalities with 50 or more acres of local parkland spent $767,774, or $49 per capita.

Figure 2: Municipalities by Acres of Local Parkland, 2013

Data source: Bureau of Recreation and Conservation, DCNR
Profile #3: Municipal Population by Acres of Local Parkland

Summary
This profile compared the characteristics of municipalities by the size of their population. Municipalities with parkland were divided into four groups: fewer than 2,500 residents, 2,500 to 4,999 residents, 5,000 to 9,999 residents, and 10,000 or more residents.

Findings
• 1,508 of Pennsylvania’s municipalities have populations of fewer than 2,500. Of these municipalities, 733 (49 percent) have local parkland. Among those with local parkland, there is an average of 1.4 local parks per municipality, with each park encompassing an average of 28 acres.

• 477 of Pennsylvania’s municipalities have populations of 2,500 to 4,999. Of these municipalities, 387 (81 percent) have local parkland. Among those with local parkland, there is an average of 2.3 local parks per municipality, with each park encompassing an average of 32 acres.

• 320 of Pennsylvania’s municipalities have populations of 5,000 to 9,999. Of these municipalities, 300 (94 percent) have local parkland. Among those with local parkland, there is an average of 3.4 local parks per municipality, with each park encompassing an average of 36 acres.

• 257 of Pennsylvania’s municipalities have populations of 10,000 or more. Of these municipalities, 255 (99 percent) have local parkland. Among those with local parkland, there is an average of 10.5 local parks per municipality, with each park encompassing an average of 29 acres.

• There is a strong, positive correlation between population and the number of parks and acres of parkland, which means population and the number of parks and parkland are closely related—the greater the municipal population, the more parks there are within the municipality.

• As municipal size increases, so do culture and recreation expenditures. Pennsylvania municipalities spent $457.20 million on culture and recreation. Ninety-one percent of these expenditures were in municipalities with populations of 5,000 or more.

Figure 3: Municipalities by Population and Total Acres of Local Parkland, 2013

Profile #4: Rural and Urban Municipalities by Acres of Local Parkland

Summary
This profile compared the characteristics of rural and urban municipalities by acres of local parkland.

Findings
- 50 percent of rural municipalities and 10 percent of urban municipalities do not have local parkland.

- Among municipalities with local parks, the average rural municipality has 1.6 parks and 69 acres of parkland. The average urban municipality has 5 parks and 133 acres of parkland.

- 66 percent of Pennsylvania's rural population lives in a municipality with a local park. The average population in these municipalities is 2,270. Among urban residents, 98 percent live in a municipality with a local park. The average population in these municipalities is 11,151.

- Housing values in rural municipalities with local parkland is lower than housing values in urban municipalities with local parkland ($170,699 and $214,445, respectively). There is a similar income gap between rural ($63,659) and urban municipalities ($71,972). The poverty rate, however, is higher in urban municipalities (14 percent) than it is in rural municipalities (10 percent).

- On average, rural municipalities with parkland have fewer full-time employees (1.7 per 1,000 residents), compared to urban municipalities with parkland (6.0 per 1,000 residents).

- Rural municipalities with parkland spent an average of $26,655 on culture and recreation, or $12 per capita. The average urban municipality with parkland spent $489,926, or $45 per capita. In both rural and urban municipalities, culture and recreational expenditures comprised 3 percent of the total municipal expenditures.

Figure 4: Rural and Urban Municipalities by Acres of Local Parkland, 2013

Data sources: Bureau of Recreation and Conservation, DCNR, and The Center for Rural Pennsylvania definition of rural and urban.
Profile #5: Municipal Recreation Expenditures

Summary
This profile compared the characteristics of municipalities by their culture and recreation spending. Three, 5-year averages (1998-02, 2003-07, and 2008-12) were analyzed to obtain a more consistent picture of spending and fill-in any missing gaps from municipalities that did not report their expenditures. All financial data were adjusted for inflation.

Findings
- Statewide, in 2008-12, Pennsylvania municipalities spent $457.20 million on culture and recreation, or $36 per capita.
- In 2008-12, the median culture and recreational expenditure per municipality was $13,627. Statewide, culture and recreational expenditures represented 3 percent of total municipal expenditures.
- 424 municipalities (17 percent) reported no culture and recreational expenditures in 2008-12. During the same period, 93 municipalities reported spending $1.0 million or more on recreation.
- From 1998-02 to 2003-07, municipal culture and recreational spending increased 19 percent. From 2003-07 to 2008-12, spending declined 12 percent.
- Municipal culture and recreation spending is closely correlated with population, the larger the municipal population the higher the spending.

Figure 5: Change in Municipal Culture and Recreational Expenditures, 2003-07 to 2008-12

Data source: Pennsylvania Department of Community and Economic Development, Governor’s Center for Local Government Services. Data adjusted for inflation using the CPI-U with 2012 = 100.
Profile #6: Overweight/Obese Students and Local Parks

Summary
This analysis was conducted to determine if any relationship exists between the number of local parks and the percent of overweight/obese public school students. The analysis employed data from the Pennsylvania Departments of Education, Health, and Conservation and Natural Resources. The analysis was conducted at the school district level. Bryn Athyn School District was excluded from the analysis because of a lack of data.

Findings
- One-third (33 percent) of Pennsylvania’s school children are overweight or obese. According to the data, 310 school districts (62 percent) have an overweight/obesity rate above the statewide average and 189 districts (38 percent) have a rate at or below the statewide average.

- There are seven school districts in Pennsylvania without local parks.

- The number of local parks per capita was positively correlated with the percent of students who were overweight/obese. This means that districts with a higher number of local parks per 1,000 residents will likely have a higher percentage of overweight/obese students.

- There was no significant correlation between the acres of parkland per 1,000 residents and the percentage of overweight/obese students.

- Controlling for school district wealth, racial diversity, and rurality, there was no significant correlation between overweight/obese students and acres of local parkland.

- The lack of a relationship between local parkland and overweight/obese students could be driven by other factors such as the lack of information about park use, its amenities, and outside influences.

Figure 6: Percent of School Students that are Overweight/Obese (BMI>85%) 2008-11

Data source: Pennsylvania Department of Health.