

The Impact of Park Renovations on Visitor Behaviors, Evaluations, and Physical Activity:

Results from a Pre-Renovation Survey at Cedar Creek Parkway and Trexler Memorial Park



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Executive Summary

Study Background and Purpose:

Park and recreation services play an important role in enhancing quality of life in many of the Commonwealth's cities and towns. With few exceptions, Pennsylvania's most livable communities also offer high-quality park and recreation opportunities for all of its citizens. Park and recreation services can contribute to reduced youth crime, can enhance property values and attract business investments, can protect fragile ecosystems and watersheds, can increase physical activity levels among all age groups, and can maintain positive mental and physical health for all ages.

However, high-quality park and recreation opportunities are contingent upon public support and the availability of resources to maintain, upgrade, and continually improve park facilities and services. In particular, park managers, policy makers, and elected officials want to understand whether money spent on park and recreation investments are valued by community constituents and whether such investments enhance park visitor experiences while delivering other, long range benefits for the community-at-large. Unfortunately, few scientific studies have documented the impact of park and recreation renovation investments upon subsequent citizen attitudes and use of these services. Armed with such data, park professionals can better demonstrate the value of specific investments and may be more successful at acquiring resources needed to serve diverse populations.

To address this need, the Pennsylvania Recreation and Park Society working in cooperation with the City of Allentown Parks and Recreation Department, commissioned a study to gather baseline (pre-renovation) park visitor data to ensure that the impact of anticipated investments to be made at Cedar Creek Parkway could be evaluated. Specifically, this pre-renovation survey provides baseline visitor data that can serve as a basis for evaluating whether future park investments result in increased park use, enhanced perceptions of park quality and satisfaction, and changed attitudes concerning the role of parks and recreation in the City of Allentown. An on-site survey was conducted in summer 2008 and gathered information from 255 visitors at the park to be renovated (Cedar Creek Parkway) and 154 visitors at a control park where no immediate renovations are planned (Trexler Park). Specific characteristics, behaviors, attitudes, and preferences assessed include:

- Park user characteristics (age, sex, race, income, residence)
- Park user behaviors (activities, frequency of use, level of physical activity)
- Other City of Allentown parks visited within the last 12 months
- Perceived quality of specific park features, services, and programs
- Overall satisfaction of park facilities, amenities, and programs
- Perceived individual and community benefits provided by parks
- Preferences for future system-wide park improvements in the City of Allentown

Key Findings from the Baseline (Pre-Renovation) Study:

Park Visitor Socio-Demographic Profile:

Park visitors were more likely to be white females with an average household income less than \$60,000 and an average age of 47 years. Cedar Creek Parkway visitors were more likely to represent minority race/ethnicity groups (e.g., Latino) and were more likely to be younger.

Park Activities and Behaviors:

Walking, running and sedentary recreation were the primary activities across both parks. Park users reported frequent visits and stayed for an average of just over one hour. Park users generally traveled by car, but Cedar Creek Parkway visitors were more likely to travel by foot. Conversely, Trexler Park visitors were more likely than Cedar Creek Parkway visitors to travel by bicycle.

A majority of visitors (62%) engaged in moderate levels of physical activity. Of those who engaged in moderate or vigorous physical activity during their visit, a large majority (over 80%) met Centers for Disease Control and Prevention recommended activity duration levels (more than 20 minutes of vigorous activity or more than 30 minutes of moderate activity).

Perceived Park Benefits:

Visitors cited a wide range of benefits that park and recreation services provide for the Greater Allentown community. Reducing anxiety/stress, preserving open space, conserving the natural environment, and improving physical activity/health were perceived as the most important benefits provided by both parks.

Trexler Park visitors were more likely to cite stress reduction and conserving the natural environment as important park benefits while Cedar Creek Parkway visitors were more likely to cite providing children with a safe place to play as an important park benefit.

Park Satisfaction and Evaluation of Specific Amenities/Services:

Visitors were generally satisfied with park facilities, amenities, and programs at both Cedar Creek Parkway and Trexler Park. Park aesthetics, parking availability, courteousness of employees, and personal safety perceptions received the highest overall ratings. However, drinking water availability, restroom cleanliness, and ease of connecting to Trexler Park or Cedar Creek Parkway received less favorable evaluations.

Cedar Creek Parkway received lower ratings than Trexler Park for park cleanliness, overall facility maintenance, condition of trails/paths, restroom cleanliness, parking availability, and drinking water availability.

Visitors praised the overall quality of the Allentown park system but also had a number of suggestions for improving both Cedar Creek Parkway and Trexler Park. Specifically, visitors reported a desire for improving the availability/condition of park restrooms, improving the availability and year-round operation of water fountains, improving the availability/condition of park activity features (e.g., sport courts, play structures, trail connections between parks), improving water quality and drainage, maintaining flower gardens, providing pet friendly facilities and enforcing current pet use, enhanced policing and patrols within the parks, enforcing park rules, and promoting park use etiquette.

Visitors from minority populations were less likely than white visitors to evaluate park beauty favorably and reported lower levels of overall park satisfaction. Furthermore, younger park visitors were less likely than older visitors to evaluate park cleanliness, restroom cleanliness, park aesthetics/beauty, and parking availability favorably and they reported lower levels of overall park satisfaction.

Preferred Future Park Priorities:

Visitors from both parks felt that creating park opportunities for youth activity and older adult park use were the highest priorities for City of Allentown parks. Visitors also felt that building trails that connect to neighborhoods were important priorities.

Cedar Creek Parkway visitors were more likely than Trexler Park visitors to prioritize several park improvements such as improving sport courts, creating additional youth activity opportunities, and upgrading park facilities. Furthermore, minority visitors were more likely than white visitors to desire upgrading park facilities, building trails that connect neighborhoods, creating park opportunities for youth activity, and increasing the number of facilities for more active park use.

Younger park visitors were more likely to desire additional youth activity options and an increased number of facilities to provide more active use of parks. Middle-aged visitors were more likely to desire construction of trails to connect to nearby neighborhoods and improvements to the condition of existing trails and paths. Middle age and older adult users were more likely to desire additional opportunities for older adults to use parks.

Pre-Renovation Study Conclusions and Future Directions:

Park visitor perspectives are valuable in securing future resources, economic and political support at a local and state level, and can allow park and recreation administrators to justify and communicate the important contributions of park investments to the general well-being of an aging and diverse population. This pre-renovation survey is a first step in ensuring that such evidence is available. Visitors felt that parks conferred a number of benefits such as stress/anxiety reduction, improved physical activity and physical health, open space and environmental preservation, and overall enhancement of Allentown's quality of life. Results also suggest a number of opportunities for improving Allentown parks such as providing more park options for youth and older adults, increasing the number of facilities that promote more active use of parks, and building connective paths/trails. In particular, Cedar Creek Parkway visitors (particularly younger and minority users) expressed a need to upgrade and modernize their park. Such user preferences are consistent with the park renovations currently underway at this park.

To assess the impact of park renovation investments at Cedar Creek Parkway, a future, post-renovation study will be needed. Such a study would compare changes in park use behavior, perceived quality, and community attitudes in order to provide compelling evidence of the importance of local, county, and state funds in modernizing our urban park infrastructure. The methods, benchmarks, and outcomes from this demonstration project could also serve as a basis from which to expand future evaluations that include a wider range of park and recreation investments within the Commonwealth.

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Study Background, Purpose, and Methods

Background

American cities and towns face significant challenges in providing sustainable quality of life for their residents. Degradation of the natural environment, a decaying infrastructure, youth and gang-related crime, economic instability, and decreased health status all threaten the quality of life in our aging cities and towns. While there is no easy solution to these challenges, a number of approaches to enhance the livability of urban centers are being suggested. One such approach is to increase and expand the capacity of park and recreation services and facilities. A number of studies have demonstrated the value of parks and recreation as an essential government service (Godbey, Graefe, & James, 1992) and as a mechanism to reduce youth crime (Witt, 2001), enhance property values (Crompton, 1999), attract business investments (Crompton, 2001), protect fragile ecosystems and watersheds (Bolund & Hunhammar, 1999) and enhance physical activity levels and health (Bedimo-Rung, Mowen, & Cohen, 2005; Mowen, Kaczynski, & Cohen, 2008; Kaczynski & Henderson, 2007).

Despite its potential in addressing the needs of urban populations, effective management of park and recreation services is often hampered by insufficient fiscal resources, a misunderstanding of the importance of such services, and difficulties in garnering public support for park investments, programming, and maintenance. The City of Allentown, Pennsylvania is no stranger to the difficulties facing today's cities and towns. However, the City also enjoys a solid network of parks and trails, a number of quality park programs and special events, and a supportive constituency; both among its citizens and its elected officials. Moreover, a 2006 Park and Recreation Master Plan has received widespread community support and establishes a foundation for reinvesting in the City's park personnel, infrastructure and programs.

If park and recreation investments are to be sustainable, urban park managers, policy makers, and elected officials need to understand whether these investments are valued by the community and whether such investments enhance park visitor experiences and deliver other, more long range benefits across a wider variety of citizens (e.g., improved health, quality of life, improved community cohesion and safety) and for the overall community at large (e.g., improved business opportunities, higher property values, lower crime rates).

Evaluating Urban Park Investments

One approach to document the impact of these investments is by engaging citizens through public meetings, promoting the activities of friend organizations, and by conducting rigorous research and evaluation studies. However, park investments in the Commonwealth of Pennsylvania often are made without a formal evaluation of their outcomes and challenges. While anecdotal evidence and intuitive judgments suggest

that park and recreation expenditures are worthwhile. Scientific evidence regarding the impact of park improvements on subsequent park use, perceptions, and evaluations is rare. For example, from 1998-2007, a total of 3,603 park, recreation and conservation projects amounting to \$386,100,000 have been funded in order to improve and expand the Commonwealth's park, recreation, trail and open-space capacity (Center for Rural Pennsylvania, 2008). Local government park and recreation development projects accounted for \$148,700,000 of this amount. However, according to the Center for Rural Pennsylvania (2008), there are still unanswered questions regarding the impact of the Commonwealth's grant funding programs (e.g., Key 93, Growing Greener) on meeting the needs of local populations and on assessing program effectiveness.

To date, there have been minimal anecdotal and qualitative studies that document the impact of these investments after improvements have been made. Early studies suggest that urban/municipal park improvements can improve the frequency of park visitation and that citizens prefer the modernized features and facilities provided in renovated park facilities and settings (Kerstetter and Mowen, 2008). Unknown, however, is the role that urban park improvements play in creating broader constituencies, in enhancing perceptions of park quality, and in improving levels of physical activity and health for communities.



To address these gaps, the Pennsylvania Recreation and Park Society, working in cooperation with the City of Allentown Parks and Recreation Department, commissioned a study to gather baseline data to ensure that the impact of anticipated investments (or renovations) to be made at Cedar Creek Parkway could be assessed. Cedar Creek Parkway is a 109.6 acre regional park that provides multiple recreation opportunities (e.g., trails, swimming pool, rose garden, picnic pavilions, ball courts) and is the primary location for many of the City's special events.

A pre-renovation survey of Cedar Creek Parkway visitors was conducted in order to provide baseline data to gauge whether park investments correspond with changes in visitor behavior, changed attitudes, and improved perceptions of park quality after renovations have been completed.

Anticipated Cedar Creek Parkway improvements include:

- A destination playground with features for children of all abilities, including a new state-of-the-art interactive play structure, a youth fitness trail, and climbing boulders
- Expansion and enhancements to the trail system. Additional lighting along the main trail in order to enhance safety and security
- Additional electrical hook-ups for event vendors
- Expansion of picnic opportunities with new pavilions
- Addition of trellis and walkways at the Rose and Old Fashioned Garden
- Lake, ponds, and stream restorations and enhancements
- Ball court renovations and development of a new sports court complex
- A new skate park
- A sculpture art walk and children's creek walk; providing park educational opportunities
- Additional parking and support amenities throughout the park (e.g., water fountains, restrooms).

These park improvements will require significant monetary investment from local and county sources (Approximately \$1,100,000) and from Commonwealth grants using Key 93 funds (\$375,000). Currently, this park is heavily used for special events and regularly attracts thousands of visitors (City of Allentown, 2008). Over time, however, this park's popularity has taken a toll on its resources and facilities. According to the City of Allentown, in its current condition...

- Park infrastructure lacks the capacity to handle current demands. Sewage and electrical systems are particularly challenged during significant storm events and large special events in the Park.
- Not all park facilities are compliant with ADA accessibility standards.
- Muhlenberg Lake, the ponds at the Rose Garden, and Cedar Creek's ecologic health and water quality are suffering from erosion and sediment build-up.
- Park activity areas are lacking essential support amenities such as restrooms and adequate parking.
- Park facilities are not meeting the recreation demands of the Allentown community, lacking activities for citizens of all ages, interests, and backgrounds.

Based on these existing conditions and planned park renovations, Cedar Creek Parkway offers an ideal context from which to pilot test an evaluation of urban park and recreation investments. Project methods, benchmarks, and outcomes could be replicated in other park investment evaluations across the Commonwealth.

Park visitor perspectives are valuable in securing future resources, economic and political support at a local and state level, and can allow park and recreation administrators to justify and communicate the important contributions of park investments to the general well-being of an aging and diverse population. This pre-renovation survey is a first step in ensuring that such evidence is available. While this pre-renovation study offers insights into current visitor behaviors and perceptions, additional resources will be needed to conduct a future post-renovation study. A future post-renovation study would compare changes in park use behavior, perceived quality, and community attitudes and would provide compelling evidence concerning the importance of investing in our urban park infrastructure.

Pre-Renovation Survey Purpose and Questionnaire Content

To address these issues, the City of Allentown (working cooperatively with PRPS and DCNR) worked with Dr. Andrew J. Mowen, Associate Professor at the Pennsylvania State University to survey current use of Cedar Creek Parkway in order to evaluate the impact that park renovations might have on attracting a broader range of park visitors, stimulating more active park use, and enhancing perceptions of park quality. Key information gathered in this baseline (pre-renovation) survey included:

- Visitor characteristics (age, sex, race, income, residence)
- Visitor behaviors at the park (activities, frequency of use, level of physical activity)
- Other City of Allentown parks visited within the last twelve months
- Perceived quality of specific Cedar Creek Parkway features, services, and programs
- Overall satisfaction of park facilities, amenities, and programs
- Perceived individual and community benefits provided by Cedar Creek Parkway
- Preferences for future system-wide park improvements in the City of Allentown

The survey questionnaire can be found in Appendix A. of this report. Collectively, information from this pre-renovation survey could be compared with future post-renovation survey findings to assess activity increases, behavioral, and attitudinal changes over time and across other control parks where no major renovations occurred.

To allow for this capability, the present study also incorporated visitor surveys at a nearby park where no major renovations are planned in the short-term (e.g., Trexler Memorial Park). This report presents the findings and potential implications based on a pre-renovation survey at both Cedar Creek Parkway and Trexler Memorial Park.

Data Collection and Analysis

Data for this study came from in-park interviews at Cedar Creek Parkway and Trexler Memorial Park in summer 2008 (July through September). A randomized sampling schedule was created in order to survey park users at different times of the day (e.g., morning to mid day; afternoon to evening) and week (e.g., weekdays and weekend days) and throughout different park areas (e.g., picnic areas, ball courts, swimming pool, trails). The data collection schedule can be found in Appendix B. of this report. City of Allentown seasonal staff members volunteered to serve as interviewers and were trained in basic on-survey methods and procedures. These interviewers approached visitors in each of these two parks and requested 10 minutes of their time to complete the on-site interview (survey). Four hundred ninety two individuals (N=492) were approached and invited to participate in the survey. Of these individuals, 409 agreed to participate in this study for an on-site response rate of 83%.

This report presents descriptive findings and also compares survey responses across the two parks as well by key visitor and visitation characteristics. Visitor comments are also discussed in this report and a transcript of these comments are provided in Appendix C. Finally, this report summarizes key conclusions and possible future directions for not only Allentown, but also other Commonwealth cities and towns interested in documenting role and impact of park investments in their communities.



Study Results

Visitor Profile

Park visitors were more likely to be white females with an average household income less than \$60,000 and an average age of 47 years.

Cedar Creek Parkway visitors were more likely to represent minority race/ethnicity groups (e.g., Latino) and were more likely to be younger.

In order to better understand who visited these two Allentown parks, respondents were asked to provide socio-demographic data such as income, age, race/ethnicity, and sex. A majority of visitors reported household incomes of \$60,000 or less (56% for Cedar and 44% for Trexler). Cedar Creek Parkway visitors were more likely than Trexler Park visitors to report incomes of \$20,000 or less. Cedar Creek Parkway visitors were also younger than Trexler Park visitors with 33% representing 18-35 years (Table 1). Importantly, Cedar Creek Parkway visitors were more likely than Trexler Park visitors to represent minority groups, particularly, Latino/Hispanic (17% for Cedar vs. 5% for Trexler). Finally, park visitors were more likely to be females (59% for Cedar vs. 57% for Trexler).

Table 1. Cedar Creek Parkway and Trexler Park visitor socio-demographics

Variable	% or Mean Cedar	% or Mean Trexler	% or Mean Overall
Income*			
\$20,000 or less	11%	7%	10%
\$20,001 to \$40,000	16%	12%	14%
\$40,001 to \$60,000	29%	25%	28%
\$60,001 to \$80,000	17%	16%	17%
\$80,001 to \$100,000	13%	13%	13%
Over \$100,000	15%	26%	19%
Age *			
18-35	33%	16%	27%
36-50	28%	25%	27%
51-64	23%	32%	26%
65 and older	16%	27%	20%
Race/Ethnic Background*			
White	71%	84%	76%
Black/African American	7%	7%	7%
Hispanic/Chicano/Latino	17%	5%	12%
American Indian/AK Native	2%	1%	5%
Asian	1%	2%	5%
Other	2%	1%	8%
Gender			
Male	41%	43%	42%
Female	59%	57%	58%

*Significant difference at the $p = 0.05$ level between the two parks

Park Behaviors and Activity Patterns

Walking (42%), running (19%), and sedentary park use (14%) were the most commonly cited and primary activities across both parks.

Trexler Park users were more likely than Cedar Creek Parkway users to report walking (70%) and running (24%) as their primary activities.

Cedar Creek Parkway visitors were more likely than Trexler Park visitors to list a wider range of park activities, particularly sports, sedentary park activities, and group-based activities (e.g., picnicking, special events, people watching).

Both parks offer opportunities for trail-based recreation such as walking, running, bicycling. However, Cedar Creek Parkway offers a wide variety of additional recreation opportunities such as picnic areas/pavilions, special events, swimming, and sport courts. As a result, it is not surprising that visitors' most popular recreation activities varied between these two parks (Table 2). While walking was by far the most popular activity at both parks (37% for Cedar, 70% for Trexler), Trexler Park visitors were more likely than Cedar Creek Park visitors to cite jogging/running (24%) and bicycling (5%) as their primary park activity (Table 3). However, Cedar Creek Parkway visitors were more likely than Trexler Park visitors to cite a wider range of other park activities as their most important (e.g., sports (10%), sedentary park activities (10%), swimming (7%), picnicking (5%), special events (6%), and people watching (5%)). A summary of visitors' activities are illustrated in Tables 2 and 3, respectively.

Table 2. Park activity participation.

Activities	% Cedar	%Trexler	% Overall
Walking (Including w/ Dog)	45%	79%*	42%
Jogging/Running	14%	29%*	19%
Sedentary Activities (i.e. Reading)	20%*	4%	14%
Viewing Nature (Including Birding)	11%*	3%	8%
Sports (i.e. Baseball)	11%*	-	7%
Other	11%*	<1%	7%
People Watching	9%*	-	5%
Eating/Picnicking	8%*	2%	5%
Special Events/Festivals	8%*	<1%	5%
Swimming	8%*	-	5%
Exercise Stations	6%*	-	3%
Playing (i.e. catch, flying a kite, etc.)	3%	1%	2%
Bicycling	1%	4%	2%
Fishing	<1%	-	<1%
Tennis	<1%	-	<1%

*Significant difference at the 0.05 level between the two parks

Table 3. Single most important (or primary) activity reported by park visitors

Activities	% Cedar	%Trexler	% Overall
Walking (including w/ dog)	37%	70%	50%
Jogging/Running	7%	24%	14%
Sedentary Activities (i.e. reading)	10%	1%	7%
Sports (i.e. baseball)	10%	-	6%
Other	7%	-	5%
Swimming	7%	-	5%
Eating/Picnicking	5%	1%	4%
Special Events/Festivals	6%	-	4%
People Watching	5%	-	3%
Viewing Nature (including birding)	2%	-	2%
Bicycling	<1%	3%	1%
Exercise Stations	<1%	-	<1%
Playing (i.e. catch, flying a kite, etc.)	<1%	-	<1%
Fishing	<1%	-	<1%

Park users reported frequent visits and stayed for an average of just over one hour.

In addition to their park activities, visitors were also asked to provide basic information regarding their overall park use. Specifically, this study examined the frequency and duration of park use, other City of Allentown parks visited, how visitors traveled to the park, and physical activity levels while visiting the parks. First, visitors were asked how many days they visited that park over the last month (30 days). Responses revealed that park goers visited Cedar Creek Parkway and Trexler Park rather frequently (Table 4). Trexler Park visitors were more likely to visit more frequently (average of 14 visits) compared to Cedar Creek Parkway visitors (average of 11 visits). While Cedar Creek Parkway users visited less frequently, they reported longer lengths of stay. For example, Cedar Creek Parkway visitors reported an average visit of 88 minutes while Trexler Park visitors reported an average visit of 61 minutes (Table 4).

A majority of all park users (62%) engaged in moderate levels of physical activity. Trexler Park visitors (80%) were more likely than Cedar Creek Parkway visitors (58%) to report being moderately active. There was no significant difference in vigorous activity across the two parks (35% for Cedar Creek Parkway and 42% for Trexler Park).

Of those who engaged in moderate or vigorous physical activity during their visit, a large majority (over 80%) met Centers for Disease Control recommended duration levels (e.g., > 30 minutes moderate activity or > 20 minutes vigorous activity).

Parks provide low-cost and accessible opportunities for physical activity across a broad population (Godbey, 2009). In this survey, visitors were asked whether they engaged in moderate and/or vigorous levels of physical activity and how long they engaged in such activity levels. Results indicate that, across both parks, a majority of visitors reported being physically active. Trexler Park visitors (80%) were more likely than Cedar Creek Park visitors (58%) to report engaging in moderate physical activity during their visit (Table 4). However, both Cedar Creek and Trexler Park visitors were equally likely to engage in vigorous forms of physical activity (42% at Trexler vs. 35% at Cedar Creek) and they engaged in vigorous activity for an average of 39 to 49 minutes and moderate activity for an average of 48 to 49 minutes during a typical visit.

Table 4. Park visitation and physical activity questions

Variable/Question	Cedar % or Mean	Trexler % or Mean
Number of days visited the park in the past month (including the day of the survey)	11 Days	14 Days*
Total minutes spent in the park during the last visit	88 Minutes*	61 Minutes
During your last park visit, did you participate in any form of moderate physical activity (i.e. walking, swimming, etc.)?	58% Yes	80% Yes*
If yes, then how many total minutes did you spend participating in moderate physical activity?	48 Minutes	49 Minutes
During your last park visit, did you participate in any form of vigorous physical activity (i.e. jogging, running, etc.)?	35% Yes	42% Yes
If yes, then how many total minutes did you spend participating in vigorous physical activity?	49 Minutes*	39 Minutes

*Significant difference at the $p = 0.05$ level between the two parks

Park visitors generally traveled by car, but Cedar Creek Parkway visitors were more likely than Trexler Park visitors to travel by foot. Conversely, Trexler Park visitors were more likely than Cedar Creek Parkway visitors to travel by bicycle.

Community parks are used more frequently when they are within close proximity to neighborhoods and are easily accessible to local residents (Mowen and Confer, 2003). In particular, parks that are easy to walk or bike to can experience frequent use and may prompt residents to be more physically active on a daily basis (Hoehner et al. 2005). In this survey, park visitors were asked how they got to the park. A majority (83%) said that they traveled by car (Figure 1). However, a sizable minority of Cedar Creek Parkway visitors (20%) traveled to the park by foot (e.g., walking, jogging). These findings suggest that there is room to improve walking/bicycling access to these parks and Cedar Creek Parkway's existing connections to adjacent neighborhoods could explain the higher prevalence of foot traffic to this park.

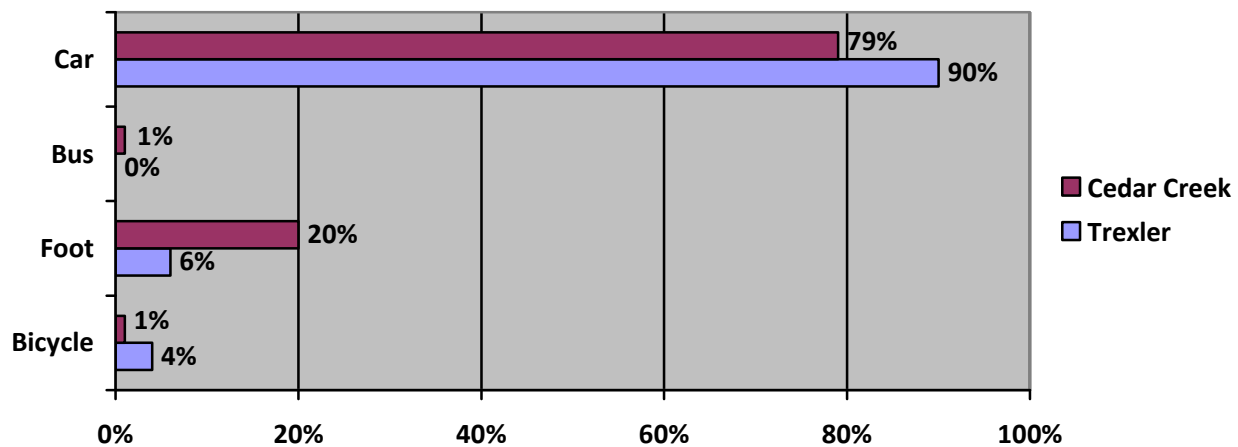


Figure 1. Park Travel Mode

Cedar Creek Parkway and Trexler Park represent a larger system of City of Allentown parks. Thus, it was important to understand whether visitors to these two parks had visited other City of Allentown parks. Specifically, visitors were asked whether, over the last 30 days, they had visited any other City of Allentown park. If they had visited another park, they were then asked to indicate which park they had visited. Results indicated that a majority (62%) had not visited another Allentown park over the last 30 days. Those respondents who had visited another Allentown park (38%), typically visited parks within close proximity to the two study parks (e.g., Cedar Creek Parkway, Trexler

Park, Lehigh Parkway, and West Park) (Table 5). In particular, there was a fair amount of cross use between Cedar Creek Park and Trexler Park.

Table 5. Top 3 other parks visited in the last 30 days

Cedar Creek			Trexler		
		n			n
1 st	Trexler	23	1 st	Cedar Creek	17
2 nd	Lehigh Parkway	19	2 nd	Lehigh Parkway	10
3 rd	West Park	8	3 rd	West Park	2

However, two things should be noted. First, visitors were asked about their park use over a short time frame (30 days). This time frame was intended to gauge typical use over the summer, but it is quite possible that Cedar Creek and Trexler visitors had visited a wider range of Allentown parks over a longer time period. Second, it should be noted that Cedar Creek Parkway users were more likely than Trexler Park users to visit a wider range of other Allentown parks (e.g., 11 other parks for Cedar visitors vs. 8 other parks for Trexler visitors). In terms of parks within Allentown's east and south communities, Irving, Buck Boyle, Trout Creek and Jordon Park were cited by both Trexler Park and Cedar Creek Parkway visitors. Cedar Creek Parkway visitors also reported visiting South Mountain Reservoir, Percy Ruhe, and Fountain Park. Graphical illustrations of Cedar Creek Parkway and Trexler Park visitors' use of other City of Allentown parks are provided in Figures 2 and 3 (Appendix F, pages 47 and 48).

Perceived Park Benefits

Visitors cited a wide range of benefits that parks offered to the Greater Allentown community.

Reducing anxiety/stress, preserving open space, conserving the natural environment, and improving physical activity/health were perceived as the most important benefits provided by these parks

Trexler Park visitors were more likely to cite stress/anxiety reduction and conserving the natural environment as important park benefits while Cedar Creek Parkway visitors were more likely to cite providing children with a safe place to play as an important park benefit.

Community park visits and experiences can confer a wide number of benefits for both city residents and out-of-town guests. This study asked respondents to indicate the extent that Cedar Creek Parkway or Trexler Park provided a number of environmental, health, social, and economic benefits for the Greater Allentown community. Visitors perceived that these parks provided a wide range of benefits for the community, but were most likely to indicate benefits such as reducing anxiety and stress, open space preservation, improving physical activity and health, and connecting citizens to the outdoors. Trexler Park visitors were more likely than Cedar Creek Parkway visitors to cite reducing anxiety/stress, improving health, and conserving the natural environment as important park benefits (Table 6). Conversely, Cedar Creek Parkway visitors were more likely than Trexler Park visitors to feel that providing children with a safe place to play was an important park benefit (Table 6).

Table 6. Perceived importance of park benefits *

Items	Cedar Mean	Trexler Mean	Overall Mean
Reducing anxiety and stress	4.6	4.8**	4.7
Preserving open space	4.6	4.8	4.7
Improving physical activity	4.7	4.7	4.7
Improving health and well-being	4.6	4.7**	4.6
Enhancing the communities' quality of life	4.5	4.6	4.6
Connecting citizens with the outdoors	4.6	4.6	4.6
Conserving the natural environment	4.4	4.7**	4.5
Improving mental health	4.5	4.6**	4.5
Increasing nearby property values	4.5	4.6	4.5
Enhancing relationships between families/neighbors	4.4	4.4	4.4
Providing children with a safe place to play	4.5**	4.2	4.4
Providing a sense of community togetherness	4.2	4.3	4.2
Community and economic development	4.2	4.2	4.2
Attracting tourists	4.0	4.0	4.0
Reducing youth crime	3.8	3.7	3.7

*Response options ranged from "1 = Not at all" to "5 = A great deal"

**Significant difference at the $p = 0.05$ level between the two parks

Evaluation of Park Features and Services

Visitors were generally satisfied with park facilities, amenities, and programs at both Cedar Creek Parkway and Trexler Park.

In terms of specific features, park beauty/aesthetics, parking availability, courteousness of employees, and personal safety perceptions received the highest overall ratings.

Park features such as drinking water availability, restroom cleanliness, and the ease of connecting to adjacent parks received less favorable evaluations overall.

Successful park and recreation operations require an understanding of citizen needs and visitors' evaluation of specific park features, services, programs, and policies. In this study, visitors were asked to evaluate the park (e.g., either Cedar Creek Parkway or Trexler Park) on a number of issues. Results revealed that visitors at both parks reported high overall satisfaction levels. Here, 95% of visitors said that they were either satisfied or extremely satisfied with the overall facilities, amenities, and programs/events offered at each park (Table 7). In terms of specific issues, virtually all categories received scores ranging from good to excellent. In particular, park beauty/aesthetics, availability of parking, courteousness of park employees, and perceptions of personal safety received the highest evaluations, while restroom cleanliness and drinking water availability received lower evaluations across both parks combined.

Cedar Creek Park received lower ratings than Trexler Park for parking availability, park cleanliness, overall facility maintenance, condition of trails/paths, restroom cleanliness, and drinking water availability.

When examining visitor evaluations across the two parks there were several notable differences. For example, Cedar Creek Parkway received significantly lower ratings than Trexler Park on park cleanliness, overall facility maintenance, condition of trails/paths, restroom cleanliness, parking availability, and the availability of drinking water. Conversely, Cedar Creek Parkway received higher ratings for the availability of picnic facilities and condition of the creek/lake (Table 7). These higher Cedar Creek Parkway ratings might be explained by the fact that this park currently offered more of these specific amenities than did Trexler Park.

A key reason for conducting this pre-renovation park survey was to assess whether specific park amenities outlined by that park's renovation/rehabilitation plan (e.g., trails, sport courts, restrooms, natural resources) were also perceived to have room for improvement. Based on the descriptive and comparative results from this study, it appears that such opportunities exist. In the near future, it will be important to conduct

a post-renovation survey to assess whether visitors rate Cedar Creek Parkway amenities more favorably than before. For example, planned Cedar Creek Parkway improvement projects include restroom renovations, park drainage/water quality improvements, and improvements to drinking fountains to name just a few and these amenities are currently evaluated less favorably. Moreover, both parks received less favorable evaluations on park connectivity. Efforts to connect visitors between these two parks may influence future evaluations of park connectivity and could serve as evidence to promote connections between other City of Allentown parks.

Nevertheless, the reader is reminded that overall visitor impressions and evaluations were generally positive across both parks. Moreover, lower evaluations of restroom cleanliness are common in urban park visitor surveys and a majority of visitors felt that Trexler Park restrooms were good or excellent. In summary, the City is to be commended for receiving high marks for the quality of its parks, particularly with respect to park aesthetics, park employee courteousness, parking availability, and personal safety perceptions.

Table 7. Evaluation of specific park facilities, services, and amenities

Items	Cedar % Good Excellent	Cedar Mean	Trexler % Good Excellent	Trexler Mean
Park beauty and aesthetics	95%	4.6	98%	4.7
Courteousness of park employees	94%	4.6	97%	4.7
Personal safety at this park	92%	4.5	91%	4.5
Availability of parking	85%	4.4	96%	4.7*
Cleanliness of this park	85%	4.3	95%	4.6*
Quality of special events/festivals	82%	4.3	84%	4.4
Condition of trails and paths	85%	4.3	91%	4.5*
Quality of sport courts	88%	4.3	82%	4.3
Quality of park programs	82%	4.2	80%	4.3
Overall maintenance of park facilities	82%	4.2	95%	4.6*
Availability of picnic facilities	78%	4.2*	58%	3.5
Quality of creek and/or lake	80%	4.2*	57%	3.5
Variety of park facilities and amenities	79%	4.2	79%	4.1
Park signs	72%	4.0	79%	4.2
Quality of pool facilities	76%	4.0	N/A	N/A
Safety of street crossings	71%	3.9	79%	4.2
Ease of connecting to Trexler or Cedar	61%	3.7	64%	3.8
Restroom cleanliness	37%	3.0	70%	4.0*
Availability of drinking water	26%	2.8	41%	3.2*
Overall Satisfaction	95%	4.3	95%	4.4

*Significant difference at the 0.05 level between the two parks

Preferences for Park Improvement Strategies

Visitors from both parks felt that creating park opportunities for youth activity and older adult park use were the highest priorities for City of Allentown parks. Visitors also felt that building trails that connect to neighborhoods were priorities for the city park system.

Visitors at both parks were asked to prioritize and rate a number of improvement strategies for the City of Allentown's entire park system. Specifically, respondents were asked to rate the importance of strategies to improve park facilities, services, and overall visitor experiences. Response options ranged from 1 = Lowest Priority to 5 = Highest Priority. Table 8 lists the percentage of visitors rating each item as the highest priority and provides the mean score for each item on a five point scale. Results are provided for each park and for both parks combined.

Findings reveal a desire to create additional park opportunities for youth activity (39% highest priority) and for older adults to use parks (43% highest priority). Consistent with these desires was a perceived need to increase the number of facilities that promoted more active use of their survey park (38% highest priority). Finally, visitors to these two parks also felt that building trails/paths that connect nearby parks was a priority (39% highest priority) (Table 8). Strategies that were less likely to be perceived as a high priority were: Enhancing public transit to parks (23% highest priority), improving the natural aesthetics of parks (16% highest priority), and making parks more pet-friendly (13% highest priority). These lower ratings could stem from a perception that Allentown parks already do a good job on these issues. For example, park aesthetics was the highest rated item at both parks surveyed (see Table 7 above).

Cedar Creek Parkway visitors were more likely than Trexler Park visitors to prioritize several park improvements such as improving sport courts, creating additional youth activity opportunities, and upgrading park facilities.

While visitors were asked to prioritize strategies for the entire park system, there were a number of statistically significant variations across the two parks surveyed. In particular, Cedar Creek Parkway visitors were more likely than Trexler Park visitors to rate a number of strategies as high priorities for Allentown parks. For example, Cedar Creek Parkway visitors placed a higher priority than did Trexler Park visitors on upgrading park facilities, creating additional opportunities for youth activity, increasing the number of facilities for more active park use, improving the condition of sport facilities, and enhancing public transit service to parks. These Cedar Creek Parkway visitor preferences are consistent with current plans to renovate this park's sport courts, park support amenities, trail network, and the construction of an accessible destination playground to promote youth physical activity.

Table 8. Preferences for selected park improvement strategies or actions

Park Improvement Strategy/Action...	Cedar % Highest Priority	Cedar Mean	Trexler % Highest Priority	Trexler Mean	Overall % Highest Priority	Overall Mean
Create additional opportunities for older adults to use parks	43%	3.8	43%	3.7	43%	3.7
Create additional park opportunities for youth activity	43%	3.9*	31%	3.2	39%	3.6
Increase the number of facilities that provide more active use of this park (e.g., trails, playgrounds)	44%	3.8*	28%	3.0	38%	3.5
Build trails and paths that connect to nearby parks	36%	3.5	28%	3.3	33%	3.4
Upgrade and modernize park facilities/amenities	27%	3.4*	16%	3.0	23%	3.3
Improve the quality of park lakes and streams	27%	3.3	29%	3.4	28%	3.3
Build trails and paths that connect to neighborhoods	29%	3.2	26%	3.0	28%	3.1
Improve the conditions of existing trails and paths	23%	3.1	20%	3.0	22%	3.0
Improve the condition of the sport facilities	26%	3.2*	19%	3.0	23%	3.0
Enhance public transit services to parks	23%	3.1*	22%	2.9	23%	2.9
Improve the natural aesthetics of parks	18%	3.0	13%	2.7	16%	2.8
Make the parks more pet friendly	13%	2.3	12%	2.3	13%	2.3

*Significant difference at the 0.05 level between the two parks

Park User Group Comparisons

Another objective of this study was to determine if certain park visitor characteristics defined or explained park quality evaluations, preferences for improving parks, and physical activity levels. Such data can assist park leadership in developing targeted programs, facilities, and services. What follows is a brief summary of those characteristics significantly related to age, income levels, minority status, etc.

- Visitors from minority populations were less likely than white visitors to evaluate park beauty favorably and reported lower levels of overall park satisfaction.
- Minority visitors were more likely than white visitors to desire upgrading or modernizing park facilities, building trails that connect to neighborhoods, creating park opportunities for youth activity, and increasing the number of facilities to provide more active use of parks.
- Younger park visitors were less likely than older visitors to evaluate park cleanliness, restroom cleanliness, park aesthetics/beauty, and parking availability favorably and they reported lower levels of overall park satisfaction.
- Younger park visitors (representing both the 18-35 and 36-50 age groups) were more likely to desire additional youth activity options and an increased number of facilities to provide more active use of parks.
- Visitors in the 36-50 age bracket were more likely than the other age groups to desire construction of trails to connect to nearby neighborhoods and improvements to the condition of existing trails and paths.
- Older park visitors (36 years or older) were more likely than the youngest adult visitors surveyed (18-35 years) to desire the creation of additional opportunities for older adults to use parks.
- For Trexler Park visitors, higher evaluations of park beauty, personal safety perceptions, ease of connecting to Cedar Creek Parkway, park signs, and quality of park programs were significant predictors of overall park satisfaction levels.
- For Cedar Creek Parkway visitors, higher evaluations of park cleanliness, restroom cleanliness, overall park maintenance, and park beauty/aesthetics were significant predictors of overall park satisfaction levels.
- Younger visitors (18-50 years) were more likely than older visitor to report engaging in vigorous physical activity during their park visit while older visitors were more likely than younger visitors to engage in moderate physical activity during their park visit.

Visitor Open Ended Comments

When asked to describe, in their own words, the single most important benefit of the parks, visitors mentioned specific recreation activities, exercising/being active, enjoying nature, and relaxing

Visitors felt that their parks conferred a number of benefits for them and for the community at-large. Common park benefits included specific recreation activities and events, being physically active and healthy, relaxing and de-stressing, enjoying the beauty of nature, and providing safe recreation opportunities to name just a few. These open ended comments are consistent with visitor responses to park benefit ratings as illustrated in Table 5. of this report.

Visitors praised the overall quality of the Allentown park system but also had a number of suggestions for improving both Cedar Creek Parkway and Trexler Park.

Visitors were generally satisfied with their park experiences and the overall quality of Allentown parks. However, when asked if there was anything else that the City of Allentown could or should do to improve their parks, visitors had a number of suggestions. Major issues raised by visitors included:

Restrooms: Improving the condition of restrooms, providing more restrooms, and cleaning restrooms more frequently.

Safety: Proving more policing and patrols within the parks, doing a better job at enforcing park rules, particularly as they relate to trail etiquette/safety.

Pets (Dogs): Some visitors wanted no pets, several expressed a desire for a dog park, and some also felt that leash and dog waste policies should be better enforced.

Park Activity/Support Features: Improving the availability of water and operation of water fountains, improving the condition of sport courts, providing play structures/areas, and providing pedestrian/bike connections between both parks.

The Resource: Improving the water quality of the streams and the pond, water drainage, waterfowl management, and maintaining the flower gardens

It should be noted that some visitors also indicated that no park changes should be made. The reader is encouraged to review the full transcript of visitor comments related to key park benefits and park improvement strategies in Appendix C.

Study Conclusions and Future Directions

Based on study results, several strategies and improvements could be considered at Cedar Creek Parkway and for the Allentown park system.

This study confirms that Cedar Creek Parkway and Trexler Park visitors represent a wide range of age, income and gender user groups. However, racial/ethnic minorities were less likely to be park visitors. One promising finding was that Cedar Creek Parkway was more likely to attract minority visitors, particularly among Hispanic/Latino populations. Findings from this study demonstrate a favorable report card for various park features, facilities, and services. A majority of visitors were satisfied overall with these two parks. Scenic beauty, staff courteousness, parking availability, and a safe environment provided the foundation for overall high visitor satisfaction levels. However, there are a number of opportunities for improving Allentown parks such as providing more park options for youth and older adults, increasing the number of facilities that promote more active use of parks, and building connective paths/trails. In particular, Cedar Creek Parkway visitors expressed a need to upgrade or modernize their park. Moreover, younger and minority visitors were more likely to desire a number of improvements at this park. Such preferences are consistent with the renovation efforts currently underway.

A future, post-renovation survey should assess if there are marked changes in visitor use frequency, physical activity as well as examine whether the park renovations stimulate first time visitors or visitors across a wider spectrum of Allentown communities. A future post-renovation study could also examine if visitor evaluations are more favorable for Cedar Creek Parkway and the perceived impact of park renovations from the perspectives of park visitors and nearby residents. Moreover, there may be opportunities to examine the role of specific park investments (e.g., destination playgrounds, improved sport courts) on improving youth activity in the park. Likewise, renovations to the park trail system and Rose Garden could also be assessed from the standpoint of adult park visitors.

This study only assessed visitor characteristics, evaluations, and activities, rather than preferences of the community at-large (e.g., park non-users). Therefore, it will be important to gauge whether investments at Cedar Creek Parkway (and at other City of Allentown parks) result in increased park use and satisfaction levels across a broader spectrum of the City's population. Fortunately, the information gathered as part of this pre-renovation study provides a baseline from which to evaluate the success of future investments made to these parks. The purpose of the present study was to lay the foundation for a future assessment at this park and provide a pilot demonstration for how Commonwealth park and recreation projects could be evaluated in other communities. Such evaluations will allow communities to empirically document how grant and local matching funds can be used to provide park investments that meet the park, recreation, and open-space needs of Commonwealth cities and towns.

Appendix A.

On-Site Questionnaire

(with descriptive results)

2008 CEDAR CREEK PARKWAY/TREXLER PARK SURVEY RESULTS (combined)

62% (N=255) Cedar Creek Parkway 38% (N=154) Trexler Park N=409 Total Sample Size

RECORD GENDER... 42% Male 58% Female

1. What specific park activities have you done or do you plan to do during today's visit? (Prompt respondent for answer, ask is there any other activity that you'll be doing during this visit?)
Reported as a % saying "yes" to that activity.

7%	Sports	2%	Bicycling
57%	Walking	8%	Viewing nature
5%	Eating/picnicking	5%	Special events/festivals
0%	In-line skating	1%	Fishing
0%	Tennis	25	Playing
5%	Swimming	14%	Sedentary park activities
19%	Jogging/running	5%	People watching
3%	Exercise Stations	7%	Other (please list)

2. What **primary activity** drew you to the park today? (**Top four primary activities**)

Top activities were walking, jogging/running, sedentary park activities, and sports

3. Including today, how many total days over the LAST MONTH (i.e., last 30 days) have you visited this park?

12 Average Number of Days (**Range 1-30 days, 53% visited more than 10 times**)

4. Please estimate how many TOTAL MINUTES you spent at this park during your last visit?

78 Average Number of Minutes (% Breakdown) (**63% stayed an hour or less**)

5. During your last park visit, did you participate in any form of vigorous physical activity (for example jogging, playing sports, walking or bicycling at a vigorous pace, breaking a sweat, with your heart beating rapidly)?

38% Yes 62% No

- 5a. How many total minutes did you spend participating in vigorous physical activity during your last park visit?

45 Average Minutes - (**88% of vigorous activity was over 20 min. threshold**)

6. During your last park visit, did you participate in any form of moderate physical activity (for example, playing, walking, swimming or bicycling at an easy pace, but not exhausting)?

66% Yes 34% No

- 6a. How many total minutes did you spend participating in moderate physical activity during your last park visit?

48 Average Minutes – (**82% of moderate activity was over 30 min. threshold**)

7. How did you travel to get to this park today? (check one)

83% by car 0% by bus 14% on foot 2% bicycled

8. Overall, would you say that both this visit and your last visit to this park is similar to other visits you've made?

94% Yes 6% No (How was it different? - (If different it was primarily different activities)

9. Over the last 30 days, have you visited any other City of Allentown Parks (besides this park)?

38% Yes, What other City of Allentown Parks did you visit? (open-ended, list up to four parks)
62% No

In the next series of questions I will ask you to evaluate the quality of existing park features and services as well as what improvements, if any, should be made to improve City of Allentown parks...

Park Feature or Service...	Good (%)	Excellent (%)	5 Point Scale Mean Score
Park beauty and aesthetics	26	70	4.66
Courteousness of park employees	26	69	4.62
Ease of connecting to Trexler or Cedar Creek Park	27	36	3.71
Cleanliness of this park	35	53	4.41
Quality of park programs	38	44	4.22
Personal safety at this park	38	58	4.47
Park signs	31	43	4.06
Overall maintenance of park facilities	35	52	4.33
Quality of special events/festivals	31	52	4.33
Availability of drinking water	16	16	2.99
Availability of parking	24	66	4.53
Availability of picnic facilities (pavilions, tables)	30	44	4.04
Safety of street crossings	36	39	4.01
Quality of pool facilities (don't ask at Trexler)	37	37	4.03
Quality of the creek and/or lake	34	38	3.95
Condition of trails and paths	34	53	4.40
Variety of park facilities and amenities	38	41	4.13
Quality of sport courts (basketball, volleyball, etc.)	39	47	4.30
Restroom cleanliness	26	24	3.36

11. Thinking about all of the facilities, amenities and programs/events offered in this park, please indicate your *overall level of satisfaction with this park (Circle One)*... Mean Score on 5 point scale = 4.37

Extremely
Unsatisfied
0%

Unsatisfied
0%

Neither Satisfied
Nor Unsatisfied
5%

Satisfied
52%

Extremely
Satisfied
43%

12. Neighborhood parks have the potential to provide a number of individual and community benefits. I'm going to read you a list of potential benefits and I want you to indicate the extent you feel that this particular park achieves these benefits for the Greater Allentown community (from a 1 "Not at all" to 5 "A great deal") – Don't Know excluded

Potential Benefit of this Park	Somewhat (%)	A Great Deal (%)	Average Score
Attracting tourists	21	45	4.00
Conserving the natural environment	25	65	4.52
Providing a sense of community togetherness	28	50	4.24
Improving health and well-being	22	71	4.62
Enhancing the communities' quality of life	24	67	4.57
Reducing anxiety and stress	20	78	4.68
Enhancing relationships between families/neighbors	27	57	4.39
Improving mental health	21	67	4.54
Reducing youth crime	20	36	3.74
Preserving open space	17	76	4.68
Increasing nearby property values	22	66	4.51
Connecting citizens with the outdoors	23	69	4.60
Providing children with a safe place to play	18	63	4.38
Community and economic development	29	50	4.24
Improving physical activity	19	76	4.68

12a. In your own words, what is the single most important benefit of this park?

13. Now, I would like to ask you about some things that the City of Allentown could do system-wide to improve parks, facilities, services, and overall visitor experiences. Please indicate the importance of the following strategies to improve the City's park system...

Park Improvement Strategy or Action...	Priority (%)	Highest Priority (%)	Mean
Upgrade and modernize park facilities/amenities	24	23	3.26
Make the parks more pet friendly	10	13	2.32
Build trails and paths that connect to neighborhoods	17	28	3.11
Improve the condition of existing trails and paths	19	32	3.04
Build trails and paths that connect to nearby parks	19	22	3.39
Create additional park opportunities for youth activity	19	38	3.62
Increase the number of facilities that provide more active use of this park (e.g., trails, sport facilities, playgrounds, skate parks)	20	28	3.51
Improve the quality of park lakes and streams	18	16	3.33
Improve the natural aesthetics of parks	16	23	2.82
Enhance public transit services to parks	17	23	2.92
Improve the condition of the sport facilities	18	43	3.04
Create additional opportunities for older adult to use parks	18	43	3.73

This last series of questions are about you, the park visitor. All of your responses are voluntary and will be held in strict confidentiality. Your answers will be extremely important in ensuring that the City provides recreation opportunities for all of its citizens. First, we are interested in understanding how far people travel to get to this park and what neighborhoods are now using this park.

14. What is your street address? (if respondent refuses, ask for nearest intersection, if still refuse get zipcode)

Street Address _____ (Do not take the individual's name)

City _____ Zipcode _____

15. In what year were you born? Average Age = 47 Years

16. Which of the following categories best describes your race and/or ethnic background? (check all that apply)

<u>76%</u> White	<u>1%</u> American Indian or Alaskan Native	<u>1%</u> Asian
<u>7%</u> Black or African American	<u>0%</u> Native Hawaiian or Other Pacific Islander	_____ Refused
<u>13%</u> Hispanic/Chicano/Latino	<u>2%</u> Other, specify <u>Combination, Syrian</u>	

17. Into which income group would you say your household fell in 2007? (circle one)

<u>5%</u> \$10,000 or less	<u>28%</u> \$40,001 to \$60,000	<u>8%</u> \$100,001 to \$120,000
<u>6%</u> \$10,001 to \$20,000	<u>17%</u> \$60,001 to \$80,000	<u>5%</u> \$120,001 to \$140,000
<u>14%</u> \$20,001 to \$40,000	<u>13%</u> \$80,001 to \$100,000	<u>6%</u> Over \$140,000

18. Our last question, in your own words, is there anything else that the City of Allentown could or should do to improve this park? (Interviewer – have respondent write down his/her response in the space below & make sure you can read it before respondent leaves)

See Appendix C. of this report for complete transcript

That is the end of the survey. Thank you very much for your participation!

Appendix B.

Data Collection Schedule

July 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4 Independence Day	5
6	7	8	9 Survey Training 8:30A-11:30A	10	11	12
13 AM	14 AM	15	16 AM	17 AM	18 AM	19 PM
20 AM	21 PM	22 AM & PM	23 PM	24	25 PM	26 AM
27 PM	28 AM & PM	29 PM	30 AM & PM	31 AM		

TIME SHIFT KEY: AM = 8A -12P, PM = 4 - 8P

August 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3 PM	4	5	6 PM	7 AM & PM	8 AM	9 AM & PM
10 AM & PM	11 AM & PM	12 AM & PM	13 AM & PM	14 AM & PM	15 AM	16
17 AM	18	19	20 AM	21 AM	22 AM & PM	23
24	25	26 AM & PM	27 PM	28 PM	29	30
31	1					

TIME SHIFT KEY: AM = 8A -12P, PM = 4 - 8P

September 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Labor Day	2 PM	3 PM	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

TIME SHIFT KEY: AM = 8A -12P, PM = 4 - 8P

Appendix C.

Transcript of Visitor Open-ended Comments

Response to the Question:

In your own words what is the single most important benefit of this park?

Health
Beauty, quiet
Clean water
Flowers, landscaping
Flowers, landscaping
Freedom, relaxing area
Lifestyle
Health and nutrition
Safety and cleanliness
Relaxing
Beauty
Health
Relax and enjoy nature
Fishing stream
Physical well-being
It's a positive impact on the city
Pool
Improving health
Enjoying what's here
Peaceful and beautiful
Exercise
How relaxing it can be
Achieving great exercise
Gives dogs a good place to walk/be free
Relax
Relaxing - watching games
Fun
Place for people to interact
A great place to be in the summer
The basketball games during summer attract people
Makes me happy
Health
Nature
Trails
Walking in this park
Relaxful exercise
Environment friendly
Nice and Relaxing

The walkway/path for dogs/jogging
Exercise
Watering sports
Ease in getting to for special events
Volleyball
Watching basketball
Opportunities for players
Sports festivals
I enjoy it
Great outdoors/exercise
Gets me out of the house
Nice to watch different activities
Eventful weekend
Sportsfest
Do something different/experience
Sportsfest
Sportsfest
It is fun to watch and walk around
Sportsfest - something different to go to
Exercise, well being
Safe place to walk
Benefit my health
Beauty of nature
Beauty
Health and well being
Walking in a natural environment
The beauty of it
Its beauty
Outdoor activity and health
Open Space
Safe, picturesque place to be outdoors
Paths and mile markers
The exercise
Exercise
It's free. Pure enjoyment
Variety of activity
Sense of community and outdoors
Just being in a green space and being outdoors
Nice park

Walking

A beautiful place to gather for health for anyone

Space

Fresh air

Open and availability

Availability and Space

Peace of mind

Natural open space

Variety of things to do

Great for kids

Health

Being able to run, close, privacy

Available, inter-mingle

Lack of vehicle traffic

Nature, trails

Enjoy walking through nature

Fresh air, shade, tranquility, view

Keeping it green!

Health

Grass area, large open space

Walking in a beautiful serene setting

Good exercise

Quiet, nature

Health, walking w/ friends

Safe place to run

The area is beautiful and quiet

Flowers

Trails to run

Beauty and quietness

Volleyball Courts

Facilities, sport courts

Open space

Good environment

It feels safe

Safety

Safety and wellness

Increase good health/location of park

Exercise and beauty

Beauty and location

Location and beauty

Relaxing

Opportunity to exercise, relax and enjoy nature

Exercise

Trails

The trails

Exercise

Closeness to where we live

Jogging

Basketball courts

Basketball and Volleyball courts

Swimming

The opportunities for kids to play outside

Easy access to get to

Leisure

Great place to enjoy nature

Being outdoors and exercising

Availability

Brings people together

A place where the community can enjoy the outdoors

Open space and fresh air

Great place to run

Country atmosphere

Exercise and fresh air

Safe place to walk

Stress relief

Exercise - for myself and dogs

Swimming

Relaxation

Basketball

Enjoy the outdoors

Enjoying the beauty while exercising

Different place to go

Different place to be

Relaxation, openness

Ability to run freely

Paths

Physical activity

Trails, easy, no hassle

Walking

Scenery

Trails, open space

Intriguing

Many parks in Allentown

Basketball

Open sport courts

Provides a haven of peace and quiet
 Feeling safe
 Physical fitness
 Peace of mind/peaceful
 Calm, relaxed, stay in shape
 The natural beauty
 A place of natural beauty that enhances life
 Good place to get outside and relax
 A nice place to have lunch at
 Close by, bike trails
 Exercise
 Open space, clean and safe
 Clean, safe and beautiful
 The view
 Giving people a place for outdoor activities
 Seeing people/good time for family
 Gives people a place to be for a couple hours
 Peace of mind
 A place to relax and exercise
 Place to exercise
 Safe place to run/bike
 Having a beautiful place in nature to get away
 Volleyball nets
 A place for people to come and get away
 Trees
 Accessibility
 Its beauty and natural surroundings
 Relieves stress and beautiful place to be
 Quiet - relaxing atmosphere
 Open space and exercise opportunity
 Good walking and proximity to residence
 Love nature
 Exercise, peace of mind
 Scenery pleasant
 An oasis in the city
 Open to everyone
 Location, amenities
 Great for walking
 Exercise
 A great way to relax
 Relaxing/exercise
 Open space
 Basketball
 Sense of community, reducing crime

Quiet
 Location
 Large
 Exercising
 Beauty
 The creek
 Beauty
 Peaceful
 Relaxation
 Close to home and safe
 Close, safe and clean
 Quiet
 Health, open area
 The park being used
 Outdoor activity and friendships
 Ability to spend time with nature
 A place to exercise
 Availability
 Exercise
 Making the city beautiful, open space
 Clean and fun for family
 Swimming lessons, nice for senior citizens
 Relaxing
 Good place to exercise
 Nature
 Gets me out of the house
 Great place to exercise
 Having fun
 Volleyball
 Volleyball
 Basketball
 Historic
 Easy access to walking
 Beauty and walking
 Safety and clean
 Preserve natural beauty and physical
 Beauty and allows connection with nature
 Peaceful, clean, friendly
 Variety of things to do
 Swimming
 The pool
 Spending time with family and friends
 Beauty and relaxation
 Spending time with family

Picnic
 Outdoors/picnic
 Great for running
 Walking my dogs
 Chill, relax, swim
 Swimming
 Walking
 Get away/relax
 Jogging
 Walking
 Convenience
 Exercising
 Health and exercise
 Health
 Relaxation and exercise
 Natural beauty and exercise
 Exercise
 Open space and safety
 Basketball courts and availability
 Natural space
 Place to get away from the city life
 Sense of open space in urban environment
 Opportunity to get outside
 Outdoors
 Exercise
 Walking with my dog
 Exercise/Outdoors
 Staying connected with the outdoors
 Running
 Spending time at park with husband
 Serenity
 Staying healthy
 Safe walking environment
 Quiet
 Scenery
 Beautiful
 Gives kids a place to go
 Health benefit
 Mayfair, Sportsfest
 The walking paths
 Exercising
 Quality time alone
 Peace and quiet
 The walking trail and rose garden

Safe place to exercise
 It's beautiful and has lots of open space
 Fresh air
 Natural beauty
 Cleanliness and beauty
 Calm, relaxing area.
 The beauty and relaxation of being outdoors
 Safe place to walk the dog
 Various elements within the park
 Accessibility and aesthetics
 Peaceful place
 A haven for running and walking
 A place for our sun to meet dogs and other people
 It's a nice place
 Serenity and beauty
 Moderate exercise and a chance to get peace
 Improves mental well-being
 Peaceful, enjoyable, friendly...
 It's beautiful
 Friendly people and health benefits
 Tranquility and serenity
 Safe nature area in the city, helps the environment
 Everything
 Pleasant park
 Selling point for development
 Beautiful nature
 Exercise and nature
 Outdoors, meeting people
 Open space
 Place outdoors
 Beauty of open spaces and nature, safety
 Open spaces, fields
 Stream and pleasant picnicking
 Beautiful exercise location
 Exercise, well maintained
 A sense of community
 Be in touch with nature, healthy
 Beautiful places to exercise
 Exercise
 Fields for football
 Picnic areas, tales, BBQ
 Provides a place for community to gather in nature

Beautiful nature in the city
Beautiful exercise location
Allentown is known for its parks
Quiet exercise in nature, serenity
Preserve nature and exercise
Exercise outdoors
Kids have a place to play/exercise
Fields in the city
Park for picnic and kids
Exercise outdoors in the city
Provides safe outdoor exercise
Natural environment for exercise
Nature in the city
Allentown is known for its parks
Basketball courts
Exercise outdoors with scenery
Sport and play and exercise locally
Outdoor exercise near home
Health
Scenery
Proximity convenient
Trails
Easy to get to
Trails, pool
Preserving nature, beauty, safe
Outdoors, close by, wildfire
Learning how to swim, interactive
The environment for the people
Path wider over years
Exercise

Beautifies Allentown
Health and well being - beauty/natural
Relaxation, jogging
Environment
Trails - no traffic
Beauty, convenience
Relax, meditation, walking, ducks, gazebos...
Relaxing, stimulating for dog, unstressed
Given an alternative for kids
Relaxing
Benefits health
Health and wellness
Exercise opportunity
Right size
Peace and relaxation
Pool, walking and bike trail
Safe place for kids to have fun
Relaxing
Outdoor recreation/exercise
Beauty and it's never been tampered with
Overall quality, nice area
Accessible
Everything
Rose garden and botanical space
Physical
Green space
Cleanliness and safety
It just being here
Expanded space for recreation

Response to the Question:

Is there anything else that the City of Allentown could or should do to improve this park?

- Satisfied!
- Overall aesthetics could be improved, Restrictions on picnic area trash, Important to connect.
- More pet friendly
- Two more bridges between lake and off street
- Keeping up with flowers
- More areas to get water and more parking
- Pets should be on leashes
- Water fountain, small part for children
- Nothing!
- More days to ride a bike, trail to cedar creek parkway
- Redo the trails and paths, new path that goes through the park (cuts it in half)
- Leave it as is
- Add a bathroom, create a system where people must pick up dog poop
- Don't change the stream
- Don't attract more people
- Fix bathrooms, get the water fountains working, connect to Trexler
- More programs for kids throughout the summer
- Preserve land and nature
- Improve safety, have police reserves patrol the parks more
- Clean up the ponds and the borders around the rose garden, more sculptures, modern benches for older adults
- Trexler park lake needs to be in better shape
- Very relaxing
- Better snack bar
- Bathroom by plateau
- Lake needs improvement
- Pond/lake needs some cleaning, dog park
- Create a dog park
- Enjoys volleyball courts, maybe add more courts and clean them up
- Dog park, lake needs work
- Restrooms should be open to public, not port-o-potties
- Larger, more noticeable bicycle signs, keep walkers out of the bike lane, arrows on bike path, better signage around the paths
- Connect to Cedar Creek
- Improve the signs, specifically the trails sign. Make it visible, enforce the rules
- Add path to the creek, add a dog park
- More flowers, renovate the picnic facilities, more patrol (park police)
- Increase bus transportation to the rose garden
- Improve bathrooms, more bike paths
- Connect park systems, have a park ranger to help with questions or concerns.
- Allow picnics at Trexler park, allow Frisbee games at Trexler park, play area
- Sunbathe, picnic, playgrounds, need to be able to play in Trexler park
- More fun activities like swimming pools, basketball courts
- Keep it safe for youth - maybe Allentown should get involved with the Mural Arts Program.

- More activities to improve health for the elderly, such as Tai chi
- More bathrooms
- Handicap parking spaces, more signs for park
- Add restrooms and water fountains
- Advertising the parks more, more community events, more good art in the park
- Accessible transportation to parks, paving all walkways in the parks, providing security during and after hours, bringing the community together w/ outings and block parties, etc.
- More events
- Would like to see a dog park established - Allentown Park System is one of the best things about the city!
- They're doing an excellent job
- More water fountains
- Keep up good work for the kids
- Volleyball nets
- Dog cleanup
- Water fountains not cold, distance markers
- Keep it as is
- Keep as is. He said roses can't grow and stay beautiful in Florida. It's nice to view the beautiful flowers
- Keep as is. Wants to be able to come back next year and have it be the same.
- Need to help cut down trash
- Soccer field
- Volleyball net
- Love the parks. Some musical events at the park and at Trexler would be great. A band shell in Trexler would be great!
- Can't think of any for this park.
- Keep the parks nature friendly
- Distance at the loops of Trexler Park, water fountain at loops
- Unpaved running trail along existing running trail, make park bigger
- Retain the parks - they are to be here for the future generation and should not be looked at as an opportunity to make money
- Monitor dogs (leashes, dumping)
- Volleyball lines painted, drain where volleyball area is because ball gets wet when it rains also muddy
- Restrooms fixed, empty the johns on a regular basis
- Trim tree branches
- I like the parks best as passive parks. I don't think any other programs are necessary
- More police patrol
- More water fountains, build another bathroom, clean the lake
- Spread out the parking spaces, create additional parking, no bicycles allowed
- More trash cans, more trees and beaches
- Implement the remembrance tree program, plant more trees, monitor the dogs and their owners, more signage
- Restrooms and changing rooms in the pool area need to be redone, create an outdoor ice rink
- Increase signs around trees and flowers identifying them, give each tree an identity, more benches around the creek, build a playground
- Ponds need cleaning, vending machine for bottled water
- Pond needs cleaning, water supply (vending)
- Easier crossings across Cedar Crest Park to rose garden
- Better food at snack bar
- Increase police activity
- More water fountains

- Make sure dogs are on leashes, enforce the rule, improve the quality of the stream to prevent it from overflowing, update the pool, build a playground
- Keep dog's leashes on 6' leashes, enforce the rule, make sure dog owners pick up after the dogs, upgrade and update the pool facilities including restrooms, don't let the public city pool open to bus loads of tourists
- Build a playground
- Leave it as is
- Repair or replace exercise stations around the trail, more benches along the creek and trails along with picnic tables, build a playground by the pavilions, trashcans and bags for dog poop
- Create ecological project for pond perhaps environmental majors at nearby colleges or Rodale Research team, speed regulation road
- Biking problems, clearer bike paths, water fountains, pond needs cleaning
- Bathrooms need upkeep, upkeep water ponds, overall park is excellent. I have been coming here from 1991 to present time
- Adding another bathroom, dog bags are great
- Better food/different food at snack bar
- Better bathrooms
- Love it, feels it is very well maintained, bicyclists sometimes don't follow rules
- Takes care of someone who is in a wheelchair and the path is too bumpy, she would like some type of smooth path that leads down to actual trails for walking
- Skateboarders don't follow rules, bicyclists going too fast, no park guard, people feeding animals
- Lakes must be maintained
- Drinking water not turned on
- Don't create trails/paths that connect to nearby neighborhoods or parks because in years to come it will create problems and/or areas where children will start crime
- Dog park - willing to help
- Real art/meaningful statues
- Bathrooms are disgusting
- More benches, Additional bathroom facility, more water fountains
- Turn the water on earlier in the spring and make sure the bathrooms are up and running
- Somehow protect the wildlife because the park is surrounded by roads
- More lenient as far as activities, allow Frisbee throwing everywhere, More water fountains
- Clean up after the ducks by the lake, more stuff for the kids
- Keep up the maintenance, particularly the retaining walls around the ponds near the rose Garden
- I used to be able to park near the lake and walk around it; not it is blocked off. I would like to do that more easily in the future
- Clean and take care of the bathrooms and upgrade them.
- Get the bathrooms fixed. The port-o-potties have poop up to the seat. It is disgusting.
- Trexler needs a playground for park goers, not just league. Need more water fountains, access to Cedar Creek and better bike access in Cedar Creek
- Allow use of grassy areas
- Fountains at other areas in park, fountains for dogs, baseball diamond
- Nothing much, dogs on leashes
- Do something to improve the quality of water in the pond!
- Improve the pool floors, more water fountains
- More bathrooms
- I feel the downtown misses out on the park and would like to see more public transport (free of charge) to the park from the center city
- Bring it back to the 70's. More parks
- More police surveillance

- Cleaner bathrooms, more security at parks
- More trash cans, be able to feed ducks
- Let us feed the ducks
- More activities for older people
- Keep it a priority in the city's budget
- More things for the youth
- Entrance to Trexler park should be one-way
- From out of town, first visit. But it looks great so far.
- Should permit in-line skating
- Keep up with maintenance
- Bathrooms, more cold water fountains
- Vending machines, Bikers need own lane
- Increase positive atmosphere
- Park benches
- Put telephone midway of the park
- Stay the way it is. No dogs
- Need a dog park
- Fountain so water isn't stagnant
- Keep them open
- More fountains, enforce dog rules
- Keep up with maintenance, especially dogs
- Improve restrooms, clean out garbage
- More benches at cedar creek
- More restrooms, more trees
- Maintaining pathways
- Patrol park, monitor bikes and dogs
- Improve bathrooms
- Maintenance of athletic equipment, direction signs to park for signs that tell you about the park
- More park programs for kids
- Clean up the beach, make facilities nicer
- Bikers stay in own lanes - can be dangerous
- Bathrooms too hot, more water fountains
- Great place for relaxing - retired
- Vending machines - water and energy drinks
- Bathrooms need to be in better shape
- More events at Cedar Beach for older group
- Flower gardens at Trexler
- Fix stone wall at lower entrance, fountain in lake
- More water fountains
- More advertising
- Continue to maintain parks
- Keep it peaceful, love it as it is
- Keep maintaining, more water, better bathrooms, more signs on the street to let you know where the parks are.
- Improve pool
- Better bathrooms
- Look out for the flowers
- Bring back dancing under the stars, make more handicap accessible
- Lighting for evening, more benches

- Benches/picnic tables
- Picnic tables
- My dogs love the park
- Snack bar/some variety, Looks forward to coming back swimming
- Wish it was closer, a great place to walk/relax
- Love coming to Cedar
- Have some police/security patrol, more structured youth activity, not just people hanging out
- After school programs in parks
- More benches
- More trash cans, enforce dog laws
- More trash cans around park, Improve toilets, enforce rules, monitor noise under pavilions
- Keep courts nice, improve bathrooms, more water around park
- Less manicured, more natural
- More garbage cans, no wet grass mowing, dog park
- Wish we were located closer to Trexler park
- Expanding running trails
- Dog park sounds like a great idea
- Must get clean bathrooms, great environment - been coming since I was a kid
- Excellent park, When I visit family in Allentown I am definitely returning to the park
- We come every Sunday to walk and we love it
- Hill more open near General Trexler's monument
- Markings, bathroom 1/2 way, enforcing more people picking up after dogs
- Improve the gardening – e.g. flowers and plant life. Also a zoo would be a nice asset to the park
- Bicycle path, more water activities
- More trails and basketball courts
- Make more hiking trails/basketball courts
- Don't install more buildings, plant more trees and flowers
- Make it like the Velodrome Park, specifically like paths
- Increased security, a playground
- Fix the bathrooms, want a path from Cedar Creek to Trexler
- Improve the restrooms
- Doggie bags for pet owners, more ducks, improve the ponds by the Rose Garden
- Electricity in the pavilions, improve the restroom facilities
- Leave it alone
- Maintain it as you do now
- Build a playground
- More trees, improve the drainage problems, walking path by the water, more bridges across the water, fix tunnel on Ott Street so it becomes a walkway
- Really clean and nice restroom, drinking water fountains, fix the section right in front of the pavilions where there are big rocks on the path instead of cinders
- Clean the garbage out of the parks more often.
- Dredge the lake, clean the lake
- Keep up the general maintenance
- Mileage signs
- The signage needs significant improvements
- Build a shaded playground, More wooded outdoorsy trails (unpaved)
- More water fountains, more pavilions
- Clean the ponds and lake, tighter enforcement on leash laws and feeding the ducks and geese

- Fix the stone border around the ponds by the Rose Garden. Clean the ponds. Replace the umbrella at the fountain in the Rose Garden
- Paved bike paths
- Add lighting, connection with Trexler
- Improve the lake, improve the lighting, bring in park police or park ranger, widen the trails
- Lake water quality
- Bird houses, trashcans, climbing trees, kid friendly exercise route, very happy with the parks.
- Lights and evening use till dark and in winter
- Promote commemorative plaques
- While budgeting, plan to pay for upkeep and maintenance
- More water fountains, add flower gardens
- More drinking fountains, maintain restroom facilities
- Cement walk for Cedar Beach/Rose Garden, more benches and water fountains
- Improve paths, park patrols for safety
- More benches, really need water fountains here
- More benches or flowers at Trexler
- More security or police presence, use bathrooms and not port-o-potties, lights in darker areas
- Increase use with more kids and generations
- Flowers and benches or gazebos at Trexler
- Already in good condition
- More flowers
- Recreation center, rent out for parties
- Flowers, jungle gym
- Not cleaning up after dogs, not feeding squirrels, improving larger parking space
- Bathrooms, swimming
- Bike rental, great condition
- Fish hatchery tree branches are in the way. Improve the lake at Trexler park
- A total connective path/trail interconnecting the park system which would minimize exposure to traffic would be the greatest improvement possible!
- More police at dusk, when people party at night
- More police presence in the parking area, keep park natural, keep dogs on leashes and clean up after them
- Every Saturday, man lets dog loose on purpose, biking on wrong side and too fast, crime watch (car was stolen), improve safety and security at park
- Very satisfied
- Creek maintenance, signs parkway boulevard - slow down, trash cans, dog park
- Bathrooms
- Bathrooms need to be fixed, Allentown is the best
- Paved trails
- Build new pool,
- Duck ponds cleaner, play sets, swings
- Water clean at Trexler, water fountains
- Great facility overall
- Emergency facilities, bathrooms
- Park is great
- Cleaner water - remove trash, more trash cans
- Remove poison ivy, fill groundhog holes
- Keep up good work
- More life guards

- More activities for the kids, a playground
- Upgrade rose garden, widen and pave paths and trails for bike use, plow in winter, increase signage, mileage signs
- Improve sports facilities (tennis, volleyball and basketball)
- Keep up the good work.
- Leave it alone

Appendix D.

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Appendix E.

Principal Investigator Bio-Sketch:

Andrew J. Mowen, Ph.D.

Dr. Andrew J. Mowen is an Associate Professor in the Department of Recreation, Park and Tourism Management at The Pennsylvania State University. He has evaluated park and recreation policies and practices for over fifteen years. Dr. Mowen received his BS from Penn State, an MS in Forestry from Virginia Tech, and Ph.D. in Leisure Studies from Penn State. His doctoral dissertation examined citizen response to corporate partnerships at municipal park and recreation agencies. An article based on his dissertation earned him the *2004 Journal of Park and Recreation Administration Best Paper Award* as judged by members of the American Academy of Park and Recreation Administrators. While completing his doctoral degree, he also participated in a partnership between the PennDOT, DCNR, PHMC, and the PUC to identify procedural and legal barriers in the development of Pennsylvania's rail-trail infrastructure.

Upon completion of his terminal degree, Dr. Mowen worked as the Research Manager for Cleveland Metroparks, a three-time National Gold Medal Award® winning agency. There, he conducted over twenty studies which evaluated the impact of park programs and policies on the leisure preferences and behaviors of Cleveland area residents. He worked on a daily basis with practitioners and policy makers of diverse disciplines in order to improve park decision-making based on citizen input. Dr. Mowen has experience in conducting longitudinal assessments of leisure behavior and management practices. In 2001, he received a grant from the Cleveland Foundation to assess community changes as they related to park use, barriers to use, and citizen attitudes concerning park design. Dr. Mowen also helped to develop a model trail and visitor monitoring system for Cleveland Metroparks, which provided objective recreation and trail counts covering the Park District's entire 20,000 acres and 100+ entrances. This monitoring system has earned him the *1999 Vision Award of Excellence for Management Processes* and was highlighted at both national and international recreation use monitoring conferences.

Since his appointment at Penn State in 2002, Dr. Mowen has focused on understanding the linkages between park settings, physical activity, and health. For example, he conducted a pilot recreation and health campaign evaluation for the Pennsylvania Advocates for Nutrition and Activity. Dr. Mowen also led a study for the National Recreation and Park Association that examined nationwide health partnership practices within the park and recreation profession. He is also serving as a co-Investigator to the study, Physical Education, Recreation, and Community Partners: Promoting Physical Activity (R21 HL 087763-01) and is a Co-Investigator for the 2008-2013 Pennsylvania Outdoor Recreation Plan. As part of that plan, Dr. Mowen studied the physical activity patterns and management preferences of State Park Visitors. Dr. Mowen also conducts studies that link park characteristics (e.g., trail miles, number of parks, park expenditures) with key population health indicators such as physical activity and obesity.

In addition to his work experience, Dr. Mowen has also consulted with a wide variety of public and non-profit agencies including the Pennsylvania Department of Conservation and Natural Resources, Fairfax County Park Authority, Louisiana State University School of Public Health, Active Living Research, the National Park Service, USDA Forest Service, Rails-To-Trails Conservancy, Trust for Public Land, and the Roanoke Rivers Partnership. Dr. Mowen's research and viewpoints can be found in 40 publications representing journals such as the *Journal of Park and Recreation Administration*, *Leisure Sciences*, *Journal of Leisure Research*, *Parks & Recreation*, *Pennsylvania Recreation and Parks*, *Journal of Physical Activity and Health*, *American Journal of Preventive Medicine*, and the *Journal of Non-profit and Public Sector Marketing*. Andrew currently serves as an Associate Editor for the *Journal of Park and Recreation Administration*. He is a member of the National Recreation and Parks Association and the Pennsylvania Recreation and Parks Society.

Appendix F.

Graphical Illustrations:

**Other Allentown Parks Visited by Cedar Creek
Parkway and Trexler Memorial Park Visitors**

Figure 2. Other Frequently Visited Parks by Cedar Creek Parkway Visitors

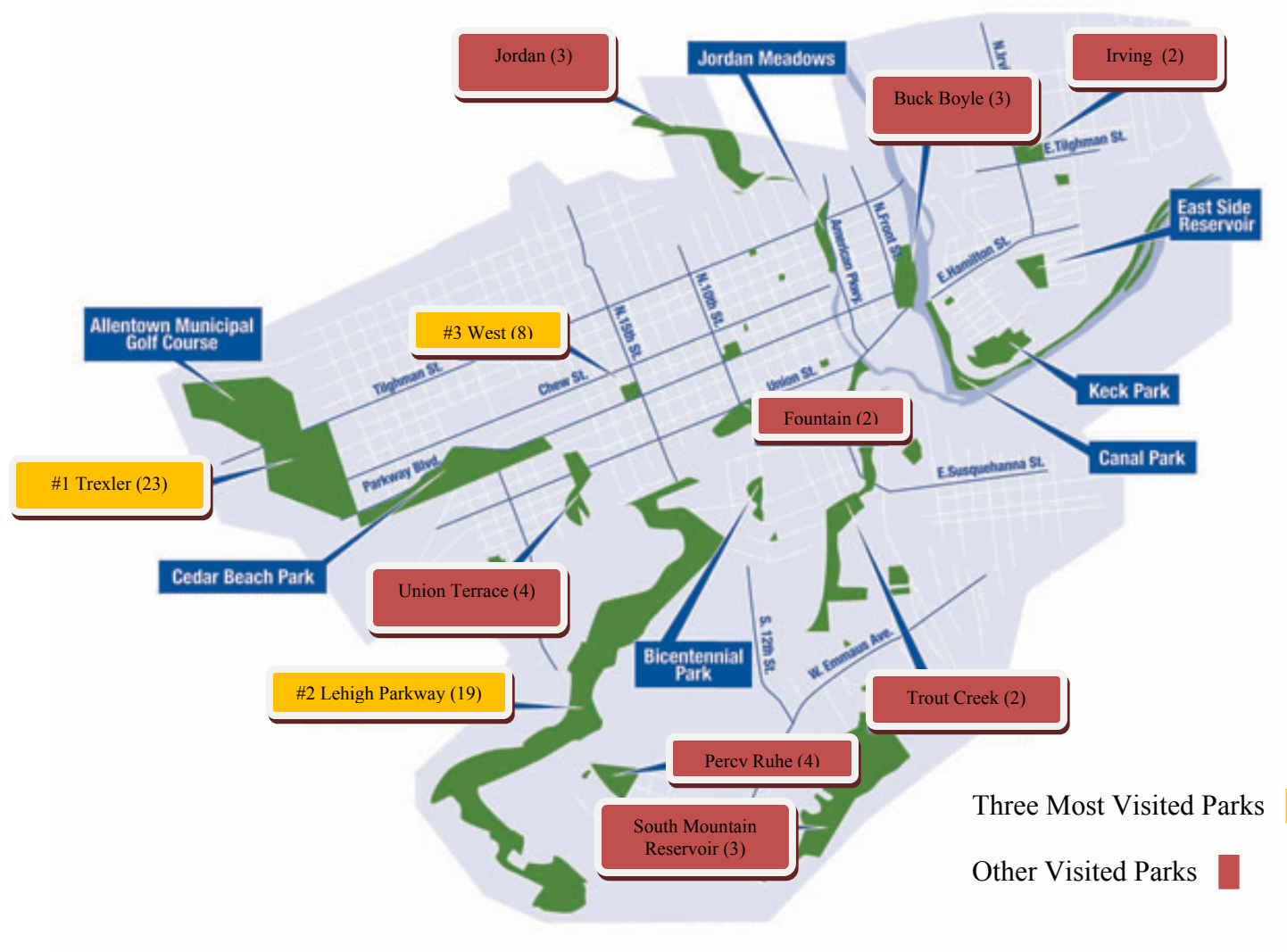


Figure 3. Other Frequently Visited Parks by Trexler Memorial Park Visitors

