

Allegheny County Parks Economic Impact Analysis



Prepared For:

Allegheny County Parks Foundation

Prepared By:

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Pashek + MTR

March 5, 2025



Acknowledgements

We want to thank the following organizations and individuals who helped contribute to this report:

Allegheny County Parks Foundation

- Joey-Linn Ulrich, Executive Director, Allegheny County Parks Foundation
- Ron Schipani, Project Director, Allegheny County Parks Foundation

Allegheny County

- Andrew Grobe, Deputy Director of Recreation, Parks Department
- Melissa Swedish, Deputy Director of Parks, Fiscal/Administration, Parks Department
- Darla Cravotta, Director of Community Affairs & Special Projects
- Kelsey Dowd, Chief Marketing Officer
- Eli Thomas, GISP, GIS Manager, Department of Information Technology

Pittsburgh Botanic Garden

- Keith S. Kaiser, Executive Director, Pittsburgh Botanic Garden

Pennsylvania State University

- Andrew J. Mowen, Interim Department Head, Department of Recreation, Park, and Tourism Management

Executive Summary

STUDY PURPOSE





Given the Allegheny County park system's unique regional recreational amenities and event offerings, its parks attract residents from Allegheny County and the surrounding five-county region (including adjacent Armstrong, Beaver, Butler, Washington, and Westmoreland Counties). The Allegheny County Parks Foundation would like to better understand the impact of the county's nine parks on the local economy - specifically, if visitors are staying and shopping locally, eating at nearby restaurants, and/or purchasing equipment to use (bicycles, golf clubs and balls, archery equipment, etc.) at each of the parks.

Working in collaboration with the Allegheny County Parks Department, 4ward Planning Inc. conducted an economic impact study of the county parks focusing on estimating annual park visitation and park visitor spending generated by non-Allegheny County residents, as spending from these non-local park visitors inject new dollars into the county's economy. Economic impact findings will assist in demonstrating the importance of parks assets to further support park fundraising and other capital investment.

The Allegheny County Parks Foundation has been completing ecological assessments of the county parks and would like to understand each park's potential impacts on air and water quality. In support of previous ecological studies and stream assessments work, Pashek + MTR calculated the avoided infrastructure, property damage, and healthcare costs associated with ecosystem services - that is, what carbon sequestration, air pollution reduction, and avoided stormwater runoff would cost taxpayers absent the ecosystem services provided by county parks.

KEY FINDINGS

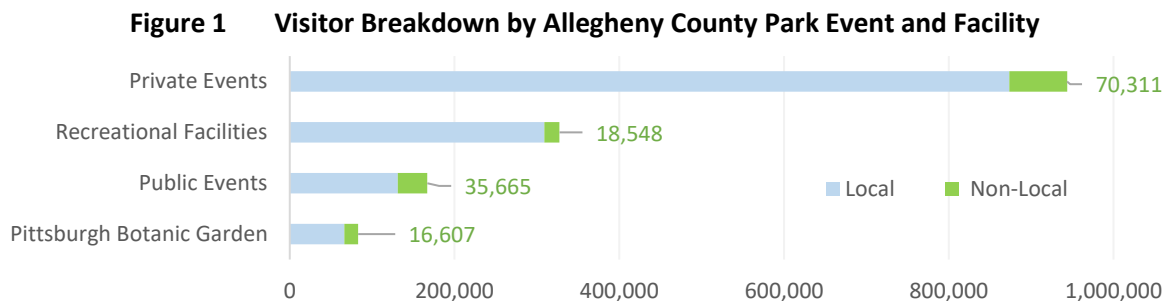
Key findings are summarized below and in more detail in the following section.

VISITORS 	<ul style="list-style-type: none"> • 7.2 million total non-local visitors at ^{visits to} Allegheny County parks • 18,550 non-local park visitors at recreational facilities • 35,670 non-local park visitors at special public events at parks • 70,310 non-local visitors due to private events at park venues • 16,610 non-local visitors at the Pittsburgh Botanic Garden • 144,130 total non-local visitors at special events and park facilities ^{141,140}
SPENDING 	<ul style="list-style-type: none"> • \$2.8 to \$14.1 million in direct spending from non-local visitors • 13 to 64 total jobs supported per year • \$658,220 to \$3.3 million in total labor income • \$1.0 million to \$5.1 million in total value added • \$1.7 to \$8.6 million in total economic output • \$28,230 to \$ \$141,130 in county sales tax revenues • \$155,472 in earned income tax revenue • \$18,600 in local services tax revenue
REAL ESTATE 	<ul style="list-style-type: none"> • 7,660 single-family properties within 2,000 feet of a county park • \$1.6 billion in county assessed property values within 2,000 feet • Almost \$87 million in total real estate premium within 2,000 feet
ENVIRONMENT 	<ul style="list-style-type: none"> • 9,180 acres of tree canopy • \$1.7 million per year in carbon sequestration value • \$1.1 million per year in stormwater management value • \$3.0 million each year in air pollution reduction value • \$5.8 million in total annual tree cover value • \$53.7 million in total carbon storage value

Park Visitors

Non-Local Park Visitors at Selected Park Events and Facilities

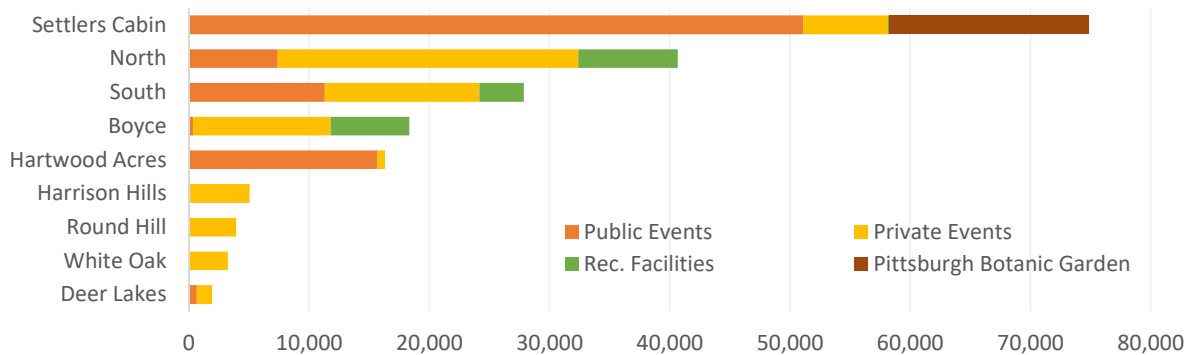
- Selected Park Recreational Facilities:** From 2021 to 2023, the nine Allegheny County parks recreational facilities with admission data (two golf courses, four pools, two ice rinks, and one ski slope) attracted an average of approximately 18,550 non-local visitors per year (5.7 percent of park facility users). Among these nine park facilities, the ski slope in Boyce Park attracted approximately 6,520 non-local visitors per year (23.2 percent of all annual ski slope patrons). The two ice rinks at South and North Parks attracted approximately 11,080 non-local visitors per year. The four pools at South, North, Settlers Cabin, and Boyce Parks attracted approximately 560 non-local visitors per year. The two golf courses at South and North Parks attracted approximately 450 non-local visitors per year.
- Public Special Events:** In 2023, Allegheny County parks hosted 140 days of special events open to the public, with 73 percent of these events occurring in the warmer months (June through September). Approximately 35,670 non-local visitors attended these public events (21.4 percent of all public event attendees). Notably, the 28-week summer concert series held at amphitheaters (in Hartwood Acres, South Park, and North Park) had the greatest total non-local visitor event attendance (24,060 persons).
- Private Special Events:** In 2023, private park rentals and recreation events at Allegheny County parks were attended by approximately 70,310 non-local visitors (7.5 percent of all park event attendees). Notably, 8.1 percent of park facility renters lived outside of Allegheny County, with 1.4 percent living outside the five adjacent counties and 2.2 percent living outside Pennsylvania. These non-local visitors traveling from outside the immediate region to rent a county park facility are those most likely to represent non-local overnight visitors to the county.
- Pittsburgh Botanic Garden:** In 2023, Pittsburgh Botanic Garden had 83,007 total visits (includes admission, and attendance at educational offerings and special events) including 16,607 non-local visitors (20.0 percent of all visitors).



*Note: Non-local visitor counts labeled in green. These represent residents from outside Allegheny County.
Source: Allegheny County Parks Departments, Pittsburgh Botanical Garden*

Allegheny County Parks Economic Impact Analysis

Figure 2 Non-Local Visitors by Park Event and Facility

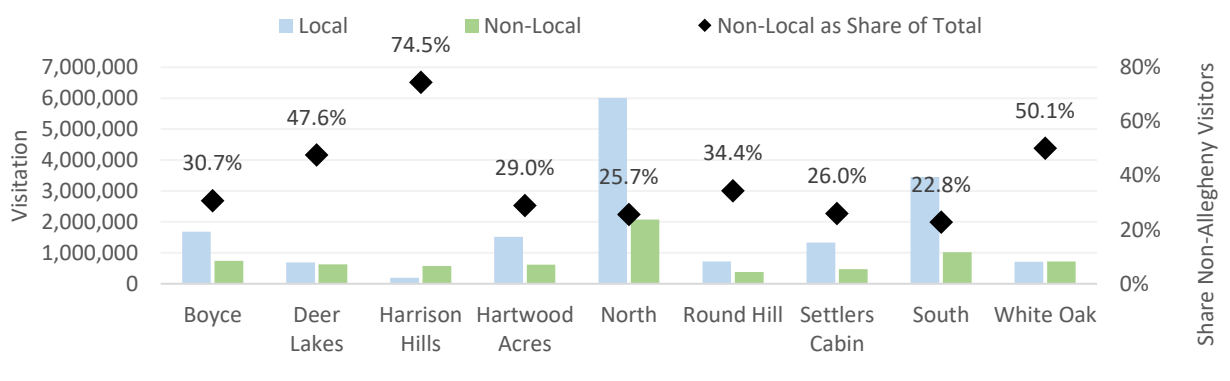


Source: Allegheny County Parks Department, Pittsburgh Botanical Garden

Total Non-Local Park Visitor Estimates

- Total Park Visitation Estimates:** In 2023 it is estimated that Allegheny County's nine parks were visited 23.6 million times, including 7.2 million visits from residents living in the surrounding five counties. (30.8 percent of all park visits). This estimate captures all park visitors, including those not included in the above selected park events and facilities (e.g., hikers, bikers, picnickers).

Figure 3 Total Park Visitation Estimates



Source: Adapted from Andrew J. Mowen, Ph.D., 2022 Allegheny County Park Visitation Estimates from a Regional Telephone Survey, March 2023; 4ward Planning Inc.

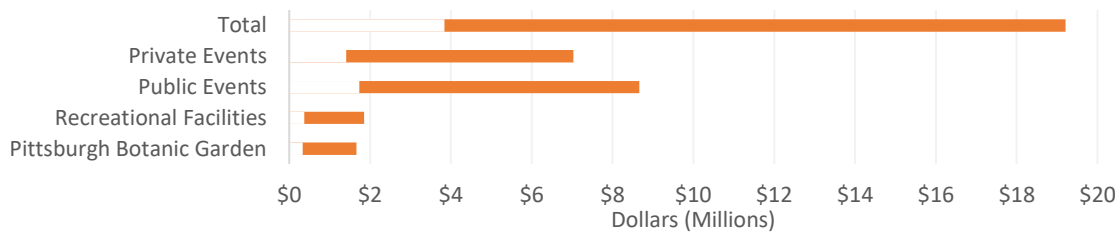
Economic Impact

Estimated Non-Local Park Visitor Spending at Selected Park Events and Facilities

- Spending per Visitor:** Based on findings from comparable county park case studies and interviews with businesses near Allegheny County parks, non-local visitors at selected Allegheny County park events and facilities are estimated to spend between \$20 and \$100 per person on trip-related food and beverages purchases (representing a low and high scenario).
- Direct Spending:** Direct spending from the approximately ^{141,140}~~141,130~~ non-local visitors at selected Allegheny County park events and facilities is estimated to be between \$2.8 million (low scenario) and \$14.1 million (high scenario).

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Figure 4 Total Direct Non-Local Visitor Spending Range



- Total Economic Impact:** Direct visitor spending from non-local visitors at selected Allegheny County park events and facilities would support between 13 and 64 total jobs per year and generate between \$658,220 and \$3.3 million in total labor income, between \$1.0 million and \$5.1 million in total value added, and between \$1.7 million and \$8.6 million in total output (value of all sales of goods and services) within Allegheny County.

Figure 5 Economic Impact: Employment Range

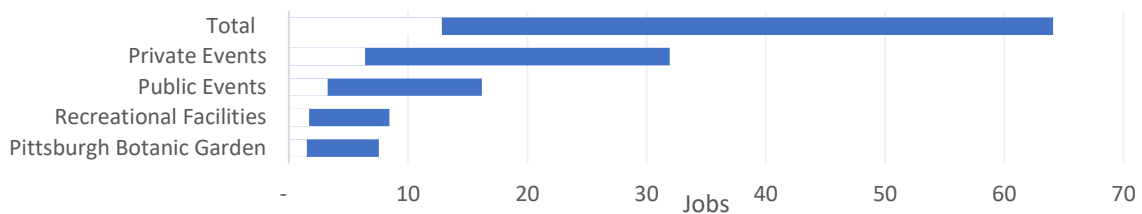
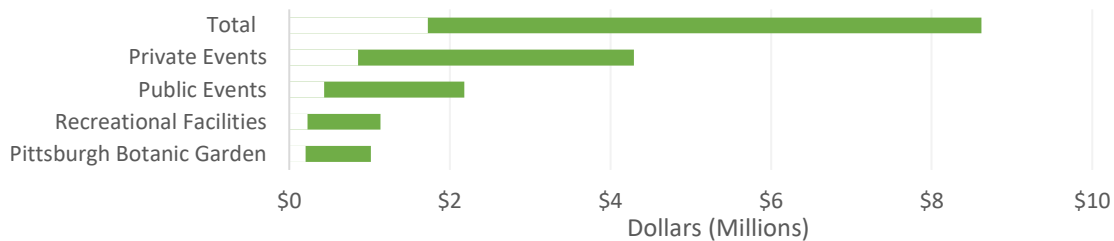
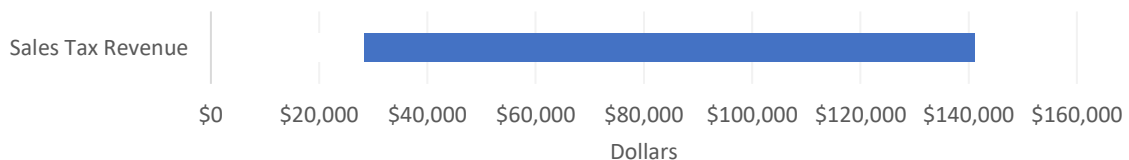


Figure 6 Economic Impact: Economic Output Range



- Local Tax Revenues:** Sales tax revenues collected by Allegheny County's Treasurer's Office associated with total non-local park visitor spending ranges from \$28,230 to \$141,130. Based on employment 2023 withholding tax data (the latest year available) provided from Allegheny County's Department of Finance, total Earned Income Tax (EIT) withheld for Allegheny County Parks employees was \$155,472 in 2023 and total Local Services Tax (LST) for Parks employees was \$18,600.

Figure 7 Economic Impact: Local Sales Tax Revenues

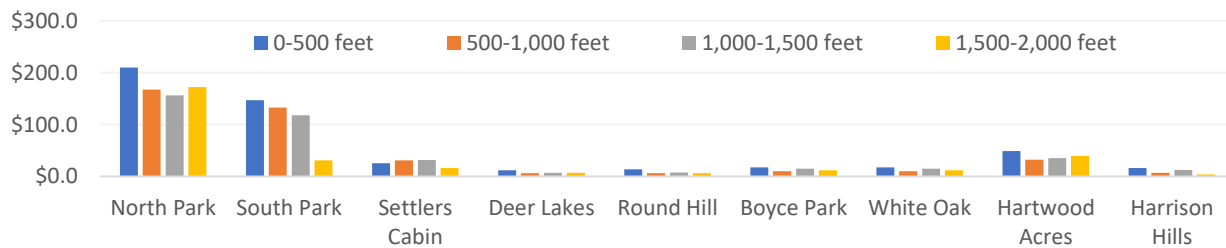


Real Estate Impact

Single-Family Homes

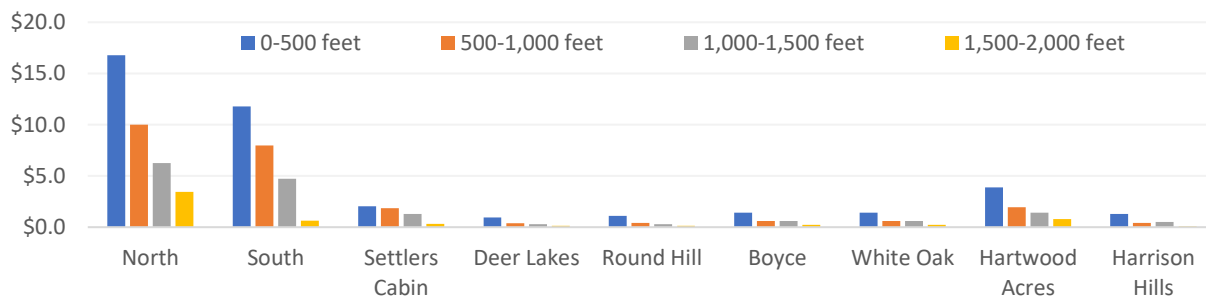
- Single-Family Property Values:** There are 7,660 single-family residential properties located within a 2,000-foot radius of one of Allegheny County's nine parks, with these homes totaling \$1.6 billion in county assessed property values.¹ While South Park (Allegheny County's second largest county park) has the greatest number of single-family homes located within 2,000 feet of a park (2,689 homes), North Park has the highest total county assessed property values for single-family homes located within 2,000 feet of a park (\$704.8 million).
- Real Estate Premium:** Allegheny County's nine parks have an estimated total real estate premium of almost \$87 million and play a vital role in the value of the county's single-family housing stock – a finding confirmed by our conversations with local real estate professionals. Nearly half of this park premium (47 percent) is for single-family homes located within 500 feet of a county park. Seventy-one percent of this total park premium (\$65.5 million) is for single-family homes located within 2,000 feet of North and South Parks.

Figure 8 Total Local Assessed Property Values (Millions)



Source: Allegheny County's GIS Open Data, Western PA Regional Data Center, Allegheny County Parks Department

Figure 9 Total Park Value Premium (Millions)

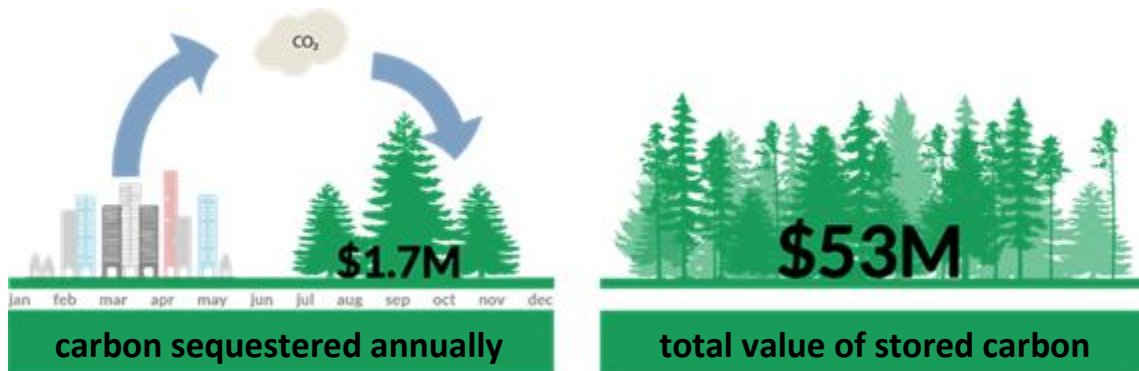


Source: Allegheny County's GIS Open Data, Western PA Regional Data Center, Allegheny County Parks Department

¹ Properties located close to parks often experience an increase in value due to the desirable amenities that parks provide, such as recreation, aesthetics, and open space. This analysis uses a 2,000-foot radius because research has shown that the benefits of proximity tend to diminish beyond this distance.

Ecosystem Benefits

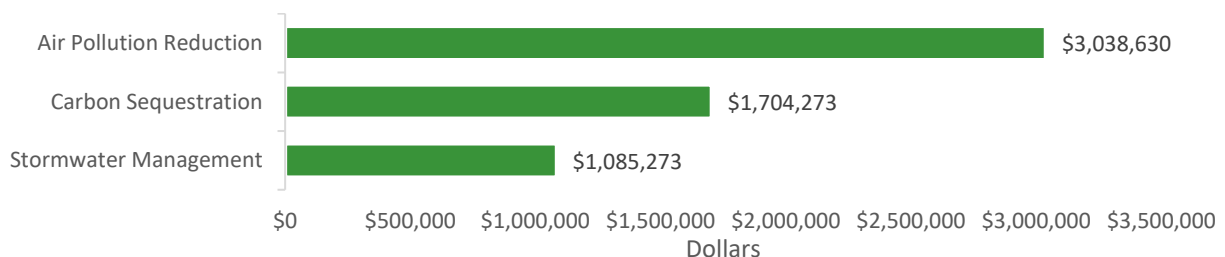
- **Tree Canopy:** Together, all nine Allegheny County parks contain 9,180 acres of tree canopy (76.3 percent of total park acreage). The tree canopy estimates were based on 2023 and 2024 aerials depending on the park's location.
- **Carbon Sequestration and Storage:** Trees act as a sink for carbon dioxide (CO₂) by fixing carbon during photosynthesis and storing carbon as biomass, helping to mitigate the negative impacts of climate change. The carbon benefits of trees in all the parks are estimated to sequester approximately 9,993 tons of carbon annually and store a total of 314,731 tons of carbon. The total estimated value of carbon sequestration is \$1,704,273 per year and an additional \$53,676,316 of carbon stored within the trees.



Air Pollution Reduction: Trees absorb air pollutants (e.g., ozone, particulate matter, nitrogen dioxide, sulfur dioxide, and carbon monoxide) and improve air quality, resulting in cost savings such as reduced healthcare costs and premature deaths. The combined number of trees in each park remove an estimated 664,966 pounds of pollutants from the air each year. The value of air pollution reduction is estimated to be \$3,038,630 each year.

- **Stormwater Management:** Trees help manage stormwater and reduce runoff, ultimately saving costs associated with engineered stormwater management structures and improving water quality by filtering pollutants from the runoff water. The total hydrological calculations estimate 121 million gallons of water captured each year with the avoided runoff value estimated at \$1,085,273 each year.
- **Annual Ecosystem Benefits:** Combined, this amounts to over \$5.8 million in total annual tree value. These values are conservative, as some of the parks are located in denser suburban areas and may actually provide more dollar value ecosystem benefits.

Figure 10 Total Allegheny County Park Annual Tree Benefit Estimates in Dollars



KEY TAKEAWAYS

Economic Impact

Potential opportunities for increasing the economic impact of Allegheny County parks include:

- **The park visitor survey could add new questions aimed at identifying park visitor spending.** To track non-local park visitor spending at Allegheny County parks, the surveys conducted on behalf of the Allegheny County Parks Foundation could incorporate a question on non-local visitor spending (average per person or per party) and by retail category (food and beverage, lodging, etc.).
- **Park attendance and survey data could be expanded.** As demonstrated in the case study analysis (Chesterfield County, Virginia), sporting events have the potential to draw a significant number of non-local visitors from the region. However, while sport tournaments are currently being hosted in Allegheny County parks, the tracking of the number of participants and spectators at these events is limited. Furthermore, school and community group visitors to Round Hill Farm could be surveyed upon tour bookings to better understand the number and home residence of farm visitors. In terms of visitors attending weddings at Allegheny County parks, facilities like Hartwood Acres mansion could conduct brief surveys to categorize non-local wedding visitors by type (day versus overnight) and length of stay.
- **Mobile data could help clarify park visitor trends and consumer preferences.** To capture other park visitors not included in park admission or attendance counts (e.g., hikers, bikers, picnickers), Allegheny County Parks Foundation or Allegheny County Parks Department could purchase third-party location data about park visitors to better identify who is using each park, where park visitors are coming from, how much time park visitors are spending in each park, and what park visitors do before and after they visit each park. Utilizing third-party location data to better understand park visitor profiles and trends was identified by the National Recreation and Park Association as one of the top park and recreation trends for 2024.² Third-party data services like Placer.ai leverage mobile phone data to track demographic, psychographic, and foot traffic data, which could be geofenced for each county park.
- **A study is needed to identify new market-supportable, revenue-generating offerings.** As demonstrated in the case study analysis (Cleveland Metroparks, OH), investment in park amenities and concessions can significantly increase park event attendance and spending. Allegheny County Parks Foundation or Allegheny County Parks Department could hire a consultant to identify additional market-supportable, revenue-generating offerings in the parks (e.g., snack-bar upgrade at North Park).
- **There is an opportunity to expand event and festival offerings.** Allegheny County parks could potentially host annual cultural events not already being offered in the county. As demonstrated in the case study analysis (Westchester County, NY), annual cultural events and festivals (e.g., Italian, Indian, Albanian, Ecuadorian, Irish, and Yiddish festivals) provide unique events that have the potential to attract a significant number of non-local visitors.

² <https://www.nrpa.org/parks-recreation-magazine/2024/january/top-trends-in-parks-and-recreation-for-2024/>

Ecosystem Service Benefits

Potential opportunities for increasing the ecosystem services impact of Allegheny County parks include:

- **Plant more trees.** This could include bolstering weakened areas of the forest (e.g., Emerald Ash Borer damage), planting more street trees, or replacing unused lawn areas with meadows or forest. Planting more trees will have the most ecosystem services impact.
- **Monitor existing forested areas for tree health and canopy loss.** Assess why certain areas lost canopy (e.g., due to development, disease, invasive species, etc.) and determine which actions need to be taken to reduce or stop the losses.
- **Take steps to reduce canopy loss.** This could include invasive removals (e.g., vines that choke out existing trees or dense groundcover that prevents new trees from growing), reducing or eliminating development in forested areas, etc.
- **Create a tree protection policy for the design of new development.** Include site selection assessment, tree replacement standards, and tree protection standards.
- **Replace impervious pavements.** Replace impervious pavements with pervious pavements and maintain them.