# Planning through the Shared Use of Resources

# A Case Study of DeKalb County, Georgia

## Kirsten Cook

Georgia Tech School of City & Regional Planning

MCRP Option Paper

Adviser: Dr. Nisha Botchwey

April 16, 2015



## **Introduction**

In today's planning arena, schools are a critical, but often overlooked, piece in discussions about planning for healthy spaces. Schools are significant not only as educational institutions that serve students but also as substantial amenities that can be leveraged as community resources. One specific strategy by which schools can be deployed for such purposes is through shared use agreements, whereby schools and communities resolve, either through an informal or formal contract, to share the use of their facilities. Shared use agreements are an important strategy for both schools and communities to promote the efficient use of resources and to provide mutual benefits from public and private spaces that facilitate physical activity and improve health.

Currently, many resources exist for schools to more effectively implement shared use. However, such resources are generally lacking for city governments and planning departments. As this study will demonstrate, these arenas are particularly important targets for initiating shared use, and the lack of advocacy and resources related to shared use in these arenas is particularly problematic. In DeKalb County, Georgia, such advocacy and resources are especially necessary considering the specific needs and context of the schools and communities in this district. Through an examination of the existing literature and a study of DeKalb County specifically, this paper makes a threefold argument, which follows that: 1) community-school partnerships that take advantage of shared use agreements can improve community health and well-being, 2) partnerships will be most effective if initiated by the county and city planning departments, and 3) because this practice is largely lacking in DeKalb County, it necessitates a context-specific resource to guide planners in more effective initiation and implementation.

# Literature Review

After a period of being generally overlooked in the field, accompanied by the trend of siting large schools on the outskirts of communities, issues around school siting and the joint use of resources and facilities are seeing a gradual resurgence both in planning literature and practice. This literature review on shared use in schools will trace the background of schools and planning and provide an overview of literature that focuses specifically on the health benefits of shared use, barriers to shared use implementation, current trends, and available resources.

## Background: Schools and Planning

Recent literature from the Center for Cities and Schools has documented that public school buildings occupy a huge percentage of land in the nation and that there are more of them than any other public facility. Public school buildings combined cover an estimated 6.6 billion square feet of space and more than one million acres of land in the U.S.¹ In other words, almost 1% of U.S. developed land is used for public schools alone. Moreover, the kinds of spaces that schools comprise are highly desirable, in

 $<sup>^{1}</sup>$  This calculation is based on 2012 Census Statistical Abstract data stating that, as of 2012, 5.6% of the 2.3 billion acres of U.S. land is developed

that they often include gymnasiums, swimming pools, playgrounds, sports fields, meeting rooms, auditoriums, and other important spaces for community activity (Filardo et al. 2010). As a result, federal, state, and local leaders are increasingly looking to schools as significant sources for creating and maintaining active, healthy communities.

Unfortunately, educational and municipal planning are rarely integrated (Filardo et al. 2014), which makes it difficult for planners to fully rely on schools as a source for healthy communities and for maximizing their benefits to the built environment. School districts are independent governmental entities, generally governed by a board of trustees that has the power to create and operate schools for a specific area. As of 2012, 12,884 school districts existed across the nation (Winig et al. 2013). Although many local comprehensive plans for cities and counties may recognize, to some extent, the close relationship between development and school planning and impacts, the planning in and around these schools is often very separate from the planning of local government entities such as counties and municipalities (Winig et al. 2013, Watkins et al. 2006, Jones et al. 2007).

Moreover, throughout the past several decades, the physical separation between community centers and schools has been accompanied by a widening separation in mutual engagement, ushering in increased distrust and decreased collaboration between these two now-disparate entities. This growing rift between schools and communities has also exacerbated a number of physical, economic, and social challenges in each sphere (Howard et al. 2013). These circumstances are particularly unfortunate in light of the wealth of potential benefits that can be made available to both schools and communities through the shared use of resources.

Despite the current circumstances, this concept is not new. In fact, many schools were originally designed to accommodate community uses, and the literature on schools and planning dates back to the 1920's. One of the earliest sources of school siting was the 1922 establishment of the National Council on Schoolhouse Construction (NCSC), which is today called the Council of Educational Facility Planners, International (CEFPI). The NCSC was formed by the heads of planning divisions from various state departments of education, and it created guidelines first for schoolhouses and, later, for school locations, which were adopted into law among many states (McDonald 2010).

In 1929, Clarence Perry advocated that the best neighborhood plan was one in which schools were located in the center of communities. His reasoning for such placement was to promote schools as the location for community activity, providing opportunities for residents to engage in social, political, and physical activity (Lawhon 2009).

However, as the trend towards urban sprawl evolved following World War II, schools were increasingly sited on urban fringes. This divergence from Perry's concept of the neighborhood unit created a rift not only between the physical location of school and community buildings but also between school and community activities (Agron 2009, Ewing et al. 2003, Kouri 1999, Salvesen et al 2003). Perry's advocacy of the neighborhood unit was followed by an eventual disappearance of this very important concept from planning literature and discussion. In the 1950s and 1960s, comprehensive planners largely relinquished the matter of school siting to school districts and no

longer gave credence to its significance in community planning. This was evidenced in the fact that Planning Advisory Service reports during this time still referenced some siting standards in terms of projecting school enrollments but essentially ignored the question of how the siting and design of schools impacts communities (McDonald 2010). Despite the heavy emphasis today on measuring public education effectiveness, such land use issues around demography and geography, like school siting, have seen a lapse in consideration for quite some time (Wyckoff et al. 2011).

The 1990s emergence of New Urbanism introduced a renewed awareness of the fundamental components of Perry's neighborhood unit and a welcome trend back towards schools as central to communities (Botchwey et al. 2014). Yet the current state of the built environment, with its sprawling suburbs and infrastructure based on distances better accommodated to driving than to walking, continues to present a number of spatial and infrastructural challenges to recent efforts to renew community-school connectedness. As a result of the existing autonomy between schools and communities in most places across the country, society at large forgoes valuable opportunities to progress in planning, sustainability, health, and quality of life (Miles et al. 2011).

Fortunately, recent planning literature and practice have seen a shift in focus back to the relationship between public health and the built environment, recognizing the many different buildings, systems, and spaces that affect health and well-being (Miles 2011, Trowbridge et al. 2014). Being a major component in the built environment, schools have likewise had a recent resurgence in the planning field, particularly in terms of their relationship with community well-being and sustainability (Vincent 2014, Rao et al. 2014, Botchwey et al. 2014, Miles et al. 2011, McDonald 2010). Currently lacking from this literature, however, is a focused assessment of how enhanced coordination between communities and schools can promote public health.

#### Benefits to Health

One of the reasons for this resurgence is the recognition of the many health benefits that can come from enhanced school-community coordination (Miles 2011). Local schools are not only educational institutions but, rather, critical collections of resources that can be used to strengthen entire communities socially, economically, and physically. Similarly, communities can be robust sources of active, strong, and dynamic people and assets. As such, schools and communities can reap significant mutual benefits by seeking out strong relationships, co-location, and shared use of resources and facilities (Chrzanowski 2010, Bingler et al. 2003).

The relationship between physical activity and shared use, in particular, is well-documented in the literature, and a number of entities currently endorse shared use and other school-community partnerships for the purposes of promoting health benefits. Research by the Robert Wood Johnson Foundation, the Centers for Disease Control and Prevention (CDC), and various peer-reviewed health literature has found that the adoption of shared use agreements opens up opportunities for children and adults alike to use school facilities for recreation and physical activity, thereby reducing obesity and other related diseases and health disparities (Kanters et al. 2014, Young et al. 2014, Lafleur et al. 2013, Chriqui et al. 2012). Research has documented that schools are primary factors in preventing

obesity. Such literature not only cites the direct impact of poor nutrition, physical inactivity, and obesity on poor academic achievement but also demonstrates the unique role that schools play in promoting physical activity and providing students the opportunity to expend energy (Vincent 2010).

Shared use can be an especially critical strategy in overcoming health disparities. This is particularly crucial in the case of Georgia, considering that certain unhealthy lifestyle characteristics, such as lack of physical activity and poor nutrition, are especially prevalent among populations in the South (Troost et al. 2012). As of 2013, Georgia's adult obesity rate was 30.3%, placing it as the 18th highest adult obesity rate in the country. The rate of diabetes in Georgia is 10.8%, or 14th highest in the nation. In addition, Georgia is one of only twelve states that do not have competitive food standards as determined by the *Healthy, Hunger-Free Kids Act of 2010*. Although Georgia has some physical education requirements for its students, it is one of 29 states that do not have specific requirements regarding duration and intensity of physical activity in schools (Trust for America's Health et al. 2014).

As such, various federal, state, and local entities have created plans that include shared use agreements in order to reach their set goals for promotion of physical activity and healthy living. The 2010 White House Task Force on Childhood Obesity includes as one of its recommendations for encouraging physical activity that schools increase access to parks and playgrounds via shared use agreements (CDC 2013). Moreover, shared use facilitated government efforts to encourage fiscal efficiency between schools and public or private partners as well as national efforts on the part of smart growth advocates to foster "complete communities" that provide a mix of services and activities at single locations (Filardo et al. 2010).

The CDC and National Association for Sport and Physical Education recommend that schools form a comprehensive school physical activity program (CSPAP), which includes quality physical education before, during, and after school, as well as engagement from staff, family, and the community. Shared use can be a critical facilitator in the effective implementation of a CSPAP (CDC 2013).

Numerous states across the nation encourage shared use for school districts in their statewide construction, education, planning, and public instruction documents. Although Georgia state law permits but does not expressly encourage shared use, the goals of various statewide agencies either directly or indirectly align with the goals of shared use policy (Trust for America's Health et al. 2014). For instance, according to Georgia's 2014-2016 Statewide Comprehensive Outdoor Recreation Plan (SCORP), the state will seek to both "leverage initiatives, programs, funds, and partnerships to advance outdoor recreation projects that directly support active, healthy lifestyles" and "work to improve access to high-quality outdoor recreation opportunities by providing for safe and well-maintained facilities close to where people live and work" (Deal et al. 2014). Partnerships between schools and outdoor recreation facilities can assist in the SCORP goal to address the emerging outdoor recreation needs of Georgia's citizens of all ages.

Clearly, the links between health and joint use have been established on a broad basis in literature. Still lacking, however, is literature that demonstrates how municipal and school planners can collaborate to implement shared use agreements for the express purpose of meeting specific health needs in the community.

## Other Barriers to Shared Use

Unfortunately, a range of factors beyond disparate planning act as barriers to shared use. Existing literature documents a number of public policies, plans, and programs that pose significant challenges to the implementation of this practice. Vandalism, liability, cost, lack of knowledge about implementation, perceptions of unequal benefits, and overuse of facilities are some of the oft-cited challenges faced by schools and communities in successfully implementing shared use and colocation (Howard et al. 2013). A 2011 national survey of school principals in schools that did not allow public use of recreational facilities identified the following reasons for restricting access: liability concerns (60%); insurance (61%); cost of running activities and programs (60%); staffing for maintenance and security (57%); safety concerns (57%); and maintenance costs and responsibilities (55%) (RWJF 2012).

Georgia is one of 38 states across the US that permit community individuals or organizations to use some or all school property (Trust for America's Health et al. 2014). According to 2010 Official Code of Georgia, "Any school board may join with any municipality, county, or any other school board in conducting and maintaining a recreation system" (O.C.G.A. 36-64-4 [2010]). This means that Georgia school districts may grant community use but are not required to do so. As such, Georgia's policies on the external use of existing school buildings and grounds are limited, and encouragement of this concept from state legislation is lacking. Facilities-related decisions and responsibilities have been largely left to the responsibility of local districts. Like many other states, Georgia's school districts currently lack the policies, guidelines, budgets, plans, and governance systems necessary to help district staff navigate the requirements for joint use (Filardo et al. 2010).

Often, false perceptions of legal and systematic constraints play a role in hindering school administrators from seeking out opportunities for joint partnerships with the community. Many fail to realize that, in fact, three sets of special legal rules operate to protect public schools from liability risk during after-hour or non-student recreational use. These include sovereign or governmental immunity, state recreational user status, and traditional common law treatment of "invitees" and "licensees" who use land owned or occupied by others. In Georgia, the Recreational Property Act (RPA), enacted in 1965, adds another layer of immunity for schools in that it limits the duty of care owed to land entrants. The RPA applies to both public and private lands and is intended to encourage public and private landowners to allow the general public to use their lands without charge. The RPA applies to schools in an after-school situation provided that the use is open to the public and qualifies as a "recreational purpose" according to the statute's definition (Mathews et al. 2009).

In spite of these legal rules, however, many public school officials and their advisers worry about liability risks surrounding shared use, fearing that community users of public school facilities might

file lawsuits in the event that personal injury or property damage should take place (Baker 2008). However, past lawsuits that have been filed in various states across the nation as a result of injury or damage on school property have typically resulted in the granting of immunity from liability to the school district.<sup>2</sup>

The large number of people involved in the planning, funding, and building of schools also creates difficulties in arriving at a "harmonious co-location agreement" (Romeo 2004). The many stakeholders can include school board members, administrators, architects, developers, neighborhood associations, state legislators, parks and recreation department commissioners, chambers of commerce, planning commissioners, and city council representatives, among others. Varying ideas and visions will undoubtedly clash when decision-making needs to take place across such a wide pool of individuals and groups.

Another critical issue in the implementation of shared use is that schools often have insufficient staffing to take on the responsibility of overseeing the scheduling, planning, communication, and other logistics involved in coordinating shared use. This means that school administrators are often hesitant to take on greater maintenance responsibilities, specifically regarding funding for renovation, repair, and custodial staff. Perceptions of increased crime and vandalism pose additional potential threats, which lead many school administrators to decline shared use agreements (Spengler et al. 2011, Filardo et al. 2014).

Structural challenges also hamper the formation of shared use agreements in many school districts. Many schools lack both the institutional capacity and adequate staffing to manage and coordinate shared use. Administrators often feel that they need fully developed policies and procedures in order to ensure transparency and accountability in partnering with community entities, yet a policy framework is often lacking (Vincent 2014).

Besides insufficiencies in staffing for maintenance, repair, custodial, and security purposes, many school districts are also lacking in funding to meet these needs. For many school districts, hesitation behind entering into shared use agreements stems from a feeling that doing so might compromise the ability to offer a quality learning environment. School architecture and infrastructure is also often designed solely to be used by a single school rather than to help meet the needs of outside entities, either during or outside of school hours (Filardo et al. 2014). Many schools are particularly unaccommodating of community use, particularly in terms of accessibility and distance from community centers.

As a result of these challenges, shared use practices in Georgia are present primarily amongst charter schools and have not yet become an active norm proliferated throughout public school systems. The reason that many charters are pioneering this concept is largely due to the fact that charter schools in Georgia are forced to spend operating revenue on facilities, and the standard size of charters tends

<sup>&</sup>lt;sup>2</sup> Examples of such lawsuits include *Yarber v. Oakland Unified School District* and *Bartell v. Palos Verdes Peninsula School District*, in which schools were protected from liability for injuries to individuals using the property after hours (Baker 2008)

to be much smaller than that of most public schools (GCSA et al. 2011). As a result, charter schools are often limited in their offerings of specialized instructional spaces and facilities and must instead rely on outside partnerships and innovative solutions in order to secure the space they need for athletic fields, gymnasiums, libraries, and the like.

The challenges for schools, as presented here, are certainly real and significant; however they needn't prevent the formation of school-community partnerships and all that these entail. The creativity and innovation that charter schools have utilized demonstrates that such partnerships can, in fact, be successful and effective.

Greater depth in exploring some of these challenges has the potential to increase the depth and breadth of shared use implementation over time. In general, academic research in the planning field on the approaches and strategies for shared use are only in the preliminary stages. Research up until now has made significant progress in identifying the hurdles, but such research has often failed to focus on the deeper nuances and contexts in which each barrier is embedded (Vincent 2014).

## Current Conditions: Nationwide and in Georgia

Nationwide, formal shared use agreements typically apply to recreation or physical activity, whether indoor or outdoor, and programs for school-aged children either before or after school hours. Agreements applied to adult education programs and preschool or child care programs are much less frequent among school districts with agreements (CDC et al. 2013).

The CDC has conducted four iterations (1994, 2000, 2006, and 2012) of the School Health Policies and Practices Study (SHPPS) in order to examine eight components of school health. According to findings from the most recent study, which used a sample of 1,048 school districts nationwide. 61.6% of districts nationally had adopted a formal shared use agreement as of 2012. Over half of these were established with a local youth organization or a local parks and recreation department (CDC et al. 2013). On the outset, this figure seems rather high. However, it needs to be interpreted in light of the fact that just because over half of the 1,048 school districts in the sample had adopted at least one formal joint use agreement, this does not mean that over half of schools in the nation (or even in the sample studied) have adopted a formal joint use agreement. One school district could include up to a hundred, or even more, schools, and having just one of those schools engaged in shared use would qualify that district as having adopted a formal shared use agreement. There are 132,183 public schools in the US, compared with 13,588 public school districts (NCES 2011). Thus, this figure is not completely representative, and more research needs to be conducted to fully gauge the prevalence of shared use in schools across the nation.

Beyond these numbers, the literature on shared use has yet to offer a complete inventory of schools and school districts that have engaged in these practices, but a review of available resources on the subject shows that a number of examples across the nation abound. Georgia, as well, has yet to

provide an inventory of cases of shared use, and the concept is still lacking in many schools throughout the state.

#### A Framework for Shared Use

Although the current prevalence of shared use agreements across the nation and the state of Georgia in particular has not been inventoried or well-documented, a number of entities have created a wealth of resources that are directed to a variety of levels of leadership to help implement effective shared use in spite of the aforementioned barriers. Some of the organizations and entities providing these resources include: ChangeLab Solutions, Safe Routes to Schools National Partnership, Jointuse.org, Center for Cities and Schools at UC Berkeley, 21st Century School Fund, and Public Health Law Center at William Mitchell College of Law.

Much of this literature provides tools and resources for shared use and joint development of public school buildings and facilities to help establish more robust systems of policy, planning, and management infrastructures. However, few state and locales provide the necessary guidelines and frameworks for implementing shared use and joint development. This leaves school districts and individual schools without a fundamental blueprint after which to model shared use to meet the specific needs of their students and surrounding communities (Filardo et al. 2010). The Tennessee Recreation and Parks Department provides an especially useful resource for the state through its Recreational Joint Facility Use Finder (TRPA 2013). This interactive resource is a critical one that is missing in most states and locales as a comprehensible tool for documenting and increasing the prevalence of joint use in a specific region. Similar, yet more localized, resources in other schools and communities would be particularly helpful to provide frameworks for implementation.

This paper addresses these gaps for the DeKalb County School District and surrounding communities by examining the unique needs and assets in DeKalb County, Georgia, and by analyzing the current conditions of shared use practice in this school district. As a result, the need for a more contextualized resource for shared use in DeKalb County emerges from this case study. Thus, this paper provides a framework and general outline for the future development of a resource to help address the deeper nuances in this context. Furthermore, this study demonstrates how shared use can arise from collaboration between school administration and planners as a deliberate action plan for health promotion through the built environment. As such, other school districts and jurisdictions will be able to model a framework for their own circumstances.

# <u>Methodology</u>

Data collection consisted of a range of methods, including both primary and secondary analyses. Survey compilation and interviews comprised the primary findings, and qualitative analysis of planning documents and examination of health data from secondary sources set a framework for understanding the former. These methods were employed to make the following four assessments:

- 1. The need for the shared use of resources and facilities in DeKalb County schools and communities.
- 2. The prevalence of shared use of resources and facilities in DeKalb County schools, and its benefits.
- 3. The relationships that exist, if any, between schools that engage in shared use and/or:
  - a) Proximity to amenities,
  - b) Educational performance,
  - c) Fitness levels.
- 4. The processes relevant to implementing shared use of resources and facilities in DeKalb County, and the greatest challenges and impediments within.

#### **Survey Compilation**

An online survey was created and sent to each of the 133 principals in the DeKalb County School District (DCSD). The survey asked four questions, all of which were multiple choice with the exception of the first open-ended question about the name of the school. Each of the multiple choice questions also followed with a section for the principal to provide an optional open-ended comment or description. The multiple choice options for Question 2 were adapted from the US Green Building Council's LEED Joint Use of Facilities requirement options (USGBC 2015).

- 1. What is the name of the school you represent?
- 2. Does your school currently engage in a shared use (or joint use) agreement with another group, community organization, or entity?
  - a. Yes
  - b. No

Comment (optional)

- 3. If so, what type of group or entity is the agreement with?
  - a. Recreational facility
  - b. Local library or media center
  - c. Garden
  - d. Health service
  - e. Park
  - f. Local business
  - g. Church
  - h. Other faith-based organization
  - i. Political or civic organizationPlease offer a brief description (optional)
- 4. If you answered "no" to Question 2, does the school administration have a desire to take advantage of shared use in the near future?
  - a. Yes
  - b. No

Please offer a brief description (optional)

The surveys were distributed via e-mail and were collected over a period of three months, during which two follow-up e-mails were also sent. 34 online survey responses were collected. In order to

collect responses from the rest of the schools, phone surveys were administered. In each case, the survey questions were initially directed to the principal or assistant principal. If both administrators were unavailable, the questions were instead directed to the school receptionist or bookkeeper. Only definitive answers were recorded. The phone surveys yielded an additional 61 responses, for a total response rate of 71%.

#### **Interviews**

The following two groupings of interviews were conducted in order to provide perspective on (1) operation of schools at the scale of the district and state, and (2) operation of schools at the individual school level.

*DeKalb County School District (DCSD) and Georgia Department of Education (GADOE).* Four phone interviews were conducted with staff from the DCSD Planning and Operations division as well as with the West Central Georgia Facilities Consultant and the Education Residential Evaluation Specialist from the Georgia DOE. These individuals were selected because of their involvement in the school facilities arena, specifically in regions that include the DCSD. Beyond a few structured questions to guide each of the conversations, these interviews were generally unstructured and open.

*School Administrators.* Seven extended phone interviews were also conducted with school administrators in order to expand upon specific survey questions. Most of the questions referenced either a school's experience with shared use or the administration's hesitancy to engage in shared use.

#### **Qualitative Analysis of Planning Documents**

The Georgia Department of Community Affairs provides a database of both county-level and community-level comprehensive and strategic plans. Assessment of community needs relied on the most recent available documents from this database. The 2005-2025 DeKalb County Comprehensive Plan discusses community issues and opportunities for the entire planning region of DeKalb County and for individual planning areas within the county.

Community assessments were also derived for each of the nine municipalities in DeKalb County. These documents included:

- Avondale Estates Comprehensive Plan: Community Assessment 2007-2027
- Chamblee Community Agenda/Community Assessment
- Clarkston Comprehensive Plan 2025 Community Assessment
- Decatur Comprehensive Plan Update 2005
- Doraville Community Agenda: Future Development Narrative 2006
- Dunwoody Comprehensive Plan: Community Agenda
- Lithonia Community Agenda
- Community Agenda for the City of Pine Lake, 2006
- Stone Mountain Comprehensive Plan 2006-2026

Each of the documents was reviewed in order to determine references to:

- 1. Infrastructural needs in the community
- 2. The desire to pursue or benefits of pursuing school coordination or intergovernmental coordination
- 3. Whether or not such coordination is currently in place or needs to be further addressed

#### **Qualitative Analysis of Public Health Reports**

An assessment of the current state of health in DeKalb County, compared with both national statistics and federal health objectives determined for year 2020, was based on findings from the following:

- 2010 Youth Risk Behavior Survey
- DeKalb County 2011 Communities Putting Prevention to Work (CPPW) Behavioral Risk Factor Surveillance System (BRFSS) Report
- CDC Health Data Interactive
- Community Health Improvement Plan 2013
- Clarkston Community Active Living Plan
- Doraville Active Living Plan
- U.S. Dept. of Health and Human Services Healthy People 2020 Objectives

Following a similar methodology as that employed in the analysis of planning documents, each of these sources was reviewed in order to assess the current state of physical and psychological health, as well as behavioral and infrastructural determinants of health, including physical activity, perceptions of safety, and built environment factors.

#### Spatial Analysis of Amenities and Regression Analysis of Institutional Data

Finally, secondary sources of data were used to determine the existence of correlations between schools that engage in shared use and/or a) proximity to amenities, b) educational performance, and c) fitness examination scores. These analyses were run for the anticipated purpose of testing the following assumptions:

- Spatial proximity between schools and amenities correlates with ease of implementing shared-use agreements,
- Schools with high academic performance are more likely to implement shared-use, and high academic performance is related to shared-use implementation,
- Schools with shared-use agreements also score better on fitness examinations than schools without shared-use agreements.

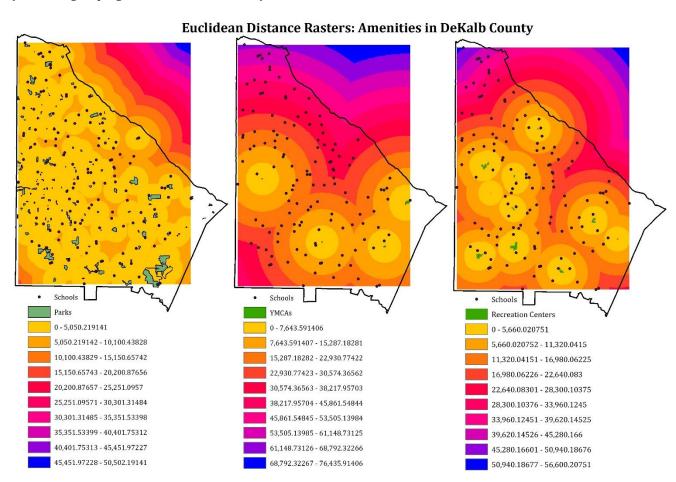
In order to run spatial analyses of schools and their proximity to amenities, the locations of parks, recreation centers, and YMCAs needed to be determined.<sup>3</sup> For determination of park locations, a shapefile of parks was used from Georgia Tech's Center for GIS. Determination of locations for the

<sup>&</sup>lt;sup>3</sup> YMCAs are represented in this paper as a category for individual consideration because of their widespread involvement across the nation in shared-use agreements. They are also a significant amenity for indoor physical activity, particularly in DeKalb County where the DCSD limits shared-use agreements to non-profit or governmental entities (explained in greater detail on page 15).

latter two amenities relied on data from DeKalb County (DeKalb County 2015). A shapefile of these points was then created in GIS.

The first step of spatial analysis was conducted through ArcGIS, and then results were exported to SPSS for statistical analysis. The *Euclidean Distance* spatial analyst tool was first used to create a raster for each of the three shapefiles (1. parks, 2. recreation centers, and 3. YMCAs). Euclidean Distance was used because it measures the straight-line distance between points. Although a different tool like *Cost-weighted Distance* or *Path Distance* may have allowed for more specified analyses, *Euclidean Distance* provided sufficient analysis for the purpose of this study without making assumptions about unknown details, such as travel routes or modes, which may have led to inaccurate results. Then, the *Extract Values to Points* spatial analyst tool extracted the Euclidean distance values for each of the above-mentioned amenities (see Figure 1 below). Finally, the resulting distance values were exported into SPSS Statistical Analysis in order to run *Bivariate Correlation* analysis.

**Figure 1.** (All raster grouping values measured in feet)



Data for educational performance as well as for fitness levels were acquired from the GADOE. The GADOE evaluates the performance of districts and individual schools in the states through a College

and Career Ready Performance Index (CCRPI). The CCRPI is "a comprehensive school improvement, accountability, and communication platform for all educational stakeholders that will promote college and career readiness for all Georgia public school students" (GA DOE 2014). This index gives each school and district an Exceeding the Bar (ETB) score that typically ranges from 0.0 to 2.0. In DeKalb County, the average ETB is 0.8 for elementary schools, 0.2 for middle schools, and 0.2 for high schools. The state average ETB is the same for elementary and slightly higher for the other two levels (0.3 for both middle schools and high schools).

Additionally, the GA DOE evaluates the overall fitness performance of schools through evaluations of students in those schools. Georgia's Fitness Assessment Program relies on Fitnessgram software to evaluate students on a range of different physical fitness assessments. The two measurements used in this study were Aerobic Capacity and Body Composition. Each school is given a percentage value that reflects the percentage of students in the Healthy Fitness Zone (GA DOE 2014 [2]). Twelve DeKalb County schools lacked data for this assessment.

Data from the CCRPI and the Fitnessgram assessments was then extracted into SPSS Statistical Analysis in order to run bivariate correlation analyses between the existence of shared use agreements in schools and performance levels based on these two measurements.

# **Findings**

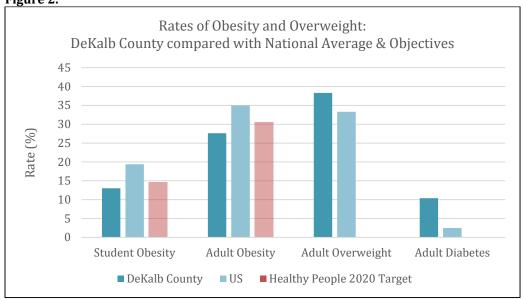
## Assessment of Need for Shared Use

Both the planning documents and the health data pointed to the need for shared use as a solution to infrastructural deficiencies and health problems.

#### **Health Assessment**

General findings from public health reports reveal that rates of obesity, diabetes, and physical inactivity among both students and adults in DeKalb County are generally slightly lower than the national averages as well as the Healthy People 2020 target, but still significant (see figure 2). Although there is no Healthy People 2020 Objective explicitly for adult overweight or for adult diabetes, the rates for both in DeKalb County are about 5 percentage points and 8 percentage points higher, respectively, than that of the national average, likely placing it well below future targets for this category as well.





As of 2010, 17.7% of DeKalb County high school students are overweight and 13% are obese (DeKalb County Board of Health 2010). Comparatively, 2009-2012 data for the national average reveals that 19.4% of 12-19 year olds are obese (CDC 2014). Additionally, 37.2% of DeKalb County high school students meet current recommendations for physical activity. Despite representing a gradual increase from 2005, 2007, and 2009 data (30.8%, 35.7%, and 35%, respectively) and a higher average than national rates, this statistic again represents a significant shortfall.

As of 2011, 10.4% of adults in DeKalb County have diabetes, compared with the national average of 2.5% and the South Atlantic average of 2.9%. 27.6% of adults in DeKalb County are obese, and 38.3% are overweight, compared with the national average for 20+ year olds of 35% obese and 33.3% overweight (DeKalb County Board of Health 2011). Furthermore, 23.8% of DeKalb County residents are physically inactive during leisure time.

These statistics point to a significant need for solutions to increasing physical activity and lowering rates of obesity, overweight, and diabetes in DeKalb County. The 2013 Community Health Improvement Plan (CHIP) further elaborates on these needs, and makes the connection between meeting these needs and increasing the role of shared use agreements. The CHIP also states that "neighborhood walkability and perceptions of safety are generally not very good in DeKalb County" (33, 36). One of the strategies of CHIP is to "increase awareness of opportunities for physical activity for high school students," and its goal is to increase by 5% the percentage of students who meet the current federal recommendations for physical activity, by 2016. The stated action step to meet this goal is to "increase awareness of joint [or shared] use agreements with community partners and schools" (60).

#### **Community Planning Needs**

On a county-wide scale, the 2005-2025 DeKalb County Comprehensive Plan specifies the following planning needs for its communities:

- Policies to promote allocation of resources in order to meet the growing need of recreation facilities and services,
- Provision of well-designed and versatile recreational opportunities,
- Greater amount of parks and recreational facilities,
- Innovative funding sources in order to improve facilities and services.

The Comprehensive Plan also discusses the benefits of school-based clinics.

In addition, each of the most recent planning documents from the nine cities in DeKalb County mentions an infrastructural or recreational need in its community (see Figure 3 below).

Figure 3. DeKalb County cities and their infrastructural/ recreational needs as denoted in community

assessments Chamblee: Constraints parkland development and challenges in allocating open space and recreation Dunwoody: Vacant land DUNWOODY suitable and well-located for parks is limited; lack of control DORAVILLE over much of the city's CHAMBLEE greenspace Clarkston: Deficiency of parks and not much land redevelop for parks Doraville: No long-term strategy for location CLARKSTON maintenance of public service Stone Mountain: Need STONE MOUNTAIN efficiency facilities; additional community PINE LAKE community's services needs facilities increased DECATUR and AVONDALE ESTATES improvement greenspaces LITHONIA Decatur: Park deficiency Pine Lake: Need to establish a community garden and additional park space Avondale Estates: Need more recreational facilities Lithonia: Substandard park maintenance and lack of coordination around infrastructural provisions

# General Trends of Shared Use in DeKalb County

The structure for shared use agreements in DeKalb County revolves primarily around the notion of case-by-case basis Facilities Use agreements. Based on interviews with the DCSD Operations and Planning division, these look a little different from shared use agreements primarily because they lack the long-term, relational component that exists in shared use agreements. Facilities use also

takes place through a centralized system in DCSD (as will be further described in the subsequent section). For the purposes of this study, DCSD's form of facilities use agreements will be used interchangeably with the concept of shared use agreements, but the structural makeup of the DCSD system and the differences between the two will be discussed in the recommendations for future implementation in DeKalb County.

The survey of principals and administrators in DeKalb County revealed that 36 out of 133 schools currently engage in some type of shared use activity. 39 schools did not respond to either the online or phone surveys. Of the 58 schools that do not engage in shared use, only eleven expressed a desire to implement this concept in the near future. Some of the reasons for not wanting to engage will be discussed at length below. Of the 36 schools that do engage in shared use, the primary types of shared use agreements were for the purposes of recreation and physical activity, which is reflective of the national trends evidenced previously.

A number of groups and organizations utilize multiple schools throughout the district. Organizations must initiate the agreement; the request cannot come from an individual, nor can it originate from within the school. Permission to allow for shared use of school facilities is ultimately granted by the principal.

The primary types of activities that organizations are currently engaged in through school facilities include:

- Sports (track, soccer, football, dance)
- Church services
- Summer camps
- Science, robotics, and chess clubs
- Girl Scouts and Boy Scouts
- Fraternities and sororities
- Language classes and refugee assistance
- Festivals

More recently, schools have opened up their facilities for political and community meetings. Only three or four schools currently enable this, according to the current manager of facilities use agreements in the DCSD. All uses of school facilities from outside organizations must take place outside of school hours. Most shared-use agreements involve activities that take place immediately after school, and most are currently within elementary schools. The survey of schools found that 28 of the 36 (77%) schools in DeKalb County currently engaged in shared use are elementary schools. The exact reason for this is unclear. It may be simply because of the fact that a majority of DCSD schools are elementary (about 64%). However, further exploration may be useful to determine if there are perhaps other factors linked to elementary schools that make them more amenable to shared-use than middle or high schools. The findings from such further exploration could help in better tailoring schools of all grade levels to shared-use amenability.

## Shared Use Implementation Process and Impediments in DeKalb County

The process, challenges, and impediments to shared use were ascertained through interviews with school administrators, the DeKalb County School District Operations and Planning division, and the Georgia Department of Education. The process of implementation is framed in this section by the challenges involved.

Through these interviews, the main factors that emerged as challenges to effectively implementing shared use included:

- Liability
- Maintenance and operations
- Policies
- Cost-sharing and fees
- Lack of initiation from cities

The first two challenges listed above are detailed in the literature review, and the specifics around these challenges did not emerge as particularly unique in DeKalb County. The last three, however, deserve elaboration and are discussed in greater length below.

#### **Policies**

DCSD's currently existing *Use of Facilities Application/Agreement* is a very thorough document that ensures protections related to insurance liabilities, specifies usage terms and fees, and conditions for approval (see Appendix C). As the system for shared use currently exists, this agreement seems to be the best solution to laying out the necessary terms involved. However, an overarching program carried out by municipalities through which organizations and schools could more informally enter into shared use would be much less cumbersome.

Any short-term agreements for the shared use of facilities are processed through a centralized system and managed by the Operations department of the DeKalb County School District (DCSD). DCSD board policy requires that all shared use agreements during the school year must be solely with non-profit or governmental entities. The only exception to this rule is that vacant, district-owned facilities can be leased to for-profit organizations. This policy certainly limits the options for shared use, particularly in light of cost sharing challenges, as described below.

Another significant policy impediment to shared use implementation is the Georgia Constitution, which mandates that school funds must be used solely for educational purposes. This means that schools cannot initiate shared use with outside entities because the offer for covering costs must come from outside of the school. Thus, school-community partnerships rely entirely on initiation from non-school entities. As discussed below, such initiation is currently lacking.

#### **Cost-sharing and Fees**

Cost-sharing and fees present significant complexities in implementing shared use, particularly considering the necessity for schools to limit their funds to education-specific purposes.

The central DCSD office, rather than individual schools, is responsible for paying facility fees. With a large district of 133 schools, the complex cost-sharing issues are only exacerbated by the magnitude of scale. Currently, DCSD lacks a mechanism by which to measure, invoice, and cover shared costs for utilities, wear-and-tear, and supervision. Even if a mechanism were to be in place, the centralized system makes it difficult to manage.

#### **Lack of Initiation from Cities**

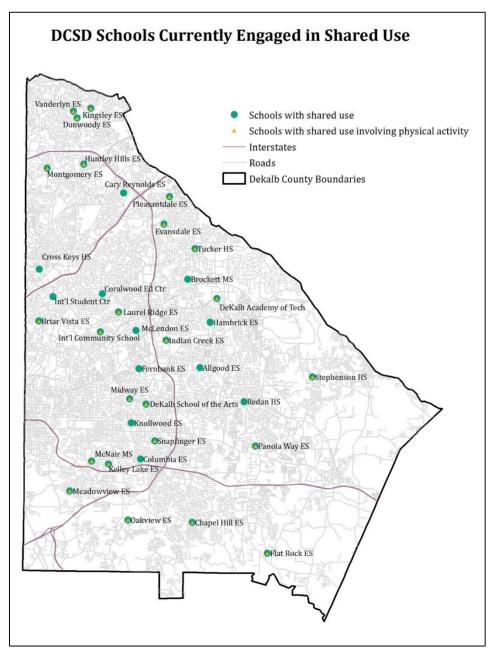
According to the DCSD Operations and Planning department, effective implementation of shared use is incumbent upon initiation from city government and planning departments. The DCSD expresses openness to such cooperation but has yet to receive such proposals. Often, local governments want complete control over the facilities, but this is not possible given current school policies. As a result, cities are often hesitant to initiate shared use. An equity cost-sharing model from cities is another necessary, but lacking, component for such coordination.

On the other hand, inter-organizational coordination is, in fact, already present to some degree between DCSD and various entities. DCSD currently sits on comprehensive planning committees for some DeKalb County cities, works closely with other organizations such as the Atlanta Regional Commission, and formerly had arrangements with the Parks Department for shared facilities use. Such coordination is welcome among DCSD but difficult to balance considering that the district comprises ten separate governance entities—the nine cities and the county. As a result, schools rely heavily on prompting from local governments.

# Spatial Allocation of Shared Use in DeKalb County

Results from the survey of school principals were imported into ArcGIS with an attribute table referencing each of the survey questions. Each feature was also mapped out. Figure 4 below illustrates the spatial allocation of schools in DeKalb County that engage in shared use of facilities. Additionally, it highlights the schools that are currently engaged in a type of shared use that involves physical activity. This includes all schools that share use of facilities with a YMCA, recreation facility, Parks and Recreation Department, or local group that runs sports clubs or summer camps.

Figure 4.

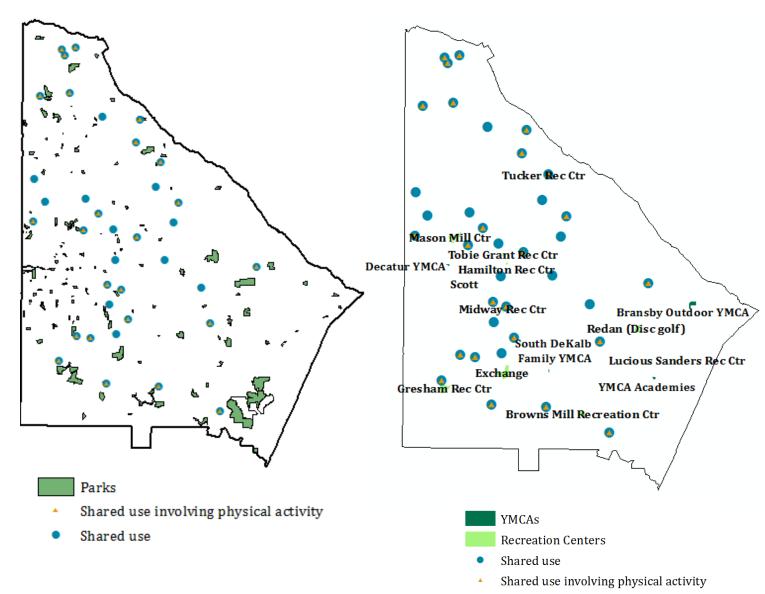


As described in the Methodology, the locations were also juxtaposed with various community and public facilities in order to determine what, if any, spatial relationships exist between the schools with shared use agreements and proximity to facilities.

Figures 5 and 6 illustrate the spatial allocation of schools in conjunction with the spatial allocation of a) parks and b) recreational facilities and YMCAs. These amenity types were chosen based on the description of DeKalb County infrastructural/ recreational needs as denoted in the community assessments (Community Planning Needs section).

**Figure 5.** Schools that currently engage in shared use and DeKalb County parks

**Figure 6.** Schools that currently engage in shared use and DeKalb County Recreation Centers and YMCAs



## Data Analysis

#### **Determining Correlations in Proximity**

Using SPSS Statistical analysis, dummy variables were created to denote the existence of shared use in schools and to denote the existence of shared use involving physical activity in schools. Distances from the aforementioned variables were taken from GIS analyses and measured as interval values. Analyses of bivariate correlation were then run between:

- 1. The existence of shared use and their relative distance to the amenities.
- 2. The existence of shared use *involving physical activity* in schools and their relative distance to the amenities.

No significant relationship was found between schools with shared use and park distance, YMCA distance, or Recreation Center distance. Similarly, no significant relationship was found between schools with shared use involving physical activity and park distance or Recreation Center distance. Correlation between schools with shared use involving physical activity and YMCA distance, however, was found to be significant at the 0.05 level (see Table 1). Surprisingly, the relationship (albeit weak) was a positive one, meaning that as YMCA distance increased, so too did the presence in schools of shared use agreements involving physical activity.

Table 1

Table 1				
Correlations				
		Schools with Shared Use involving	Distance of Schools to	
		Physical Activity	YMCAs	
Schools with	Pearson	1	.176*	
Shared Use	Correlation	1	.170	
involving	Sig. (2-tailed)		.046	
Phys. Activity	N	129	129	
Distance of	Pearson	17/*	1	
Schools to	Correlation	.176*	1	
YMCAs	Sig. (2-tailed)	.046		
	N	129	133	
* Correlation is significant at the 0.05 level (2-tailed).				

#### **Determining Correlations in Performance**

Again, dummy variables for shared use and shared use involving physical activity were used along with the interval values of academic and fitness performance in schools. Analyses of bivariate correlation were then run between:

- 1. The existence of shared use and school performance, both in terms of academics (CCRPI) and in terms of fitness levels (fitnessgram).
- 2. The existence of shared use *involving physical activity* in schools and school performance, both in terms of academics and in terms of fitness levels.

No significant relationship was found between high CCRPI index and schools with shared use or schools with shared use involving physical activity. Similarly, no significant relationship was found between high percentages of students in the HFZ (Healthy Fitness Zone) and schools with shared use or schools with shared use involving physical activity.

However, further examination eliminated schools that did not have data on fitness assessments. After elimination of these schools, significant positive relationships (albeit relatively weak) were found at the .05 level between average (male and female) body composition and schools with both shared use and schools with shared use involving physical activity (see Table 2 and 3). This means that greater percentages of student populations with healthy body composition were correlated with the presence of schools with shared use and shared use involving physical activity.

Table 2.

Table 2.				
Correlations				
		Schools with Shared Use involving Physical Activity	Body Composition (male and female students)	
Schools with Shared Use involving	Pearson Correlation	1	.221*	
Physical Activity	Sig. (2-tailed)		.012	
Body Composition (male and female	Pearson Correlation	.221*	1	
students)	Sig. (2-tailed)	.012		
* Correlation is significant at the 0.05 level (2-tailed).				

Table 3.

Tubic 5.					
Correlations					
		Body Composition (male and female students)	Schools with Shared Use		
Body Composition (male and female	Pearson Correlation	1	.207*		
students)	Sig. (2-tailed)		.049		
Schools with Shared Use	Pearson Correlation	.207*	1		
	Sig. (2-tailed)	.049			
* Correlation is significant at the 0.05 level (2-tailed).					

Although less substantial, significant positive relationships were also found at the .10 level between schools with shared use involving physical activity and average (both male and female) aerobic capacity (Table 4). This means that greater percentages of student populations with healthy aerobic capacity were correlated with the presence of shared use involving physical activity. No significance was found in the relationship between the existence of shared use in schools and higher average aerobic fitness levels.

Table 4.

14010 11				
Correlations				
		Schools with Shared Use involving Physical Activity	Aerobic Capacity (male and female students)	
Schools with Shared Use involving	Pearson Correlation	1	.169	
Physical Activity	Sig. (2-tailed)		.058	
Aerobic Capacity (male and female	Pearson Correlation	.169	1	
students)	Sig. (2-tailed)	.058		

# **Discussion and Recommendations**

Based on findings from this study, in conjunction with findings from existing literature, this discussion will focus on the following four insights and recommendations for DeKalb County. Each of these discussion points is focused primarily on aiding local governments and planning departments in employing shared use as an important strategy for making resources more readily available to communities.

These points are then followed by a narrative of two case study exemplars in DeKalb County as well as a description of a resource that might be helpful for schools and communities in this study area.

1. Changing the organizational structure of DeKalb County's facilities use agreements so that they align more closely with the notion of long-term, ongoing relationships rather than on case-by-case basis agreements will allow for greater flexibility and a wider scope of implementation.

Although a step in the right direction, DCSD's current *Use of Facilities Application/Agreement* is, in fact, a source of many of the current challenges to efficient shared use implementation. By instead initiating ongoing partnerships between organizations and schools, DeKalb County municipalities can help to eliminate the difficulties for both sides involved in carrying out shared use agreements. The interactive resource outlined in the next section would also facilitate efficient application of this strategy.

Ensuring that initiation for shared use implementation comes from the city and local authorities will also enhance the viability of shared use implementation. Moreover, planning departments should incorporate shared use agreements into community planning documents.

Incorporating shared use strategies into community planning documents and outlining specific policies to facilitate it could help overcome many of the currently existing impediments to its implementation in DeKalb County schools. The current mechanism by which costs for shared use agreements are measured, invoiced, and covered lacks capacity to sufficiently manage shared

use. This mechanism should, instead, be transferred to city departments, which would be in charge of both initiation and management of shared use. The Maryland Department of Planning, for instance, created an excellent model of the incorporation of shared use in comprehensive planning. The 2008 *Managing Maryland's Growth, Models and Guidelines* addresses both public school planning and community planning in its guidelines for smart growth. The plan discusses the cost benefits of shared use, optimal school siting guidelines for the sake of benefiting the whole communities, and case studies of effective implementation throughout the region (Maryland Dept. of Planning 2008).

Local authorities should also focus their efforts on introducing shared use in middle schools and high schools. An overwhelming majority of DCSD schools currently engaged in shared use are elementary schools. However, middle and high schools in DeKalb County also have a lot to offer in terms of facilities and resources but are currently being overlooked. Cities and local authorities should promote shared use among middle and high schools in order to maximize the full potential scope of shared use implementation.

3. Focusing on supporting shared use agreements between schools and communities for the express purpose of promoting physical activity will help to increase healthy lifestyles within the community.

As evidenced, shared use is available to all schools in DeKalb County, but a significant number of schools are not currently engaging in it. Also worth mentioning are the current health challenges and physical activity deficits among youth and communities at large in DeKalb County. As found in this study, correlations exist between shared use, particularly those involving physical activity, and greater fitness levels. Although these relationships are relatively weak and cannot be proven from this study to be causative, they are still noteworthy, particularly in light of the literature that supports these findings.

Ultimately, shared use agreements are not being utilized to the extent that they could in order to meet current challenges in DeKalb County communities, namely infrastructural deficits and population health needs. Moreover, this study's analyses demonstrate that there is little correlation between the presence of shared use in schools and distance to amenities. If anything, *greater distance* from certain amenities, such as YMCAs, is actually correlated with the presence of shared use in schools. This finding demonstrates that distance to amenities should not be an overwhelming barrier to the implementation of shared use involving physical activity.

4. Rethinking current DCSD board policy and permitting for-profit organizations to engage in shared use would help to meet the need of limited funding for maintenance and operations costs.

The DCSD board policy requiring that all shared use agreements during the school year must be solely with non-profit or governmental entities narrows the potential scope of possibilities for shared use. Broadening the scope of entities allowed to enter into shared use agreements would not only open up greater opportunities for mutually beneficial relationships between schools and

communities but also potentially help to solve some of the issues related to lacking funds on the part of the school district. For-profit organizations would likely have greater capacity to cover some of the operations and maintenance costs that currently present obstacles to the effective implementation of shared use.

#### Case Studies<sup>4</sup>

The following narratives are based on interviews of administrators and teachers in schools in two DeKalb County schools. These schools are currently engaged in shared use agreements through long-term relationships with local organizations. Implementation of shared use has proven invaluable for both the schools and their surrounding communities.

#### **International Community School- Decatur Family YMCA Partnership**

The International Community School (ICS), a charter school in Clarkston, Georgia, engages in partnerships with the community through both formal and informal shared use agreements. ICS has established shared-use agreement with local churches in the past and is currently engaged in a shared-use agreement with the local YMCA for both basketball and soccer programs. The school was established in 2002. Without its own permanent space, the school met for the first ten years in Avondale Pattillo United Methodist Church. When the school expanded a few years later, it entered into a second shared use agreement with another church in Stone Mountain. In 2012, ICS secured its own premises at the former Medlock Elementary School site (Whitelegg 2014).

ICS currently operates various shared use programs that help to promote physical activity and improve health. The YMCA serves as the sub-contractor and manages insurance responsibilities and utilizes the ICS soccer field for its own league practices. In turn, ICS sets the fees, and the students play in the YMCA's leagues. Similarly, the YMCA also ran a basketball program at ICS through a formal arrangement that entailed financial reimbursement from the school. ICS also implements its Kilometer Kids running program through the Atlanta Track Club. ICS also partners with the Decatur/DeKalb YMCA to implement its soccer program (Whitelegg 2014).

Shared use has presented some logistical challenges for ICS, particularly because of the unique demographics of the school and community populations. At least one half of the students receive the free lunch program, and the school mandates integration of the Clarkston refugee population within the student body. The low income and refugee makeup of many ICS families presents a number of for after school programs, primarily because of communication barriers and transportation difficulties that result from an overwhelming lack of vehicle ownership for households in the community. These challenges are further exacerbated by the compartmentalized structure of the YMCA organization and inherent communication difficulties between entities. In spite of these challenges, however, the school's teachers and administration claim that the benefits have been immeasurable (Miranda 2014).

<sup>&</sup>lt;sup>4</sup> These case studies can also be found in *School Siting and Design Study*, compiled by the Georgia Tech School of City & Regional Planning School Siting Studio. These case studies were researched and written by the same author for both products.

Partnership with the YMCA has facilitated a very strong school-community affiliation, encouraging further coordination through summer camps. In fact, as a result of these programs, two ICS students have gone on to represent the U.S. in soccer at the national level. Furthermore, the partnership has helped raise the school profile; helped the kids in their academic performance; and increased the number of concerned adults and assisted in the triangulation of their involvement in the students' lives. It also has a greater community impact and opens the students open to a wider world, particularly when they have the opportunity to participate in games outside of the city of Clarkston.

The bureaucracy of these programs is too onerous for the school's current capacity, so the bureaucratic and programmatic assistance from the YMCA, especially considering its largely shared vision with ICS, has greatly benefited the school. As Coach Drew Whitelegg of ICS stated, "We wouldn't be able to do it without the Y" (Whitelegg 2014).

Because past and present co-location and shared use have proven so beneficial for the school, ICS is in the process of discussing further community partnerships. The students currently have access to both Medlock Park and a nearby nature preserve. ICS has begun preliminary conversations to establish partnerships with these green spaces. ICS is also hoping to open its facilities over the weekends for community gatherings and to launch continuing education programs in the evenings for adults to acquire skills in such areas as jewelry-making, computers, and painting. The major barriers it currently faces in the implementation of such programs are, again, transportation issues and the idea of introducing the somewhat foreign concept of school use for other purposes to ICS's largely refugee population. Formalization of the programs, specifically in terms of putting into place insurance and liability, is another challenge that school administrators will have to overcome (Whitelegg 2014, Miranda 2014).

#### **Indian Creek Elementary School-YMCA Partnership**

Indian Creek Elementary School provides another excellent example of a public elementary school engaged in shared use. The school established a shared-use agreement with the local YMCA, outlining the shared use of the school soccer field. According to the contract, the YMCA is entitled to use of the field for evening and weekend games, and the school has full use of the field during school hours. Any other community groups or organizations that desire to use the field can simply coordinate after-school and weekend events through the YMCA and do not need to check with the school administration (Nykamp 2014).

On the whole, this partnership has been nothing but beneficial. A grant intended to promote healthy living enabled shared use of the soccer field, and it has been incredibly beneficial to both the school and the community in providing a large, open green space for recreation and physical activity. Given that Indian Creek is also surrounded by apartments on all sides, the field and the community use of the space acts as a central gathering place for everyone in the community.

Adam Nykamp, Community Engagement Liaison and PTA President, can only recount one instance in which the shared use resulted in a scheduling conflict. This occurred when the school had to reschedule its spring festival due to rain, and the new date for the festival was miscommunicated to

YMCA staff who had coincidentally scheduled soccer games at the same time. The school and YMCA easily resolved the issue by dedicating half of the field to the festival and the other half to the games (Nykamp 2014).

Liability and insurance are not, in fact, issues in this partnership. Both the YMCA and the school have their own terms of liability and insurance, and the clear and distinct scheduling of each entity's use of the field allows for the easy application of each. According to Nykamp, "anything that allows school grounds to be used by outside organizations and individuals is great for both the school and the community" (Nykamp 2014).

These two case studies demonstrate the benefits of shared use and the process of overcoming necessary barriers. Both schools have faced challenges and impediments but are persistent in their resolve to maintain shared use relationships. Implementation of the aforementioned structural changes, as well as creation of the resource described in the subsequent section, has the potential to mitigate and even eliminate some of these challenges and even increase some of the already-existing benefits for these schools and their surrounding communities.

## Outlining the Need for a Shared Use Resource in DeKalb County

DeKalb County would greatly benefit from an online and readily-available resource for schools and communities to share their needs and to respond with innovative, practical solutions.

Although several national efforts have already focused on making resources available to schools, this resource would be primarily directed to planning departments. This would serve the primary purpose of guiding local city governments in determining the process of initiating and implementing shared use agreements with schools in DeKalb County.

Secondarily, the resource will be useful for the DCSD central office, local schools, and community leaders as a central server for discussing infrastructural needs and opportunities.

More specifically, the resource will include the following elements:

- An interactive map of schools currently engaged in shared use of facilities, as well as those seeking to engage in shared use. This will include an interactive version of the maps from figures 4-6 but will need to be expanded to include data for 100% of schools in DCSD. See Appendix A for an example from the Tennessee Recreation and Parks Association Joint Facility Use Finder.
- A section particularly for city governance and planning entities that provides tools and strategies for assessing need and finding innovative solutions through shared use.
- A discussion resource made available to the public to provide suggestions about needs and opportunities relating to shared use.

- Links to existing shared use resources and tools provided by other organizations and websites (see Appendix B). Included in this list, among others, will be the following:
  - o Policy and legislative resources and tools from ChangeLab Solutions
  - o Location-specific case studies from Jointuse.org
  - Design and rating toolkit from LEED for Schools
  - Literature, presentations, and webinars from Robert Wood Johnson Foundation's Active Living Research for Schools
  - Policy and implementation tools and resources from Center for Cities and Schools, UC Berkeley Joint Use Schools Initiative
  - Best Practices from the Safe Routes to Schools National Partnership

Ideally, city authorities and community members will be able to access this resource to search 1) spatial information about current shared use activities throughout schools in the district, 2) current facilities availability and accessibility in the schools, and 3) details about willingness on the part of administrators to enter into partnerships. This resource has the potential to greatly streamline the process of matching needs with solutions and the process of establishing partnerships with the potential to benefit schools and communities across the county.

## Conclusion

This study has been met with a few limitations that point to the need for further research and examination of the crucial topic at hand. The first of these limitations comes in the form of data availability. Although an overall survey response rate of 71% was achieved, a response rate of 100% would have not only led to more robust analyses and conclusive findings but also helped in the creation of a more readily-available shared use resource. Missing data from the Fitnessgram assessment also hindered the ability to provide complete data analyses. This study was also limited in terms of its lack of representation of DeKalb County municipal planners. Attempts to contact various planners throughout the course of the study were met with unresponsiveness. A planner perspective could have offered additional insight into this study and could be pursued more intently in follow-up studies to add this important component. Finally, another manifestation of time and resource limitations entails the incomplete establishment of the aforementioned shared use resource. With more time and resource availability, such a resource could have actually been created as a result of this study rather than merely laid out as a framework for future development.

Overall, however, this study has pointed to the fact that more intentional and focused leveraging of school resources in DeKalb County has the potential to improve efficiency in the use of public and private spaces, solve infrastructural deficits that currently exist in the district's communities, and improve health and physical activity levels. More specifically, initiation from local municipalities and planners, concerted efforts towards promoting shared use agreements for physical activity, changes to board policy, and restructuring of the currently existing case-by-case basis framework for shared use would greatly benefit DeKalb County's schools and communities. While some of the findings and recommendations made in this study are most practically applicable to DeKalb County, Georgia, they

also bear significance for areas beyond the DeKalb school district. Wider application has the potential to increase planning efficiency and improve health on a state- and nationwide level.

# **Bibliography**

- Agron, J. 2009. 38th annual maintenance and operations cost study: schools. *American Schools and University* 81(9):20-23.
- Baker, T. 2008. Liability risks for after-hours use of public school property to reduce obesity: a fifty-state survey. NPLAN: National Policy and Legal Analysis Network to Prevent Childhood Obesity.
- Bingler, S. Quinn, L. & Sullivan, K. 2003. *Schools as centers of community: a citizen's guide for planning and design*, 2<sup>nd</sup> ed. Washington, DC: National Clearinghouse for Educational Facilities.
- Botchwey, N. Trowbridge, M. & Fisher, T. 2014. Green health: urban planning and the development of healthy and sustainable neighborhoods and schools. *Journal of Planning Education and Research*, 34(2):112. doi: 10.1177/0739456X14531830.
- CDC (Centers for Disease Control and Prevention). 2014. Health Data Interactive. *Centers for Disease Control and Prevention*. Available at: http://www.cdc.gov/nchs/hdi.htm
- CDC (Centers for Disease Control and Prevention) and US Dept. of Health and Human Services. 2013. Available at: http://www.cdc.gov/healthyyouth/shpps/2012/pdf/shppsresults\_2012.pdf
- Chriqui, J. Schermbeck, R. Slater, S. Schneider, L. Barker, D. & Chaloupka, F. Joint use agreements: creating opportunities for physical activity—a BTG Research Brief. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago. Available at: http://www.bridgingthegapresearch.org/\_asset/g19776/btg\_joint\_use\_agreements-2-10-12.pdf
- Chrzanowski, D. Rans, S. & Thompson, R. 2010. Building mutually-beneficial relationships between schools and communities: the role of a connector. *The Asset-Based Community Development Institute: School of Education and Social Policy, Northwestern University.* Available at: http://www.abcdinstitute.org/publications/downloadable/
- Deal, N. (Governor) & Williams, M. (Commissioner). 2014. SCORP 2014-2016. Available at: http://gastateparks.org/parks/scorp/2014-2016/img/SCORP-1416.pdf
- DeKalb County. 2015. Recreation center locations. *DeKalb County.* Available at: http://www.co.dekalb.ga.us/parks/pr-recreation-centers.html
- DeKalb County Board of Health. 2011. Communities Putting Prevention to Work: Behavioral risk factor surveillance system report. *DeKalb County Board of Health* and *Picture DeKalb Healthy*. Available at: www.dekalbhealth.net
- DeKalb County Board of Health. 2010. Youth risk behavior survey. *DeKalb County School District* and *DeKalb County Board of Health*. Available at: www.dekalbhealth.net

- Ewing, R. & Greene, W. 2003. Travel and environmental implications of school siting. EPA 231-R-03-004. Washington, DC: USA. EPA. http://www.epa.gov/smartgrowth/pdf/school\_travel.pdf
- Filardo, M. Vincent, J. 2014. A policy framework for joint use: enabling and supporting community use of K-12 public school facilities. Available at: http://www.bestfacilities.org/best-home/docuploads/pub/248\_PolicyFrameworkforJointUse2014.pdf
- Filardo, M. Vincent, J. Allen, M. Franklin, J. 2010. Joint use of public schools: a framework for a new social contract. *Center for Cities and Schools*. Available at: http://21csf.org/csf-home/publications/ConceptPaperJointUseofPublicSchools.pdf
- Forsyth, A.J., Oakes, M., Schmitz, H. & Hearst, M. 2007. Does residential density increase walking and other physical activity? *Urban Studies* 44(4): 679-97.
- GA DOE (Georgia Department of Education). 2014. College and career ready performance index. Available at: http://ccrpi.gadoe.org/2014/
- GA DOE (Georgia Department of Education). 2014. [2]. Health and physical education. Available at: http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Curriculum-and-Instruction/Pages/Health-and-Physical-Education.aspx
- GCSA (Georgia Charter Schools Association), Colorado League of Charter Schools, & National Alliance for Public Charter Schools. 2011. Shortchanged charters: how funding disparities hurt Georgia's charter schools. *Georgia Charter Schools Association*. Available at: http://www.gacharters.org/press-releases/charter-schools-in-georgia-hindered-by-inadequate-facilities-with-high-costs/
- Healthy People 2020. 2015. Leading Health Indicators. *U.S. Department of Health and Human Services*. Available at: https://www.healthypeople.gov/
- Howard, K. Bocarro, J. & Kanters, M. 2013. Strategies for creating successful joint use agreements: a case study. *Journal of Parks and Recreation Administration*, 31(1):98-107
- Jones, Vernon. 2007. DeKalb county comprehensive plan 2005-2025. *DeKalb County Strategic Planning Division Department of Planning and Development*. Available at: https://www.dca.ga.gov/largefiles/OPQG/2005/DeKalbCo.CAg.pdf
- Kanters, M. Bocarro, J. Filardo, M. Edwards, M., McKenzie, T. & Floyd, M. Shared use of school facilities with community organizations and afterschool physical activity program participation: a cost-benefit assessment. Journal of School Health 84(5):302-309.
- Lawhon, L. 2009. The neighborhood unit: physical design or physical determinism?" *Journal of Planning History*. http://jph.sagepub.com/content/8/2/111
- Maryland Dept. of Planning. 2008. Managing Maryland's growth, models and guidelines: smart growth, community planning and public school construction. *Maryland Department of Planning*. Available at: http://www.mdp.state.md.us/
- Mathews, E. McGlamery, J. & Baker, T. 2009. Liability risks for after-hours use of public school

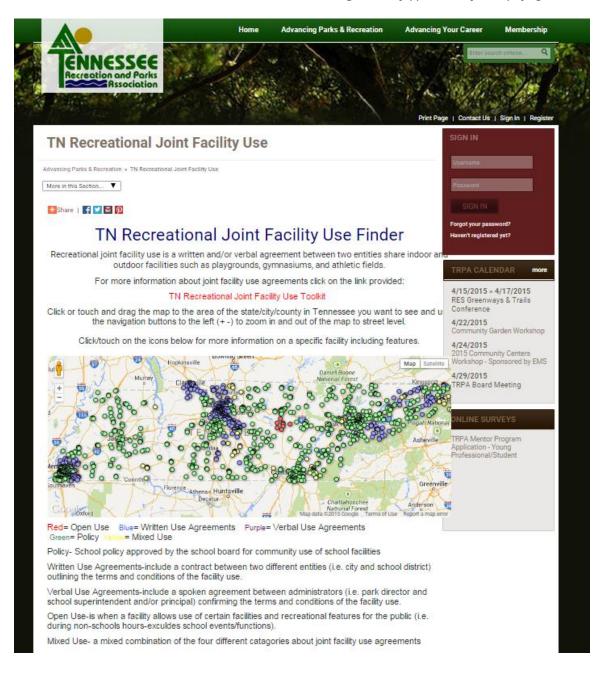
- property to reduce obesity: Georgia. *NPLAN: National policy & legal analysis network to prevent childhood obesity.* Available at: http://law.justia.com/codes/georgia/2010/title-36/provisions/chapter-64/36-64-4/
- McDonald, N. 2010. School siting: contested visions of the community school. Journal of the American Planning Association, 76(2).
- Miles, R. Adelaja, A. Wyckoff, M. 2011. School siting and healthy communities: why where we invest in school facilities matters. Michigan State University Press: USA. Print.
- Miranda, Edgar. Interview by Kirsten Cook. Phone. October 24, 2014.
- NCES. 2011. Number of public school districts and public and private elementary and secondary schools. *National Center for Education Statistics*. Available at: http://nces.ed.gov/programs/digest/d12/tables/dt12\_098.asp
- Nykamp, Adam. Interview by Kirsten Cook. Phone. November 11, 2014.
- Rao, A. & Ross, CL. 2014. Health impact assessments and healthy schools. *Journal of Planning Education and Research* 34(2):153-168.
- Romeo, Jim. 2004. The ABCs of mixed-use schools. American Planning Association.
- RWJF (Robert Wood Johnson Foundation). 2012. Promoting physical activity through the shared use of school and community recreational resources. *Active Living Research* Brief, April 2012.
- Salvesen, D. & Hervey, P. 2003. *Good schools, good neighborhoods: the impacts of state and local school board policies on the design and location of schools in North Carolina*. Chapel Hill, NC: Center for Urban and Regional Studies, University of North Carolina at Chapel Hill.
- Spengler, J. O'Connaughton, D. & Carroll, M. 2011. Addressing challenges to the shared use of school recreational facilities. *Journal of Physical Education, Recreation & Dance,* 82(9): 28.
- Troost, J. Rafferty, A. Luo, Z. & Reeves, M. Temporal and regional trends in the prevalence of healthy lifestyle characteristics: United States, 1994-2007. American Journal of Public Health 102(7):1392-1398.
- Trowbridge, M. Huang, T. Sorenson, D. Brittin, J. & Frerichs, L. 2014. Moving schools forward: a design recipe for health. *American Institute of Architects.* Available at: www.aia.org/DesignHealth
- TRPA (Tennessee Recreation & Parks Dept.) 2013. Tennessee recreational joint facility use agreements. *Tennessee Recreation and Parks Association*. Available at: http://www.trpa.net/?page=57
- Trust for America's Health & Robert Wood Johnson Foundation. 2014. State school-based physical activity and health-screening laws. *The State of Obesity: Better Policies for a Healthier America*. Available at: http://stateofobesity.org/state-physical-activity-laws/

- USGBC (US Green Building Council). 2015. LEEDv4 Joint use of facilities. *LEED Credit Library*. Available at: http://www.usgbc.org/credits/schools-existing-buildings/v4/ss121
- Vincent, J. 2014. Joint use of public schools: a framework for promoting healthy communities. *Journal of Planning Education and Research*, 34:153. Doi: 10.1177/0739456X13513615
- Vincent, J. 2010. Partnerships for joint use: expanding the use of public school infrastructure to benefit students and communities. *Center for Cities and Schools*. Available at: http://citiesandschools.berkeley.edu/reports/Partnerships\_JU\_Aug2010.pdf
- Watkins, T. Woolf, J. Patton, J. Miley, L. & King, D. 2006. 2030 Comprehensive plan: community assessment. *Macon-Bibb County Planning and Zoning Commission*. Available at: http://www.maconbibbpz.org/artman0/uploads/1/CP2030\_1.pdf
- Whitelegg, Drew. 2014. Interview by Kirsten Cook. Phone. October 22, 2014.
- Winig, B. Ackeman, A. Gladstone, E. 2013. This land is our land: a primer on public land ownership and opportunities for recreational access. *Change Lab Solutions*. Available at: http://changelabsolutions.org/publications/public-land-primer
- Wyckoff, M. Adelaja, A. Gibson, M. 2011. The implications of school location change for healthy communities in a slow-growth state: a case study in Michigan. In Miles, R. Adelaja, A. Wyckoff, M. 2011. *School siting and healthy communities: why where we invest in school facilities matters.* Michigan State University Press: USA. Print.
- Young, D. Spengler, J. Frost, N. Evenson, K. Vincent, J. & Whitsel, L. Promoting physical activity through the shared use of school recreational spaces: a policy statement from the American Heart Association. American Journal of Public Health 104(9):1583-1588

# Appendix A

The Tennessee Recreation and Parks Association (TRPA) has created an online Recreational Joint Facility Use Finder, which provides an excellent model for the resource needed in DeKalb County.

The stated objective of the resource is "to pursue Joint Use Agreements that provide communities with access to school playgrounds, park land, school classrooms, gyms, ball fields and community centers" (TRPA 2013). As shown in the image below, the Facility Use Finder provides interactive spatial data presenting the locations and specific features of joint facility use agreements in Tennessee. The resource can be found at the following url: <a href="http://www.trpa.net/?page=57">http://www.trpa.net/?page=57</a>



# Appendix B

## **Links to Existing Resources and Tools:**



http://changelabsolutions.org/childhood-obesity/schools



http://www.jointuse.org/



http://centerforgreenschools.org/leed-for-existing-schools.aspx



http://activelivingresearch.org/taxonomy/schools



http://citiesandschools.berkeley.edu/joint-use.html



http://saferoutespartnership.org/state/bestpractices/shareduse

# Appendix C

## DCSD Use of Facilities Application/Agreement below

(Document made available by DCSD Operations Division at: <a href="http://www.dekalb.k12.ga.us/operations/facilities-management">http://www.dekalb.k12.ga.us/operations/facilities-management</a>)



Requesting Organization:

# **Use of Facilities Application/Agreement**

501(c) (3) Yes\_\_\_\_\_ No\_\_\_\_

Representative of Organization:	Email Address:
Organization Address:	Phone No
County:	Requested Date(s) of Facility/School Use:
Requested Facility/School:	Purpose of Use
Requested Hours of Use	Area(s) of Facility Requested:
Expected No. of Participants	
*Verify that your organization has provided a certificate of insurance th KG-R (1).	at fully complies with the insurance requirements of Board Policy KG &
Organization's Representative's Initials	
THIS BOX TO BE COMPLETE  Principal/Administrator	ED BY SCHOOL PRINCIPAL/ADMINISTRATOR  Approval Signature
- Thropan anniocati	Approval Date
On-site DCSD Custodian(s) during requested date(s) and time(s)	Cell No
	Cell No
DCSD custodian(s) required to/able to work overtime (hours or additional v	vork) for requested event(s)? Yes NO
If yes, provide custodial employee's identification number	and current rate of pay
	and current rate of pay
Overtime payment calculation: Hours x (Hourly Rate of Pay + ½ Hourly Ra	te of Pay) x 2.65% =
Any special stipulations imposed on organization and/or its intended use or	f the facility or field?

\*Per Board Policy KG and KG-R(1), a certificate of insurance that meets the following requirements must be filed with the DCSD Department of Facilities Management prior to use at: 1780 Montreal Road, Tucker, Georgia, 30084 § Email: Gloria\_Johnson@dekalbschoolsga.org. § Fax: 678-676-1447

- -If applicable to the organization, Workers Compensation Insurance that meets the statutory limits;
- -Commercial General Liability Insurance or Public liability Insurance with minimum coverage limits of \$1,000,000 each occurrence/aggregate;
- -Liability insurance must cover property damage, personal injury (including medical expenses and wrongful death) and contractual liability;
- -Certificate must name DeKalb County Board of Education and DeKalb County School District as an ADDITIONAL INSURED (primary and non-contributory basis
- -DeKalb County Board of Education at (1701 Mountain Industrial Boulevard, Stone Mountain, Ga. 30083) must be listed as certificate holder;

Revised: 10/17/2014

The school district reserves the right to request additional insured policy endorsements from requesting organizations before granting final approval of any Facility Use Application/Agreement. FAXED CERTIFICATES AND POLICY ENDORSEMENTS WILL NOT BE ACCEPTED.

Requesting Organization	_ agrees to save,	defend and	indemnify the	DeKalb C	county
Board of Education, the DeKalb County School District and all of its officia	ıls, agents, and em	ployees from	and against an	y and all c	laims,
actions or causes of action, loss damage, injury, costs (including court co	sts and attorneys'	fees), charge	liability or expo	sure, incl	uding,
but not limited to, any loss resulting from or arising out of or in any way co	nnected with the u	ise of a school	l's facility and/	or ground:	S.

#### Organization's Representative's Initials

#### **USAGE TERMS:**

Monday-Friday (August-May): After school to 9:00 PM; Saturday & Sunday (August-May) 9:00 AM to 9:00 PM.

Monday-Sunday (June-July): 9:00 AM-9:00 PM All times are subject to school and personnel availability.

Kitchen space, kitchen equipment and playgrounds may not be used by any outside organization.

Fields used by sports organizations may only be used for practice (no games, tournaments, etc.).

Facility Use Agreements are limited to the time period of one semester/summer months. Additional requested dates require a new agreement.

DCSD custodial employee must be on site during use of any facility by an outside organization.

#### **PORTABLE TOILETS:**

A Facilities Use Agreement involving outside activities requires that the Requesting Organization acquire and maintain, at its cost, a sufficient number of portable toilets in all occupied areas, throughout the duration of the activity. Prior to the commencement of the activity, portable toilets must be placed on the site and maintained in a manner that minimizes disturbance to nearby residences, or other activities.

<u>Description</u>	Daily Fees per room/area/space	Amount Owed	Org. Rep. Initials
School Facilities: General Classroom	\$50.00 minimum for first three hours or less; \$20.00 per each additional hour or fraction thereof over three hours		
Cafeteria and Commons	\$150.00 minimum for first three hours or less; \$50.00 per each additional hour or fraction thereof over three hours		
Multi-Purpose Building (Detached Gymnasium)	\$75.00 minimum for first three hours or less; \$25.00 per each additional hour or fraction thereof over three hours		
Auditoriums and Gymnasiums	\$225.00 minimum for first three hours or less; \$75.00 per each additional hour or fraction thereof over three hours		
Outdoor Facilities (practice fields, tennis courts, parking lots, tracks)	\$120.00 minimum for first three hours or less; \$40.00 per hour or fraction thereof above three hours		
Special Set up Requirements	\$250.00 additional per day		
Use of Public Address System or on-site sound equipment (if available and approved)	\$200.00 additional per day		
Fernbank Science Center: Planetarium/Exhibit Hall	\$500.00 minimum first three hours or less; \$125.00 per each additional hour or fraction thereof over three hours		
Garden (Outdoor Space)	\$250.00 minimum first three hours or less; \$85.00 per each additional hour or fraction thereof over three hours		
Classroom	\$50.00 minimum first three hours or less; \$20.00 per each additional hour or fraction thereof over three hours		

Revised: 10/17/2014

Additional Uses: Filming Prep - Day(s) prior to event Clean-up - Day(s) after event	\$1,000.00 Flat rate per day \$500.00 Flat rate per day \$500.00 Flat rate per day			
Unoccupied or Decommissioned Facilities	Please contact office to disc	cuss rate options		
		Total Usage Fe		
	Add	ditional Terms and Conditio	ons for Use	
Payments for use and to cover any orders <b>payable to DeKalb County</b> insurance documents by the DCSD Principals/Administrators and the re	<b>School District.</b> Payments r Department of Facilities for fir	must be received with the pronal approval at least four (4)	perly completed use a weeks in advance of	greement and necessary the event/program start date.
Organizations utilizing school faciliti provide services within DeKalb Cou District Department of Public Safety	nty School District School Fac			
The sale, use or possession of alcolon school property by any group, no Superintendent is secured. All state breach of this agreement and all rigible worked by a DCSD custodial emin anticipation of the use and will no reason, including weather. Upon fir with the Georgia Secretary of State The Requesting Organization acknowledge of the payment, indemnity and insurant	or any alterations made to exist and local laws, statutes, ordinates to continued use of the fact ployee for an event or events to reduced or returned upon all approval, payments are finate.  The event of the fact of the f	sting school facilities, except values and codes shall be staility will be revoked immediated may not be waived. Paymer a cancellation of a scheduled all and non-refundable. Requisions for use of DCSD facilities to them. Additionally, the References and code and c	when written permission trictly observed. Failure tely. Labor charges to that made for use and to event or events by an ob- uesting Organization	n from the Office of the e to do so shall constitute a cover any expected overtime to o cover labor charges are made outside organization due to any must be a registered entity d in this agreement and in Board
Organization's Representative (Prin	t Name)	Title		Phone #
Representative's Signature		Date		Email Address
SIGNATURE OF THE DEPARTME FACILITIES.	NT OF PLANT SERVICES IS	NECESSARY FOR FINAL A	APPROVAL FOR ANY	REQUESTED USE OF DCSD
Reviewed by:				
Director of Business & Transport	ation Services	Date		
Approved by:				
Chief Operations Officer		Date		

Revised: 10/17/2014