Funding Strategies for Philadelphia Green Schools

Opportunities from top-down to bottom-up

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INTRODUCTION

As envisioned, a green schools program that includes greened schoolyards, environmental and place-based curricula, and community partnerships has immense potential to transform Philadelphia's schools and the neighborhoods in which they operate. Once the case is made, however, one of the first questions is that of financing this transformation. This white paper sets forth a variety of funding strategies that apply to the implementation of a Philadelphia Green Schools program. Examples of successful strategies from other places are included where appropriate; these are often concerning just one element of a comprehensive green schools program. Since such a program does not exist yet exactly as envisioned, no one precedent is fully replicable, but there are still lessons to be learned from other cities and school districts.

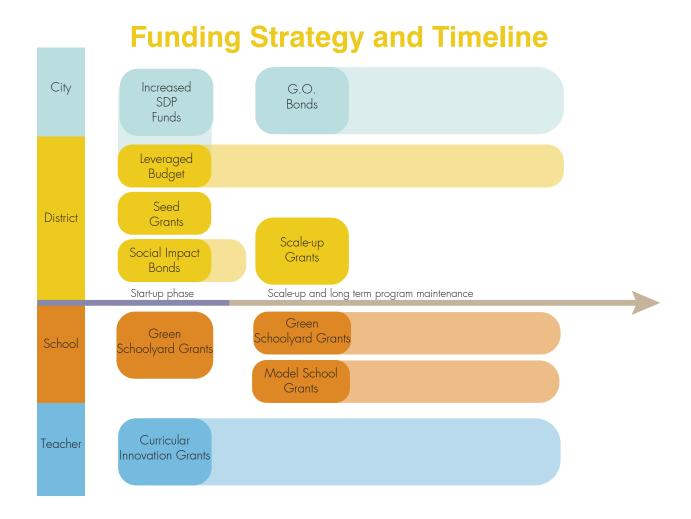
This set of recommendations is organized around four key themes:

- 1. Public vs. private sources of money
- 2. Short, medium and long-term
- 3. Funding for one element of the program vs. the program as a whole
- 4. Opportunities at the city, school district, school/organization, and educator scales

This last point represents the organizing principle for the set of strategies that follows. There are top-down strategies that can be carried out by the City of Philadelphia or the School District; in addition, there are a number of "bottom-up" tactics that an individual principal, non-profit organization, or educator can pursue. The rationale for including funding opportunities for an individual school, neighborhood organization, or school teacher is to allow for greater creativity and flexibility at the classroom- and school-level. Most importantly, such investments empower individual educators to be a part of continued innovation throughout the long-term life of the green schools program. The result is a more comprehensive look at how a green schools program could be implemented and sustained than would be achieved by only looking from a policy perspective or a grassroots one. Many of the strategies laid out are also recommended for specific phases of the program over time: pilot, scale-up, and long-term.

Another important aspect of a sustainable funding strategy for a green schools program is the utilization of both public and private resources at all stages of the program. Despite the School District of Philadelphia's budgetary issues, it is important that they invest in this program from the beginning for a number of reasons. Firstly, it acts as a show of support and confidence in the potential of this program to make a large difference in the city's schools and neighborhoods. In addition, the presence of public funds can act as a point of leverage to convince private entities to match them with their own contributions.

Because the green schools paradigm is comprised of an interrelated set of physical and programmatic elements, some of the funding strategies discussed may apply to one aspect or another, while others may apply to the entire program as a whole.



CITY-LEVEL STRATEGIES

Budget Prioritization

The first step the city can take towards implementing a comprehensive green schools program is to simply give the school district more money to work with. The School District of Philadelphia (SDP) receives about \$12,500 in revenue per pupil (2013-14 school year), which is far less than many urban school districts across the country, including Boston, Milwaukee, Baltimore, and Chicago. SDP simply needs more funds to work with. During the 2013-14 school year, 42.3% of the school district's budget came from local sources. This falls below the local contribution of many other U.S. cities including New York, Chicago, and Boston. There is room for the city to provide a

larger share of the district's overall budget. In addition, the city's reliance on property taxes to fund the schools (63.5% of local school funding comes from local property taxes) is a relatively weak strategy because Philadelphia generally has lower property values than many cities and surrounding towns. There is room to provide funds from more impactful revenue streams. State school funding issues notwithstanding, the city's first move should be to prioritize school funding in its own budget.

General Obligation Bonds for Schoolyard Greening

Municipalities are enabled to issue general obligation bonds, which are secured by a state or local government's ability to use legally available resources, including tax revenues, to repay bond holders. G.O. bonds are a tool that every city uses, often to pay for capital projects and other improvements. This well-known financial strategy could be applied to the physical aspects of the program— the enhancement of SDP schoolyards with green storm water infrastructure, environmental learning tools, and play equipment. The City of Denver used G.O bonds to finance the physical transformation of every schoolyard in the city, as part of their Learning Landscapes program. After a successful pilot phase ensured momentum, voters approved a \$39 million bond in 2003 for the scaling up of the project. In 2008, also with voter approval, a \$29 million bond was issued for the remaining schoolyards. These measures financed a total of 61 schoolyards. The repayment of these bonds were supported by an "open space" sales tax increment. This example speaks to the value of city-issued bonds to bring a popular program to scale. Philadelphia could consider a similar strategy of dedicating a particular sales or other tax increment to the repayment of the green schoolyard bonds, or more generally rely on the assumption of increased property values and economic activity in neighborhoods surrounding improved schoolyards.

SCHOOL DISTRICT STRATEGIES

Leveraging District Assets

Even if the School District of Philadelphia were to receive more local funding in the near future, there still exists an imperative to treat every dollar of the SDP budget as a point of leverage for grant and loan opportunities. This entrepreneurial mindset will signal other parties that the school district is smartly utilizing every asset it has. They are starting to speak in these terms: in October, Mayor Nutter and District Superintendent William Hite announced that \$5 million in district capital funds will be leveraged with private funding from the Trust for Public Land and the Philadelphia Water Department for the greening of 20 schoolyards. They estimate their \$5 million investment will bring about \$20 million in capital improvements. ³

There are also some existing programs and budget items that could be reconfigured or reallocated to aid the implementation of a Philadelphia Green Schools program. The forthcoming GreenFutures sustainability education framework, aimed at embedding sustainability principles into

¹ Griffith and Millard, 4-9.

² "Denver, Colorado: Learning Landscapes," 7.

^{3 &}quot;Mayor Nutter announces expansion of green schoolyard initiative."

school curricula, could easily be incorporated into a larger program. Furthermore, the learning objectives of GreenFutures would be augmented through the use of green schoolyards for environmental instruction. Funds appropriated for GreenFutures could also go towards gathering local historical documents for place-based learning activities.

Social Impact Bonds

An emerging financial tool that makes smart use of public funds is so-called "social impact bonds" or "pay for success" programs. In this scenario, public funds are spent more judiciously and not wasted on ineffective programs. At the outset of the bond issue, a set of specific social outcomes is outlined, and the public sector is only required to repay if those goals are met. More widespread in the United Kingdom, their use in the U.S. began with a focus on issues like recidivism and at-risk youth. Recently, however, they have begun to be used in the education sector to achieve positive measurable outcomes for school children. Chicago, for example, recently utilized a \$17 million social impact bond to expand its Child-Parent Center pre-kindergarten model to thousands more children. The goals embedded in the bond issue are increasing Kindergarten readiness, improving third-grade literacy, and reducing the need for special education services.⁴

Social impact bonds are typically constructed in a way that includes third party actors who are responsible for coordinating the provision of services being tested. In the case of Chicago, a local non-profit was chosen to be the Project Coordinator to manage the flow of funds from investors to Chicago Public Schools. A different non-profit was chosen to be the Program Intermediary, helping CPS identify best practices from around the field that could be used to further the success of the model.⁵

As is often the case in Community Schools, local organizations work together to provide services ranging from food pantries to adult education courses, using the school as a neighborhood hub for a wide range of activities. One could see the value in having an umbrella organization manage and coordinate the flow of services at the Philadelphia Green Schools. Therefore, this financing tool is most applicable to the community partnerships and community-focused services aspect of a comprehensive green schools program. It is important to point out that these third-party organizations would not be running academic programs or taking responsibilities away from the School District; they would be brought in to run community-focused programming. Even with this careful delineation between public and private activities, the bond would need to be structured in a way as to avoid any essence or perception of the privatization of public education. Because social impact bonds are created to test specific measurable outcomes, this financing tool could be very useful in a pilot stage, when it is highly important to demonstrate success.

Public and Private Grants

There is a fairly wide universe of public grant-making entities and private foundations that fund education initiatives at the city and school district level. Here a select few are highlighted due to their potential to their applicability to a Philadelphia Green Schools program.

^{4 &}quot;Mayor Emanuel Announces Expansion of Pre-K to More Than 2,600 Chicago Public School Children."

⁵ "Mayor Emanuel Announces Expansion of Pre-K to More Than 2,600 Chicago Public School Children."

The U.S. Department of Education runs a number of grant programs every year. One of the most applicable is the Investing in Innovation, or i3, program, which provides development, research, and scaling funds for evidence-based programs for K-12 education. Awards from this program could be useful for a PGS initiative at all stages from pilot to scale-up. The vast majority of i3 grants have been relatively small awards to support the development and testing of innovative and promising new educational approaches. A smaller number of more generous grants are so-called "validation" grants, which fund the delivery of services and more rigorous evaluation of interventions that have a more developed evidence base, but still need work to demonstrate their effectiveness and impact. Four grants in 2010 and one grant in 2011 went to so-called "scale-up grants," which expand programs already proven with rigorous evidence in an effort to reach more people and communities. The grant award must be met with matching funds, encouraging the practice of using every available dollar as leverage to bring in more dollars.⁶

An additional opportunity for this program is the Growing Greener grant stream, funded by the Pennsylvania Department of Environmental Protection, part of which goes towards watershed restoration and protection. In past years various entities in Philadelphia have received watershed grants for technical assistance, environmental education, river restoration, and more. The pieces of the green schools program that would apply include the physical stormwater infrastructure placed on schoolyards and the related environmental education activities.

When embarking upon a new venture that has the potential to be scaled up and implemented on a citywide level, there is a lot of value in creating strong partnerships with one or more local foundations whose mission aligns with the goals of the program. In Philadelphia, the William Penn Foundation a longstanding private foundation explicitly committed to funding ideas and programs that will improve the Philadelphia region, and educational success is one of their key focus areas. They awarded \$100 million in grants in 2014. Furthermore, they contributed money for the first 10 pilot schools of the Green2015 initiative. The foundation has a number of existing grant programs that relate to one or more elements of a comprehensive green schools program, but there is an opportunity for a closer and more meaningful partnership. It is recommended that they be brought in as a major funding partner, with a funding stream created specifically for a Philadelphia Green Schools initiative rather than trying to fit pieces of the program into their existing grant streams.

Joint-Use Agreements

Due to increasingly limited public funds for open spaces and community-oriented facilities, joint-use agreements have emerged as a cost-saving tool for cities and schools. Joint-use agreements establish the terms and conditions for the shared use of public property. The agreement is not only structured around sharing *benefits*, but also *costs*, as each party helps fund the development, operation and maintenance of the facilities that will be shared. The formation of joint-use agreements between the City of Denver and the

⁶ "Investing in Innovation Fund (i3)."

^{7 &}quot;Watershed Grants," PA DEP

^{8 &}quot;Mayor Nutter announces expansion of green schoolyard initiative."

⁹ "School Siting Guidelines Glossary," US EPA, accessed November 21, 2015, http://www.epa.gov/schools/school-siting-guidelines-glossary

Learning Landscape Alliance (a community-based association) emerged as the primary impetus for the district's Learning Landscape program. To be eligible for state funding, schools had to extend the use of their schoolyards to the community after school hours. In many cases, principals were prompted to participate in joint-use partnerships because of the new stream of funding made available through grants supporting joint-use. With a total investment of \$10.8 million from the City of Denver, the alliance completed 46 new playground facilities open to local communities and 22 learning landscapes serving approximately 11,500 students. Accordingly, this partnership serves as an important precedent with the implication that grants are a source of political power. Moving forward, cities can leverage existing funds and community in-kind services by designing incentives for strategic shared-use partnerships to arise.

In summary, benefits of joint-use agreements include (1) increased funding for school and community services and amenities, (2) efficient use of space, (3) increased interaction between cities and its school districts, and (4) increased physical and social activity. Some of the challenges inherent in joint-use partnerships include risk management and legal issues. Nevertheless, joint-use remains an important catalyst for collaboration between schools and communities. (See appendix for Steps to Create a Joint-Use Agreement.)

SCHOOL AND ORGANIZATION-SCALE STRATEGIES

Leverage Learning Networks

The School District of Philadelphia (SDP) has established "Learning Networks," which are cluster schools based on geography or kind (e.g. Innovation Schools)—the idea is that district resources can be better allocated and utilized if shared by schools organized into clusters. As part of its Learning Networks, the SDP has designated a network of Facility Area Coordinators, whose responsibilities revolve around the daily operation, maintenance, and housekeeping of a specified number of schools. Here, we seek to identify an important set of stakeholders within the district, including but not limited to community members, students, parents, teachers, and key public officials, and re-envision their roles in the funding and implementation process:



¹⁰ Brink, Lois and Bambi Yost, "Transforming Inner-City School Grounds: Lessons from Learning Landscapes," *Children, Youth and Environments* (2004): 208-232.

¹¹ "Shared Use of School and Community Facilities," Safe Routes to School, accessed November 20, 2015, http://saferoutespartnership.org/state/bestpractices/shareduse

School Redesign Initiative

Growing awareness around the potential benefits of re-designing schools has led to new platforms for re-thinking education and engagement. Earlier this year, the SDP put out a call for proposals in what it is calling a School Redesign Initiative 2015-16. The initiative provides ground-up opportunities for school leadership, teachers, community members, and other school stakeholders and educators to engage firsthand in research-based innovative practices. Such an approach encourages flexibility, creativity, and cross-collaboration. Additionally, it often results in projects that reflect the community's culture and values. Though the program is still in its early stages, we found that its objectives align closely with the mission of Philadelphia Green Schools. We hope that identifying it as a potential funding source for Philadelphia Green Schools can increase accountability for increase collaboration and measurable outcomes.

Green Schoolyard Grants

Green schoolyard grants exist specifically to fund the costs of building a schoolyard, landscaping, and/or outdoor beautification. Such grants may, for instance, provide materials for the creation of a new garden. Though green schoolyard grants do not necessarily reflect the overall objectives of the Philadelphia Green Schools program, they can nevertheless serve as a source of interim funding. Moreover, because the grant application process requires a substantial level of research, collaboration, and planning, they help generate momentum for the program.

Finding a Grant Facilitator

In making sure there are no missed opportunities, we recommend that SDP highly consider designating grant facilitators. Beyond being responsible for writing the grants, grant facilitators can help identify potential funding sources as they emerge; develop plans for phasing, implementation, and maintenance; construct budgets; and bring together stakeholders, including but not limited to educators, principals, district offices, city officials, and community organizations. Because SDP's Learning Networks are beginning to expand and re-organize based on type of school, grant facilitators would be well-positioned to coordinate resources and encourage collaboration within these established Learning Networks.

Grant Application Workshops

Grant application workshops can be an effective way for the district to provide the necessary training for educators and/or anyone interested in securing seed funding for interim, short-term, or pilot projects that support the long-term objectives of the Philadelphia Green Schools Program. Workshop training can help streamline the grant-writing process by introducing the elements of a proposal, how to develop measurable outcomes, how to create a budget and timeline, how to plan ways for the program to be sustainable, and more generally,

how the grant proposal review process works. In terms of implementation, the district ought to ensure that the right incentives are put in place when developing training programs; for example, workshops are more likely to succeed if teachers can accrue professional development points by attending the workshops. Once established, workshops can help prepare anyone, be it a student or a parent, who is inspired to make an impact at their school or in their neighborhood.

Important Considerations for a Successful Grant Proposal

There are a variety of resources available for crafting successful grant proposals. Here, we distill what we think are the most important considerations for educators looking to apply for classroom- and school-level grants (though these recommendations are applicable to larger-scale proposals as well):

- 1. Be specific about objectives and outcomes.
- 2. Develop a clear plan of action.
- 3. Design a way to measure outcomes.
- 4. Be clear and concise.
- 5. Identify existing resources.
- 6. Identify potential partnerships.
- 7. Identify management and maintenance goals. (Who will be responsible for which tasks?)
- 8. Provide context. (Put your proposal in context and provide preliminary data where appropriate.)
- 9. Get to know your grant administrator. (Get familiar with the types of projects the granter will fund. If possible, find successful grant applications that relate to the call for applications.)

(See appendix for Example of a Successful Grant Proposal.)

INDIVIDUAL EDUCATOR STRATEGIES

Curricular Innovation Grants

There are a number of opportunities that exist at the educator-level that do not necessarily exist at the school-, district-, or city- level. Our focus on funding opportunities for individual schools, neighborhood organization, and educators strives to reinforce the value in pilot programs. Curricular innovation grants provide funding for pilot initiatives that can be carried out in a short amount of time with limited resources. Because pilot programs are relatively low-cost, they capture the value in experimentation, which is often a rewarding process in teaching.

The Captain Planet Foundation (CPF) is an example of an organization that provides funding and training for innovative initiatives that inspire youth as they work together to

create environmental solutions in their homes, schools, and communities. ¹² This year, with support from Tops Markets and Dole Foods, the Nardin Academy in Buffalo, New York obtained a CPF grant to construct its Learning Garden, comprised of 3 indoor aquaponic gardens, all designed with a zero-waste model for local scratch-cooked foods. As part of its sustainable design, the schoolyards incorporated recyclable dishwater and composting, in addition to low-flow toilets and sinks. The CPF also provided training for a sustainability coordinator, whose role was to integrate curriculum focused on hands-on learning that instills a greater sense of environmental stewardship. These teaching strategies are an important part of the toolbox CPF designed to help educators successfully conduct learning in their outdoor classrooms. ¹³

CONCLUSION

Some of the themes explored in this paper include leveraging new and existing resources, advancing partnerships across cities, districts, schools, and educators, and integrating physical and social sustainability. Funding is often an important catalyst for collaboration. The aim of this paper is to outline ways in which the city, the district, educators, advocates, and neighbors can work together to leverage and create funding streams that will support a robust program for years to come. Philadelphia schools are undoubtedly in need of adequate funding and efforts to restore funding have been undeniably slow. Yet, the SDP has begun to recognize that schools can play a positive role in leading neighborhood transformation, as evidenced by the School Redesign Initiative established earlier this year. Although funding opportunities are not necessarily limited to the set of tools or stakeholders we have identified in this paper, we believe this paper offers a helpful framework for prioritizing implementation strategies and increasing accountability within the city and among schools.

Finally, the wealth of information on the various funding tools we have analyzed extends far beyond the scope of this paper—we have provided additional links for anyone interested in learning more about these resources.

^{12 &}quot;Our Mission," Captain Planet Foundation, accessed November 21, 2015, http://captainplanetfoundation.org/mission/

¹³ Nardin Gardens teach lessons in sustainability," Buffalo News, accessed November 19, 2015, http://www.buffalonews.com/life-arts/refresh/nardin-gardens-teach-lessons-in-sustainability-20151107#

Resources for Website

Social Impact Bonds

PA DEP Watershed Grants

DOE i3 Grants

Joint-Use Agreement FactSheet: http://www.changelabsolutions.org/publications/what-is-JUA

Joint-Use School Facilities Cost Calculator: http://citiesandschools.berkeley.edu/uploads/21csf_CC+S_School_Facilities_Cost_Calculator_User_Guide.pdf

Shared-Use Best Practices: http://saferoutespartnership.org/state/bestpractices/shareduse

School Redesign Initiative: http://www.schoolredesignphiladelphia.org/

Captain Planet Foundation: http://captainplanetfoundation.org/

Steps to create a joint-use agreement

- Obtain approval & select negotiators
 - · Identify community and school needs
 - Inventory properties
- Agree upon scope of joint use
 - Inspect proposed joint use facilities
 - Identify and research agreement on issues involving 3rd party use
- Agree upon improvements and improvement protocol
 - · Agree upon cost analysis
 - · Tool: School Facilities Cost Calculator
- Risk management and legal issues
 - Determine term of agreement, methods of evaluation, and renewal
 - Identify training needs and develop a training plan

Example of a successful grant proposal:

Project Name: Project BELL Learning Landscape

Project Description:

Our landscape design project will take place on the existing Bell Middle School campus, located in the South Bay Terrace neighborhood of San Diego. The school's main field is situated on a former landfill, which has prevented the field from being converted into a playing field for children. Our project therefore seeks to increase the amount of landscaped green space within the school's campus. The project intends to use the school and the local community as a model for encouraging youth involvement in community-based landscape design projects. Landscape improvements will take place in the school's main gathering areas, connecting corridors, and school front.

An uninspired school design and a deteriorating landscape reveals to its students what little value they have in our community. This project is predicated on the belief that a school's built environment plays an indispensable role in creating a place that makes its students feel that their school—and in turn, their education—is important. Kids need space to grow, literally, and both the design and composition of this space play an important role in influencing their imagination and involvement. Within the next year, this project will implement a community-based "learning landscape" that will transform the school's grounds into a dynamic learning environment, which will include the installation of a school garden, safe and sustainable play surfaces, shade structures, planters with seating, native plantings, and student artwork.

The potential success of our project is strengthened by our established friendship with the Bell Middle School and Morse High School community (of the San Diego Unified School District), in addition to their alumni, who are now planners, landscape architects, shop owners, and consultants in the San Diego community. In the last three years, our college volunteers at Project B.E.L.L. have created meaningful mentorships with middle and high school students through its academic programs, which have formed the basis for intergenerational collaboration on this project's landscape design.

Project Schedule

- Conduct additional research and site evaluations of the campus's physical state in order to distill methods of best practice (December 2013)
- Build partnerships with local non-profits to expand the scale of our project and increase its
 potential as a model for replication in other schools (December 2013-May 2014)
- Organize a 5-part series of design charrettes with the students, teachers, and parents of the Bell Middle School and Morse High School community (January-February 2014)
- Create a conceptual model (February 2014)
- Create "work parties" of volunteers to assist with final implementation; recruit approximately 200 college students and community members (March-May 2014)
- Expected project completion date: <u>May 2014</u>
- Conduct a post-project review (June 2014)

Project Benefits to the Community

A sustainable landscape that inspires environmental stewardship: 1) A garden that consists of
native, drought-resistant vegetation 2) Safe play surfaces and shade structures made of
natural materials 3) Planters that enhance green space in connecting corridors 4) Student artwork that evokes an appreciation for place-making

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