August 2015

The Arthur M. Blank Family Foundation

Pathways to Success:
The Pipeline Project

The goal is to set learning on fire.
- Gregg Behr, The Grable Foundation

About The Arthur M. Blank Family Foundation

Formed in 1995, The Arthur M. Blank Family Foundation promotes innovative solutions to transform the lives of youth and their families, seeking results that move communities beyond what seems possible today. The Foundation invests in early childhood development, education, green space and the arts, and leads giving programs for each of the Blank Family of Businesses, including the Atlanta Falcons, PGA TOUR Superstore, Mountain Sky Guest Ranch and MLS Atlanta. Mr. Blank, chairman of the foundation, co-founded The Home Depot, the world's largest home improvement retailer, in 1978 and retired from the company as co-chairman in 2001. Through the foundation and his family's personal giving, Mr. Blank has granted nearly $300 million to various charitable organizations.

The Pipeline Project

The Foundation's Pipeline Project seeks to increase the number of low-income, preK-12 students in Atlanta Public, Fulton County and DeKalb County demonstrating demand for and proficiency in STEAM subjects (see Attachment 1). The Pipeline Project believes in learning by doing and seeks to use experiential, hands-on programs to draw more students into the pipeline.

In pursuit of the long-term goal of more students earning postsecondary certification and degrees in STEAM fields, The Pipeline Project will invest in innovations that disrupt the status quo for underserved preK-12 students.

The Pipeline Project is especially interested in emerging programs that succeed in reaching youth who would otherwise have little meaningful access to hands-on STEAM programs. It is through these classrooms, after-school and summer experiences that The Pipeline Project seeks to build both the supply of and the demand for STEAM programs among low-income youth and their families. By fostering peer learning and exchange through the collection of Pipeline Project partner organizations, AMBFF seeks to build a network of practitioners with influence sufficient enough to shift the direction of policy and the allocation of resources toward students who are not served by the current system.

What We Mean by STEAM

Virginia Tech Professor Mark Sanders correctly describes the many furious efforts to expand science and technology education as "STEMmania."[1] It started with a variation of the acronym – "SMET" – in the 1990s, a notion originated by the National Science Foundation. Then "SMET" begat "STEM," which then begat "STEAM." Today, a Google search for "STEAM Education" turns up more than 90,000 results.

For The Pipeline Project AMBFF is interested in approaches that integrate the most stimulating, hands-on methods that make learning come alive for students – the methods we know really do set learning on fire.[2] The strongest candidates for funding will include elements of:

- The maker movement, where doing is learning and there are iterations of trial-and-error tinkering and project-based learning.

- Design thinking that ignites the creative process for young people as they imagine (and reject) new solutions and then work through concepts, options for materials, practice and prototyping, fabricating and interpreting.

- Coding, robotics and gaming, through which young people learn technical skills and – most important – are challenged to apply the technical tools in meaningful ways in their communities and through music, arts and entertainment, animation and storytelling.

So for The Pipeline Project, STEAM is necessary shorthand for all that. The Pipeline Project is interested in programs that apply these methods across any and all of the disciplines – science, technology, engineering, arts and mathematics.

Call for Proposals

The Pipeline Project seeks proposals from nonprofit organizations, community groups and classroom teachers delivering hands-on STEAM programming to preK-12 youth who would not otherwise be served. Organizations must primarily serve low income children and those underrepresented in STEAM fields.

For all requests, from classroom teachers as well as nonprofit organizations and community groups, The Pipeline Project will give preference to applicants that:

- Serve students attending public schools in Atlanta Public Schools, Fulton County Schools and Dekalb County Schools.

- Demonstrate how the proposed support will remove specific barriers to expand participation or heighten impact.

- Demonstrate strong relationships with students and families not currently being well served by the education system.

[1] "STEM, STEM Education, STEMmania," The Technology Teacher, December/January 2009, pp. 20-26.
[2] We are grateful to The Sprout Fund and The Grable Foundation, which lead the Kids + Creativity Network in Pittsburg, for stimulating our thinking and sharing so generously from their STEAM concepts.

- Use hands-on, project-based learning methods to heighten learning among participants.

- Demonstrate how they are partnering with other organizations to ensure the youth being served have expanded STEAM opportunities once short-term programs conclude.

- Deliver dual-generation programs, engaging preK-12 students and parents (or caregivers) together in STEAM experiences.

- Approach STEAM through non-traditional routes that heighten interest among students, including entertainment technology.

- Demonstrate an understanding of the social justice implications associated with STEAM access for underserved students and their families.

Non-profit and Community Group Proposals

Organizations and community groups seeking support for after-school and summer programs should begin by completing an online questionnaire. Based on its review of the questionnaire, AMBFF will invite a select number of organizations and community groups to move forward with formal grant applications.

Nonprofit organizations and community groups engaging low-income preK-12 youth from Atlanta Public, Fulton County and DeKalb County in after-school and summer STEAM programming are eligible to apply. The Pipeline Project is especially interested in community-based programs using innovative, creative methods to build demand among low-income youth and their families for STEAM programming.

For after-school and summer programs, The Pipeline Project will consider requests for three types of support:

- **Grants** – The Pipeline Project will award program grants. Applicants must show how the awards will remove barriers to participation or heighten impact.

- **Equipment** – The Pipeline Project will consider requests for equipment that removes barriers to participation or heightens impact.

- **Human Capital** – Through the AMBFF network of partners, The Pipeline Project will work to match small, emerging programs with volunteers, loaned executives and advisors who can make practical and immediate contributions to the lives of the youth being served.

Community groups and associations are eligible. **Applicants may have a 501c3 designation, but such a designation is not required to be considered.**

Classroom Teacher Proposals

For classroom teachers, The Pipeline Project is partnering with DonorsChoose.org to consider requests for equipment and supplies that advance learning by doing. The Foundation will consider funding one-half of the cost of the equipment requests on DonorsChoose.org for selected eligible teachers. Once donors have funded 50 percent of the costs of the eligible DonorsChoose.org request, The Pipeline Project would provide the rest of the funding needed.

Classroom teachers in “highest poverty” public schools in Atlanta Public Schools, Fulton County Schools and DeKalb County Schools are eligible for consideration. DonorsChoose.org denotes “highest poverty” schools as those where at least 65 percent of students receive free/reduced lunch. Both traditional public and public charter schools are eligible.

To be considered, teachers must submit requests through the DonorsChoose.org platform and succeed in having DonorsChoose.org post the requests on its platform. The Pipeline Project will not award cash grants to teachers, and the Foundation will not accept applications for equipment from teachers directly.

The Foundation will consider funding one-half of the cost of equipment requests selected by DonorsChoose.org from eligible teachers. Once donors have funded 50 percent of the costs of the eligible DonorsChoose.org requests, The Pipeline Project would provide the rest of the funding needed.

Timeline

Teacher Grants

From August 18, 2015, through August 17, 2016, classroom teachers may provide for matching funds for eligible STEAM projects submitted to the DonorsChoose.org website. Teachers should go to the DonorsChoose.org help desk, http://help.donorschoose.org/hc/en-us, for guidance on submitting requests.

Non-profit and Community Grants – Suggested Schedule for Round Submissions

An invitation to submit a grant application does not guarantee funding at any level. Grants are awarded on a competitive basis. The Pipeline Project expects to make grant awards in 2015 and 2016. Organizations submitting completed applications earlier are more likely to be considered for funding before Dec. 31, 2015. For organizations seeking suggested deadlines for questionnaires and applications, the dates below serve as a guide.

Submitted Online Questionnaires Reviewed	Notification of Invitation to Apply	Applications Due*
September 15	September 18	September 29
October 15	October 20	October 29
November 11	November 16	December 1
December 1	December 4	December 11

Invited applicants who submit past this date may be considered for funding during a future month. No questionnaires will be accepted after December 1 and no applications will be accepted after December 11.

To submit questionnaires or for more information, please contact:

Ayana Gabriel
The Pipeline Project
The Arthur M. Blank Family Foundation
3223 Howell Mill Road
Atlanta, GA 30327
Submit questionnaires here
Contact for more information

ATTACHMENT 1: THE STEAM PIPELINE PROBLEM

The good news: There is demand for STEM jobs in Georgia. Between 2010 and 2020, more than 20,000 new STEM jobs will open up in the state.[3]

The bad news: Georgia ranks in the bottom quartile of graduates with two-year and four-year STEM degrees.[4]

The scarcity of STEM and STEAM graduates is the result of a broken pipeline.

- Readiness is low; only 15% of Georgia graduates took a math or science AP exam.
- Of the 32,420 African-American public school students receiving a diploma in Georgia in 2014, *only 35 of the students scored 3 or higher on the AP computer science exam*.

And the pipeline problem starts early, and it's worse in Atlanta than the state overall. Students of color and low-income students represent only a trickle in the STEAM pipeline. The 2013 NAEP 4th Grade Math assessment reported a 47-point gap between the percentage of white and black APS students scoring at proficient or advanced level. By 8th grade, the black-white gap widens to 51 points on NAEP math assessments.

In the annual honors list published by the state Department of Education – which recognizes high-achieving schools based on the AP offerings – the Gwinnett system has *10 times more* high schools represented than APS.[5]

[3] "Georgia Workforce Trends", *GA Dept of Labor*. https://explorer.dol.state.ga.us/mis/current/gaworkforcecurrent.pdf
[4] National Science Foundation, http://www.nsf.gov/statistics/seind14/index.cfm/state-data/map.htm?table=16
[5] Georgia Department of Education. (2015) *Superintendent Woods names AP Honor Schools for 2015* [press release]. Retrieved from https://www.gadoe.org/External-Affairs-and-Policy/communications/Pages/PressReleaseDetails.aspx?PressView=default&pid=284.

GA DOE AP STEM rankings:

- **AP STEM Schools** are schools with students testing in at least two AP math courses and two AP science courses (AP Calculus AB, AB Calculus BC, AP Statistics, AP Biology, AP Chemistry, AP Environmental Science, AP Physics B, AP Physics C, AP Computer Science)
- **AP STEM Achievement Schools** are schools with students testing in at least two AP math courses and two AP science courses and at least 40 percent of the exam scores on AP math and AP science exams earning scores of 3 or higher