

Submitted to the White House Initiative on Educational Excellence for African Americans

I. EDUCATIONAL JUSTICE

ELIMINATING RACIAL, SOCIOECONOMIC, AND GENDER ACHIEVEMENT GAPS

**JEROME TAYLOR, CHAIR, AFRICANA STUDIES, UNIVERSITY OF PITTSBURGH; CHAIR, BRAIN TRUST, HILL DISTRICT EDUCATIONAL COUNCIL;
PRESIDENT AND FOUNDER, CENTER FOR FAMILY EXCELLENCE, INC.**



Educational Justice

Eliminating racial, socioeconomic, and gender achievement gaps

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CONTENTS

- **Dame-Dame Schools close or reverse achievement gaps** 3
- **We CAN Schools potentiate and maintain just outcomes** 11
- **STEM applications prepare students for jobs of the future** 24
- **Educational Justice requires community empowerment** 30
- **Educational Justice requires federal and state engagement** 33

Dame-Dame Schools

Predominately black ($\geq 75\%$) low-income ($\geq 75\%$) public schools located in high-risk neighborhoods that have nearly closed or actually reversed racial, socioeconomic, and gender achievement gaps.

Dame-Dame Schools:

Development and Evaluation (Revision 1)

Jerome Taylor¹

October 23, 2013

DAME-DAME (dah-me, dah-me), a symbol of the Adinkra of Ghana, connotes intelligence, curiosity, and ingenuity—attributes we believe are essential for bringing educational justice to high-need schools in high-need communities. These schools are not themselves named Dame-Dame Schools which we apply as appellation only to recognize their exceptionality. It is important to note that policies and practices associated with Dame-Dame Schools are an integral part of our We CAN proposal which embraces and supplements these policies and practices to accelerate the achievement of educational justice. So We CAN is Dame-Dame plus some. In advance, I ask you to forgive the technospeak which I found necessary in presenting the case for Dame-Dame. Just bear with me if you would, and I'm sure you'll get the gist of what we're proposing in behalf of the best interests of our children, their families and community—a goal I know we share.

Development: Toward a Theory of Accelerated Learning

In 2007 we identified 107 predominately black ($\geq 75\%$) low-income ($\geq 75\%$) Dame-Dame Schools. Although these K-12 public schools were located in 16 metropolitan neighborhoods characterized by high levels of poverty, criminal activity, teen pregnancy, and attenuated households, all had nearly closed or actually reversed racial achievement gaps in reading and math.

Before examining a small sample of these Dame-Dame Schools, Taylor and his students identified six policies and practices that, from our review and sifting of the literature, were linked to accelerated achievement of black students in urban settings. Five items were written for each of these policies and practices, generating a total of 30 items which presently constitute *A Gardening Metaphor Inventory* (AGM Inventory, see Appendix which also introduces the six policies and practices we've identified as associated with accelerated achievement).

In our initial application, we asked pairs of raters to apply AGM Inventory items to published descriptions of one public elementary school and one charter middle school that had reversed racial achievement gaps in reading and math. We required the two raters of each school to discuss and resolve differences in ratings. Using these resolved ratings together with a scoring procedure that converted component and total ratings to percentages, we found each of these two schools had a total rating $> 75\%$. Subsequently, we then assigned pairs of students to evaluate 20 whole-school 'proven reforms' posted on the *What Works* website maintained by USDE. Based on resolved ratings on published materials describing these reforms, two of these approached but did not reach $\geq 75\%$ (James Comer's *School Development Program* and Robert Slavin's *Success for All*) and the remaining 18 were distantly removed from a total AGM rating $\geq 75\%$.

The next step in our development effort entailed inviting six Dame-Dame School principals to Pittsburgh, each of whom completed our AGM Inventory prior to coming. While in Pittsburgh each principal was interviewed 90 minutes to identify qualitative amplifications that deepened our understanding of how identified AGM policies and practices played out at ground level in K-5, K-8, 6-8, and 9-12 configurations. For each Dame-Dame principal, whose school had actually reversed racial achievement gaps, the total AGM Inventory rating was $\geq 75\%$. Also we had

¹ President and Founder, Center for Family Excellence, Inc., Pittsburgh, PA; Chair, Department of Africana Studies, University of Pittsburgh

two Pittsburgh principals, whose schools had closed racial achievement gaps in math, complete our AGM Inventory. The total AGM Inventory rating in both cases was $\geq 75\%$. *Based, then, on student and principal ratings we associate movement toward educational justice with AGM $\geq 75\%$.*

Finally, and associated with the preceding step, Dame-Dame principals provided a 2 hour public lecture attended by three Hill District elementary school principals. Additionally, these Hill District principals with central administration support met subsequently in two-hour group consultations with these Dame-Dame principals over two years—three in Y1 and three in Y2. *Across this two-year exposure to Dame-Dame principals, student proficiencies increased by an average of 42.42 percent in math and 15.69 percent in reading for these three elementary schools which outperformed almost all demographically similar and dissimilar elementary schools in the district. Moreover, these two-year improvements were unprecedented in these schools for any two-year adjacent period going back six years.*

We are the first to recognize shortcomings of our research to date—lack of randomly assigned intervention and control schools in our Dame-Dame Principals initiative, absence of on-site trained observers of teacher and principal behaviors of demographically matched schools, or unfunded capacity to implement sophisticated Hierarchical Linear and Nonlinear Modeling that would allow sorting of within-student, within-school, between-school, and between-region sources of variation in student achievement and growth. These shortcomings we have in mind and ask the reader to bear in mind as we examine one approach to the question of validity: *To what extent are policies and practices estimated by our AGM Inventory associated with educational justice—accelerated achievement, gap closure, or gap reversal?*

Validity: Evaluating a Theory of Accelerated Learning

The following table represents our exploratory approach to the question of validity.

Table: Exploring the Validity of AGM Cut-Off Scores

AGM Cut-Off Percent Met ($\geq 75\%$)?	Gap Closure Accelerated or Complete?	
	Yes	No
Yes	10 (Cell1)	0 (Cell 2)
No	2 (Cell 3)	18 (Cell 4)

We have 10 cases in **Cell 1** where our AGM cut-off ≥ 75 was met (2 reported in our AGM paper and 8 obtained from interviews with Dame-Dame principals—6 national and 2 local). All 10, national and local, met at least our silver standard with 75% or more proficient in math *or* reading, and most met our gold standard with 85% or more proficient in *both* reading and math. .

In **Cell 2** we do not have any cases where our AGM cut-off standard was met and justice attainment not accelerated or achieved. This we'll have to investigate in future studies where we will include non-Dame-Dame Schools in our sample which we have not done to date.

In **Cell 3**, where our AGM cut-off was approached but not met, only two whole-school reforms (*School Development Program, Success for All*) have been identified in national studies as having significant effects on math or reading proficiencies for minority students.

Cell 4 includes 18 whole school reforms supported by USDE that fell well below our AGM standard. Based on results of national studies, none of these reforms significantly improved reading or math proficiencies of minority students.

The question of validity can be answered provisionally using informal or formal methods:

- *Informal:* Consider the sum of Cells 1 and 4 ($10 + 18 = 28$) which would be predicted under our theory relative to the sum of Cells 2 and 3 ($0 + 2 = 2$) which would not be predicted under our AGM theory. Informally, you might take the relative sums 28 vs. 2 as offering support for the validity of our theory. But perhaps the larger issue here is that we need more numbers to provide confident evaluation.
 - *Formal 1: calculate the Odds Ratio* on cross-products of cell-wise frequencies: $OR = [Cases (1 \times 4) / Cases (2 \times 3)]$. Higher OR values would lend support for the validity of the six accelerative policies and practices identified by our AGM Inventory. But note here that the value in Cell 1 is 0 such that the denominator of OR is zero ($0 \times 2 = 0$). Because division by 0 is undefined, we can't estimate OR. But for the purpose of illustration, let us suppose that 5 or one-third of the cases on row 1 fell in Cell 2. We would then estimate $OR = (10 \times 18) / (5 \times 2) = 18$ which would lend strong support for our theory since an odds ratio is a measure of the extent to which AGM is associated with just outcomes relative to exposure to non-AGM reforms. Here, exposure AGM policies and practices would be 18 times more likely to promote justice than exposure to non-AGM models, *e.g.*, most of the whole-school 'proven' reforms supported by USDE. Of courses this speculation is no substitute for real data—that lies ahead.
 - *Formal 2:* If we wanted to control for demographic (*e.g.*, gender or age) and other variables (*e.g.*, neighborhood poverty, parents' education) that potentially affect the relationship between AGM and accelerated achievement, then, with a sufficiently large number of schools, we could use logistical regression models to control these variables as OR is estimated.
-

AGM Inventory R2 © 2007
Principals Version
Jerome Taylor, Sarah Orgass, and Epryl King

Directions: First indicate whether you have been instructed to rate activities covering THE LAST WEEK __, THE LAST MONTH __, THE LAST GRADING PERIOD __, THE LAST YEAR __.

Next, read each of the following items carefully and objectively—honestly. Then rate the extent to which behaviors described in each statement match teacher or principal behaviors in the classrooms during the period of observation selected above:

NEVER (0), RARELY (1), SOMETIMES (2), FREQUENTLY (3), ROUTINELY (4).

Item	0	1	2	3	4
<u>SO</u>					
1. Teachers displayed and discussed pictures of distinguished black individuals who overcame early obstacles to learning (e.g., Ben Carson, MD, Frederick Douglass).	0	1	2	3	4
2. Teachers helped students face learning challenges by patiently encouraging them to try harder.	0	1	2	3	4
3. Teachers helped students face learning challenges by patiently encouraging them to spend more time on their assignments—or ask for assistance.	0	1	2	3	4
4. Teachers helped students see that learning is important to their future and to the future of their neighborhood and community.	0	1	2	3	4
5. Teachers structured teams whose students inspired one another to strive toward successful completion of their assignments.	0	1	2	3	4
<u>Subtotal SO</u> =					_____
<u>SE</u>					
1. Teachers stimulated and sustained the curiosity of students at <i>every</i> level of performance—from high to low achievers.	0	1	2	3	4
2. Teachers planfully moved students from mastery of basic skills to mastery of deeper concepts underlying basic skills.	0	1	2	3	4
3. Teachers' instructional plans were aligned with state and national standards.	0	1	2	3	4
4. Teachers assigned daily seatwork to consolidate mastery of learning at <i>all</i> levels of instruction—from basic to conceptual learning.	0	1	2	3	4
5. Teachers assigned daily homework to consolidate mastery of learning at <i>all</i> levels of instruction—from basic to conceptual learning.	0	1	2	3	4
<u>Subtotal SE</u> =					7 _____

RO

1. Teachers used curriculum and practices that increased students' quest for new knowledge (*e.g.*, self-confidence, learning orientation, and self-reliance).
2. Teachers used curriculum and practices that improved students' emotional competence (*e.g.*, self-persistence and self-esteem).
3. Teachers used curriculum and practices that improved students' social skills (*e.g.*, love and respect and interpersonal skills).
4. Teachers used curriculum and practices that improve students' appreciation of his or her culture.
5. Teachers used curriculum and practices that helped students see how their culture can help them make good decisions within and outside the classroom.

0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

Subtotal RO = _____

EN

1. School implemented plan to promote excellence in academic engagement and achievement outcomes with parents, peers, churches, organizations and neighborhoods.
2. School monitored the extent to which parents, peers, churches, organizations and neighborhoods implemented this plan.
3. School recognized and celebrated parents, peers, churches, organizations and neighborhoods that were implementing this plan.
4. Community implemented plan that held schools and school districts accountable for excellence in academic engagement and achievement outcomes.
5. Community recognized and celebrated schools that were successfully accelerating the closure of racial achievement gaps.

0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

Subtotal EN = _____

GA

1. Teachers believed that with effort they could get through to even the most difficult or unmotivated students.
2. Teachers promoted and sustained high expectations of all students in their classroom.
3. Teachers utilized feedback in ways that enhanced their sense of efficacy and enjoyment of teaching.
4. Teachers worked in collaborative teams which identified students' progress and corresponding methods for improving students' progress.

0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

(Continue on next page..8)

GA (Cont'd).

5. Teachers participated in plans and activities that enhanced levels of parent, peer, church, organization and neighborhood support of academic excellence.

Subtotal GA =

GS

1. Principal oversaw training in methods and practices that accelerate the closure of racial achievement gaps.
2. Principal assigned master teachers or instructional leaders who supported teachers' implementation of methods and practices that accelerate closure of racial achievement gaps.
3. Principal oversaw plan for teacher teams that shared their work and developed *and* monitored collaborative strategies for accelerating the closure of racial achievement gaps.
4. Principal oversaw plan for providing *timely* assessment driven feedback on the extent to which teacher methods and practices accelerate closure of racial achievement gaps.
5. Principal oversaw plans for identifying or recognizing teachers successful in accelerating closure of racial achievement gaps.

Subtotal GS =

0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4
0	1	2	3	4

Note: Percentages are based on (Subtotal/20) x 100

1. SO%

2. SE%

3. RO%

4. EN%

5. GA%

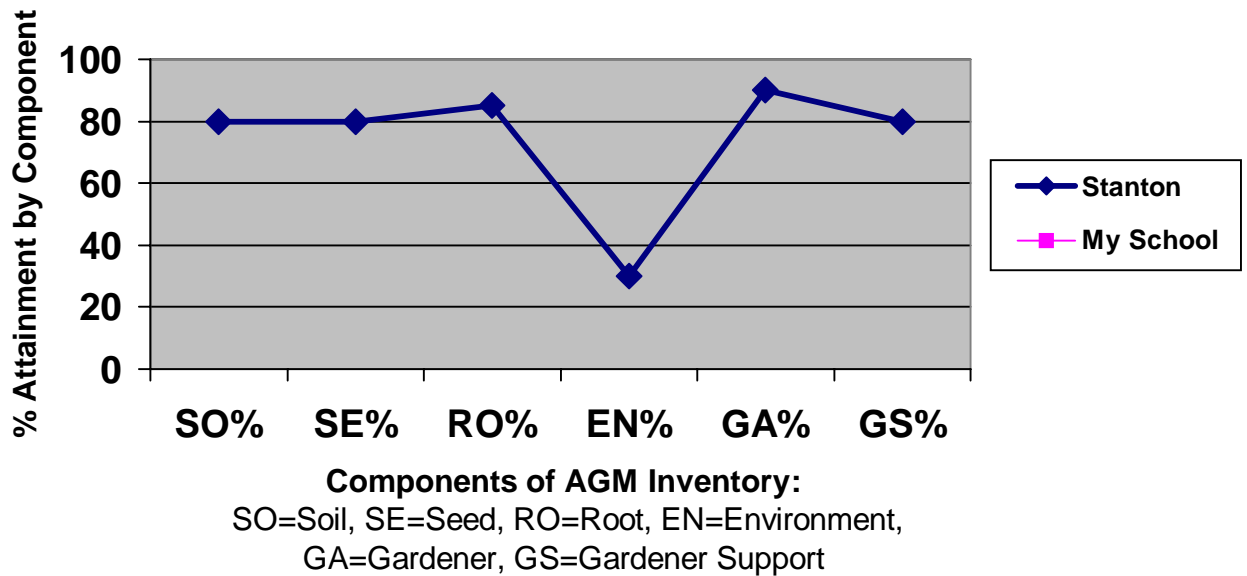
6. GS%

7. Sum%: 1 through 6

8. $J_k = \text{Justice Potential Estimate: (Sum \%)/6}$

Application Exercise for Administrators (Elective)

M. HALL STANTON IS A HIGH POVERTY, HIGH-ACHIEVING, ALL-BLACK elementary school located in an economically blighted neighborhood of North Philadelphia, Pennsylvania. Stanton has not always been a high-achieving school. In 2002, student proficiency levels in reading and math on PSSA test were 13 and 20 percent, respectively. Under the leadership of Principal Barbara Adderly, proficiency levels of reading and math dramatically accelerated to 73 and 84 percent, respectively, in 2005. *Indeed, in 2005 the percent proficient in reading and math at Stanton exceeded the percent proficient on both city and state levels, i.e., racial achievement gaps were reversed in the disciplines of math and reading.* Based on observations and interviews conducted in October 2004 and October 2005 by Karin Chenoweth (2006), a team of two University of Pittsburgh evaluators rated Stanton on the AGM Inventory. Here's what we found.



The overall Justice Potential Estimate was 74 at Stanton. As an application exercise, map your AGM percentage scores onto this figure. Then draw a line connecting the points.

1. What do you make of similarities and differences between 'Stanton Elementary' and 'My School'?

2. Are there things you would consider changing or doing differently in 'My School'?

3. What would be required to make these changes should you believe they are necessary to support accelerated achievement gap closures? _____

Please indicate whether you have read *A Gardening Metaphor: Framework for Closing Racial Achievement Gaps in America*: Yes__ No__.

An internet accessible description of Stanton's turnaround may be found in: Chenoweth, K. (2006). *It is being done: M. Hall Stanton Elementary School*. The Achievement Alliance: www.achievementalliance.org.



We CAN

Ensures and extends Dame-Dame School policies and practices to enable and sustain educational justice in predominately black low-income schools located in high-risk urban neighborhoods.

We CAN: Progress and Upgrade:

A Reform to Eliminate Racial, Socioeconomic, and Black Male Achievement Gaps

Five-Year Final Report Submitted to:

Neighborhood Partnership Program
Pennsylvania Department of Community and Economic Development
BNY Mellon
McAuley Ministries
Hill House Association

Jerome Taylor, PhD, President and Founder

Center for Family Excellence, Inc.

September 23, 2013

W

Acknowledgments and Overview

WE ARE DEEPLY INDEBTED TO OUR FUNDERS for the opportunity to implement, evaluate, and upgrade our We CAN reform designed to eliminate racial, socioeconomic, and black male achievement gaps. Without their financial enablement this report which details our challenges and successes would not have been possible. This report is organized into sections that chronicle our journey:

- **Section 1** (page 1) describes Y01 through Y03 when we identified and studied K-12 low income predominately black schools located in high risk communities that have nearly closed or actually reversed racial, socioeconomic, and black male achievement gaps. Study of these schools confirmed the presence of six policies and practices that appear critically important in closing or reversing achievement gaps. We summarize here achievement gains associated with exposing Hill District elementary principals to principals of these gap closing and reversing schools. *Results suggest that achievement gains for their students far exceeded our initial goal of 4 percent gap reduction and 5 percent achievement gains.*
- **Section 2** (page 3) provides a summary of results for Y03 through Y05. During this time we shifted to less costly elements of We CAN because of funding reductions. We found 30 to 45 percent gains in math proficiency associated with three to five months of involvement with our digital math program and 52 to 62 percent gains in student knowledge of science concepts and practices associated with our Engineering and Robotics program. We also describe here the early returns on our Values for Life program which we found accelerated students' engagement and proficiency in our digital math program. Finally, we describe the long road which led to successful outcomes in training and certifying activists and residents in the six policies and practices associated with closing and reversing achievement gaps. As indicated there, we are now poised to offer this training to teachers and principals as well as parents.
- **Section 3** (page 6) provides a full statement of our Upgraded We CAN reform based on experiences of the first five years. Our updated model will include, for example, a digital reading program because of current and previous challenges in reading proficiencies in the Hill District and beyond. Reasons for additional upgrades are predicated on national, state, and local awards associated with newly proposed or revised elements introduced in this section.
- **Section 4** (page 9) contains a sample of what national experts are saying about We CAN.

WE ARE PLEASED TO ACKNOWLEDGE THAT THIS FIVE-YEAR TERM OF FUNDING has led to major upgrades in our We CAN model which provides Curricular, Axiological, and Normative enhancements designed to eliminate achievement gaps. In this section we examine Y01 through Y03 activities that were critical in upgrading Normative Enhancements that seem promising in our quest for policies and practices that accelerate the achievement of educational justice. In Section II, we provide pilot data on our Curricular and Axiological enhancements that also seem promising in our quest for educational justice. Section III provides a full statement of our We CAN upgrade, and Section IV examines five reasons why we expect our model will answer our call for educational justice..

Y01: 2008-2009 (NPP, DCED, Mellon Bank of NY)

We spent our initial year sounding the alarm about startling racial achievement gaps in our city and state. This included meetings with local community, political, and civic leaders along with community residents and activists. Although our focus was always the Hill District, and the Hill District Educational Council being our lead and principal source of support, a weekend retreat was convened by the Pennsylvania Legislative Black Caucus who invited me to lead a workshop on achievement gaps. Also we had meetings with then Secretary of Education Gerald Zahorchak and maintained continual contact with Representative Jake Wheatley of the Hill District. Part of this year was spent as well in identifying more than 100 low income predominately black schools in 16 metropolitan areas that had nearly closed or actually reversed racial achievement gaps. We referred to these places of achieved excellence as Dame-Dame Schools after the Adinkra of Ghana whose cultural symbol connotes 'ingenuity'—just what would be needed to eliminate racial achievement gaps.

Y02-Y03: 2009-2011 (NPP, DCED, Mellon Bank of NY)

Based on our evaluation of schools and studies on gap closure, we developed a paper which articulated six key policies and practices associated with the achievement of educational justice. We also developed an inventory, developed and evaluated by our research team which was applied initially to a small group schools that had eliminated racial achievement gaps in predominately black low income schools. In short, we found that every school that eliminated the gap scored high on each of the six policies and practices measured. Then we examined more than 20 highly regarded best practice models which we found, with one or two exceptions, to score high on the inventory we had developed. In light of these experiences, we thought we could deepen our understanding on how to promote educational justice by inviting to Pittsburgh six K-12 Dame-Dame principals whose schools had actually reversed achievement gaps in reading and math. All were principals of schools where enrollments were at least 75 percent black and a minimum of 75 percent poor. No admission tests were required at these schools, and each was located in a highly challenged urban environment. We included one charter school meeting our selection standard because of its exceptionality—this black school was among the three highest achieving schools in the state of Maryland. The short of a long story is that every Dame-Dame principal scored in the high range on most of policies and practices we had identified. As part of each principal's visit to Pittsburgh from their schools in the Houston, Dallas, Chicago, Columbus, and Baltimore (2), they provided a 2 hour public lecture, spent 3 hours with our research team, and 2 hours consultation with the principals of Miller, Vann, and Weil elementary schools of the Hill District. These principals and lead teachers also attended the 2 hour public lecture and discussion. This was the extent of our Dame-Dame intervention—no interim contacts, consultations, or development workshops—not that these things were unimportant, but we were not resourced to carry them out. The question arises, then, of whether this minimalist intervention had any effect at all. Because we did not use a formal experimental design, we do not confidently know the answer to this question, but Table 1 summarizes what we found.

Table 1. Hill District Principals Exposed to Dame-Dame Principals

Discipline	% Proficient and Advanced		Percent Increase in Proficiency	Estimated Equity Ratio		Percent Increase in Equity
	2008-2009	2010-2011		2008-2009	2010-2011	
<i>Math</i>						
Miller	37.8	51.3	35.71	47	63	34.04
Vann	42.0	64.7	54.05	54	79	46.30
Weil	41.2	59.4	37.50	52	64	23.08
<i>Reading</i>						
Miller	29.2	39.0	33.56	38	48	26.30
Vann	37.6	41.4	10.11	48	52	8.33
Weil	38.0	39.4	3.40	49	48	None

We provide proficiencies for the year before exposure (2008-2009) and at the end of two-years of exposure to Dame-Dame principals (2010-2011). We also provide an estimate of equity. Equity refers to the percentage of black over white student proficiency, the latter based on the overall white proficiency for the state. If the gap closes altogether, i.e., blacks performed at the same level of whites, Equity would be 100%. If blacks performed half as well, Equity would be 50%. An increase in Equity is therefore a movement toward gap closure. With caveats to be noted shortly, it would appear that:

- We have exceeded the initial target of 5% increase in proficiencies originally stipulated as goal; the percent proficient in reading and math range from 10 to 54.05 percent, with the exception of Weil in reading but not math;
- We have exceeded the initial target of 4% reduction in the racial achievement gap; we have moved toward equity (reduction of gaps) by 8.3 to 46.30 percent, with the exception of Weil where progress was found for math but not reading.

The caveats are several. Foremost, the school organization of Miller and Vann shifted from K-8 in 2008-2009 to K-5 in 2009-2010 which may have attenuated the performance of Weil while accentuating the performance of Miller and Vann. In our view, an undetermined amount of this organization shift is likely to explain some of the results reported in Table 1. We have, however, shown elsewhere that gains associated with the two recently reconstituted K-5 Hill District schools outperformed almost all demographically similar *and* dissimilar K-5 schools in the district (Taylor, 2011: Promoting Educational Justice in Hill District Schools: Evaluation of School Leadership Model with Seven Recommendations for Change which is available on request).

Information in Table 1 is based on data provided on the Pennsylvania Department of Education Website:

- [2009-10 School Level Math and Reading PSSA Results - School Totals](#) (Excel)
- [2007-08 School Level Math and Reading PSSA Results](#) (Excel)
- [2010-2011 State Report Card](#) (PDF)
- [2008-2009 State Report Card](#) (PDF)

II. Results of We CAN Enhancements: Y04-Y05

Enhancements	Grades	Term	Year	Results	Funders
<u>Curricular</u>					
<i>TTMath</i>					
Hill House	6-8th	5 months	2012	Math proficiency increased by 45 percent.	NPP/DCED, McAuley
Schenley Heights	6-8th	5 months	2012	Math proficiency increased by 33 percent.	NPP/DCED, McAuley
Wesley Center	6-8th	5 months	2012	Math proficiency increased by 30 percent.	NPP/DCED, McAuley
UPrep ZONE	6-8th	3 months	2013	Math proficiency increased by 30 percent.	NPP/DCED, 21 st Century
<i>Engineering Robotics</i>					
Schenley Heights	Grades 2-3	5 months	2012	Knowledge of engineering robotics principals and procedures increase 62% from pre-to-post intervention.	NPP/DCED, McAuley
Wesley Center		5 months	2012	Knowledge of engineering robotics principals and procedures increase 57% from pre-to-post intervention.	NPP/DCED, McAuley
<u>Axiological</u>					
UPrep ZONE	6-8th	10 days to 4 weeks	2013	Two cycles of intervention, one on Self-Confidence and the second on Learning Orientation,	NPP/DCED, 21 st Century

				with 75 to 80% of students improving from pre- to post-intervention. Also level of participation and proficiency attainment on TTMath trended up sharply during implementation of these cycles.	
<u>Normative</u>	Grades	Term	Year	Results	
<i>Neighborhood</i>		6 hours training and certification.	2011, 2012, and 2013	This initiative started out with the intent of training and certifying community activists and residents in how to access the internet to get information on each schools achievement profile, learn how to calculate level of inequity in neighborhood school, conduct interviews or interviews to ascertain whether policies and practices linked to educational utilize policies and practices that accelerate achievement, and access local, state, and national	NPP/DCED, McAuley

				resources committed to the cause of educational justice. The short of a long story is that it took us two years to design curriculum and corresponding exercises that yielded results we were eager to replicate. We now have trained not only activists and residents but also parents. A principal has requested training and certification—an idea we will pursue in all Hill District schools and activists—to create a community of interest around policies and practices that bring educational justice.	
<i>Schools</i>	K-8	2 years	2009-2011	See Section 1, Table 1	NPP/DCED, Mellon Bank NY

Although level of funding beyond Y03 was not sufficient to complete planned interventions for the next level of Dame-Dame implementation, we do not regret our choice of less expensive Y04-Y05 intervention strategies which actually turned out quite. Indeed we have learned much from the first five years that we factor into our updated version of We **CAN**.

III. We CAN: Updated View

Curricular, Axiological, and Normative enhancements to close racial, socioeconomic, and black male achievement gaps

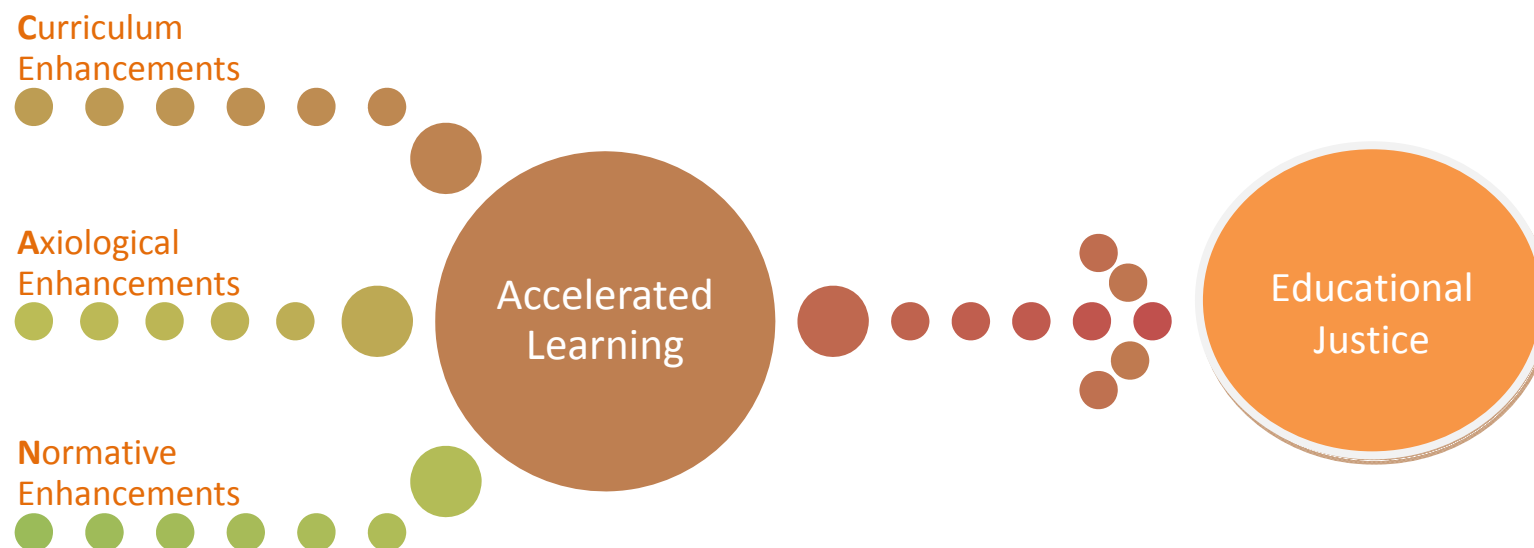
Jerome Taylor, PhD, President and Founder
Center for Family Excellence, Inc.

September 16, 2013

C: Curriculum Enhancements	Outcomes
<i>Digital Math (Think Through Math)</i>	Using an artificial intelligence platform, this program diagnoses where students are, introduces lessons designed to take students to the next level of proficiency, monitors student progress in mastering the next level, diagnoses errors made and prescribes lessons directed toward correcting these errors, and makes available a live tutor to diagnose uncorrected errors and walk students through methods leading to successful mastery. In our most recent application in an after-school program at Millions-UPrep, we found a 30 percent gain in math proficiency over three months. <i>A male participant in this program received a national award plus a check of \$1,500 which acknowledged his level of enthusiastic and effective engagement with this program.</i>
<i>Digital Reading (MindPlay Virtual Reading Coach)</i>	Using an artificial intelligence platform, this program follows analogous procedures identified for digital math in areas of reading—phonemic awareness, vocabulary, grammar and meaning, fluency, and comprehension all based on common core standards. In Lexia, the previous edition of MindPlay, published studies show that gains in reading proficiency in low-income students exposed to this program were greater than gains reported for middle-income students, just the pattern of findings required to close reading achievement gaps—our primary reason for choosing this program. This digital reading program we are adding to address challenges in reading proficiency in Hill District Schools.
<i>Engineering Robotics (Carnegie Mellon University)</i>	We have used one of the nation's best STEM applications developed at Carnegie Mellon University. This program introduces concepts of physics, engineering, computer programming, and mathematics. It is a hands-on application which requires integration of all STEM methodologies. Students learn how to build robots, how to write programming language that controls their activities, how to conduct experiments to test concepts drawn from physics and mathematics, generate and analyze charts and figures resulting from their experiments, and how to prepare written and oral reports which they share with the instructor and one another. In general we attempt to promote a spirit of discovery and innovation.

<p>A: Axiological Enhancements</p> <p>Promote the behavior expression of seven values...</p> <p><i>Love and Respect</i> <i>Interpersonal Skills</i> <i>Learning Orientation</i> <i>Self-Confidence</i> <i>Self-Persistence</i> <i>Self-Esteem</i> <i>Self-Reliance</i></p>	<ul style="list-style-type: none"> Studies indicate that interventions promoting the behavioral expression of these values increase student engagement, accelerate proficiency gains in reading and math, decrease the level of tardiness and absenteeism, reduce the number of disciplinary conferences and suspensions, and promote students' sense of safety in the school. <i>Adapted by Dr. Sekai Turner, this program was identified by former governor Tom Ridge as the best violence prevention program in Pennsylvania.</i> In the after-school program at Milliones-Uprep where Learning Orientation and Self-Confidence were implemented, we found improvement in the behavioral expression of these values in 75-80% of students following 10 days to 4 weeks of implementation. A four-stage pedagogical strategy featured in this intervention is designed to move students toward advanced proficiency levels in all disciplines. Preliminary evidence indicates that this intervention also diminishes identification with racial stereotypes internalized by students and teachers alike. Our research links the expression of these stereotypes with one or more of nine types of racial discrimination that undermine teacher expectations and student performance. We also have designed ironically rich non-intrusive methods that trigger and engage teachers' thinking about how to counter each of the nine types of racial discrimination.
<p>N: Normative Enhancements</p> <p><i>Neighborhood</i> <i>Schools</i> <i>Parents</i> <i>Students</i></p>	<p>Although we expect that specific initiatives identified under C (Curricular Enhancements) and A (Axiological Enhancements) will promote student engagement and achievement, our study of low-income predominately black schools that have nearly closed or actually reversed racial, socioeconomic, and black male achievement gaps indicate that educational justice cannot be achieved <i>and</i> maintained without changing the organizational culture of neighborhoods, schools, parents, and students in ways that enable this outcome. Essentially this entails a robust embracement of policies and practices that are respectfully and energetically supported by central administration, targeted schools, and the local community. Toward this end, we have identified strategies normalizing (N) neighborhood, school, parent, and student policies and practices that enable the achievement <i>and</i> maintenance of educational justice. In these appendixes, it will be seen that these policies and practice in each instance are measurable in ways that provide a quantifiable basis for ongoing evaluation, planning, and improvement over time. We will provide training with certification in these policies and practices to all partners supporting this normalization project.</p> <p><i>We note finally that elements of our normalization plan have been successfully implemented under the leadership of Epryl King who has shared concepts and findings associated with this initiative at Harvard University. Their local organization RAMP (Raising Achievement in Monroeville and Pitcairn) has received four local, regional, and state awards that acknowledge the success of this effort.</i></p>

Summary of Our Theory of Action for We CAN



Key Operational Assumptions

1. We CAN is a value-added reform. It does not displace existing curriculum or reforms but supplements either in ways that accelerate the achievement of educational justice.
2. We CAN requires the buy-in of all partners essential to its implementation.
3. We CAN offers training and certification opportunities of all partners buying into this initiative.
4. We CAN provides on-the-ground consultants who observe processes, offer feedback, and arrange development training opportunities directed toward the improvement and mastery of essential skills and concepts supporting the overall success of this initiative.

Key Management Tasks

1. Obtain signed buy-ins from all participating partners.
2. Identify specific persons within partnerships to receive training (e.g., advocates or parents; school principals, teachers or IT personnel).
3. Coordinate logistics—convenient times and venues—for training and certification of each participating partner.
4. Complete training and certification of all participating partners.
5. Launch implementation of We CAN with monitoring, feedback, and development training opportunities.
6. Gather and monitor process and outcome data for each participating partner.
7. Prepare process and outcome data on all participating partners for sharing at annual EJC (Educational Justice Conference).

*What Experts are Saying
about We CAN*

What Others Are Saying about We CAN: Curricular, Axiological, and Normative Enhancements that Close and Reverse Achievement Gaps

February 1, 2013
Jerome Taylor PhD

- **The Late Asa Hilliard III**, Fuller E. Callaway Professor of Urban Studies and Professor of Educational Policy Studies, Georgia State University; author of more than 250 articles and books

I have been in the game for a long time, and rarely expect to be impressed with the typical rhetoric and weak practices that pass for 'school reform'. To say that your... materials are impressive to me is an understatement. The We CAN approach sets the expectations, standards and goals at the highest levels. Conceptually, theoretically, and philosophically, the project has deep and valid roots...The reported results command attention and accolades. Congratulations on moving beyond the tired rhetoric!

- **David C. Berliner**, Former President of American Educational Research Association, the most prominent international professional organization in education; Regents' Professor, Educational Leadership and Policy Studies, Mary Lou Fulton College of Education, Arizona State University

Your proposal is terrific. It hits all the issues and I can only wish you well...

- **Margaret Beale Spencer**, Board of Overseers Professor of Education and Psychology, Graduate School of Education, University of Pennsylvania; Fellow in four divisions of the American Psychological Association; trustee of the Foundation for Child Development

This is a wonderful accomplishment!

- **James A. Middleton**, Director, Division of Curriculum and Instruction, Mary Lou Fulton College of Education, Arizona State University

Congratulations on this milestone.

- **Rodney K. Hopson**, Hillman Distinguished Professor of Education at Duquesne University

Brilliant...At a time when such excitement about closing and reducing the achievement gap in our nation's schools , we need more of these type of efforts focused on success and excellence of Black students rather than the continued focus on deficits....

- **William Cross**, Professor of Psychology, City University of New York, pioneer and renowned scholar in cultural identity theory

This is a masterful piece of work...comprehensive yet realistic and practical. Your work has always had a ring of excellence....

- **Molefi Kete Asante**, Professor and former Chair, Department of African American Studies, Temple University, where he created the first PhD program in African American Studies

Your racial achievement work is excellent. It should become a standard for the state.

- **Karl Mack**, Executive Director, National Society of Black Engineers, 23,000+ members

The National Society for Black Engineers is willing to work with you in this crisis facing all of us.

Promoting STEM Proficiencies

STEM Education in Minority Communities

Jerome Taylor, PhD
President and Founder
Center for Family Excellence, Inc.
June 29, 2012

AFTER briefly profiling racial disparities in STEM education, we examine five reasons why these disparities exist. We then introduce four solutions, each premised on our understanding of why disparities exist, that together are designed to diminish disparities in STEM education. These four solutions identify core services that will be offered under this initiative.

Disparities

In a 2010 report of the National Science Board, it was noted that after the Soviet Union beat American into space with Sputnik in 1957, there was surging national interest in educating the next generation of young innovators. This sense of urgency had faded by the 1970s such that now only 16 percent of all U.S. undergraduates major in natural science or engineering compared with 25 percent in Europe, 38 percent in South Korea, and 47 percent in China.

Yet the situation is even more startling for African-Americans:

- Black people are 12 percent of the U.S. population, yet in 2009 they received only 7 percent of all STEM bachelor's degrees, 4 percent of master's degrees, and 2 percent of PhDs, according to the National Center for Education Statistics.
- Black participation in STEM professions varies by academic field: In 2009, African-Americans received 1 percent of degrees in science technologies, and 4 percent of degrees in math and statistics and less than 2 percent in physical sciences such as chemistry and physics.

These findings are particularly startling in minority communities because market projections suggest that 70 percent of future jobs are likely to require skill sets requiring STEM competencies, an especially challenging projection since unemployment levels is a minimum of two times higher for blacks than whites. Without fixing the problem in racial STEM disparities, we will be adding to the burden of unemployment in black communities.

Reasons

1. *Opportunity.* Based on analyses and recommendations of the National Council of Teachers in Mathematics, the Common Core State Standards Initiative, the National Science Teachers Association, and the National Research Foundation, the teaching of math and science as core constructs of STEM education leaves much to be desired in classrooms across America and particularly in high poverty, predominately black urban school classrooms. Clearly, there is an opportunity learning gap which contributes to racial disparities in urban communities.
2. *Standards.* Achievement of Core Standards which prepare students for advanced proficiencies in math and science are just now being considered for statewide adoption in 29 states. If the past is any indication of future performance, the trickle down of these national core standards to urban communities will occur at a slower rate, meaning urban students who urgently need the core may be among the last to receive it, a second reason for racial disparities in STEM professions.

3. *Pedagogy*. When attainments of advanced proficiencies in math and science are examined closely, it is clear that advanced proficiencies among whites outdistance blacks by ratios of 3:1 to 6:1. Studies unveil the reason why: black relative to white students are taught more basic skills than concepts underlying these basic skill. This pedagogical distinctive lowers the likelihood of success in advanced courses in STEM components and thus progressively narrows the opportunity pipeline to STEM professions.
4. *Hardiness*. The education profession typically supports the use of rigorous curriculum and instruction. It has been noted in published research that this often has the effect of improving proficiencies among students who already are doing quite well while decreasing the proficiencies of students who are not doing so well. Our standard here is that curriculum and instruction should be hearty as well, *lifting all boats*, particularly those students who might subsequently qualify for STEM training.
5. *Discouragement*. In a 2010 Bayer Corp. survey of 1,226 women and underrepresented minority chemists and chemical engineers, 40 percent said they were discouraged from pursuing a STEM career. Racial stereotypes often play a role here: blacks are not intellectually equipped for the rigorous demands of STEM courses.

Solutions

1. **Digital Math Program.** The after-school digital math tutoring program we use (*Thinking through Math*), in our judgment, is the most sophisticated math tutoring program available. The program assesses where students are, selects instructional materials that move them where they should be, provides on-going feedback on their performance, and connects students to live math tutors when and where necessary.
 - 1.1. *Analysis*. This tutoring program with its artificial intelligence platform is based on the Common Core State Standards Initiative (Item 2 *Standards*). Results indicate that students at various levels of grade proficiency improve (Item 4, *Hardiness*), and that over time the number of students penetrating advanced proficiency increases (Item 3, *Pedagogy*).
 - 1.2. *Applications*. All applications are located in a church or organization within the neighborhood (Item 1, *Opportunity*): Schenley Heights Development Center (affiliated with Presbyterian Church), Hill House (human services organization), and Wesley Center (affiliated with A.M.E. Zion Church).

At Schenley Heights Center, sixteen (16) students have been enrolled and actively participated since October 3, 2011. For these students, average grade-level proficiency in math increased from 37.52 before intervention to an average grade-level proficiency of 50.00 following intervention five months later, these students who were below grade-level are now performing on average at grade level expectancy. **This represents a 33 percent increase in grade proficiency over this five-month period of time.**

At Hill House, 10 students were enrolled and actively participated in our digital math tutor. Here, students have moved from a pre-test proficiency of 33.30 to a post-test proficiency of 48.20, meaning that as a group they are now performing near grade-level expectancy. **This represents a 45 percent increase in grade proficiency over this five-month period of time.**

At Wesley Center Cares, although 35 were enrolled only three have actively participated in our digital math tutor. Only on these three do we have pre- and post-test scores, an average of

50.00 percent proficiency associated with pre and 65.00 percent proficiency associated with post, suggesting that these three children have moved from average to above average achievement for their grade levels. **This represents a 30 percent increase in grade proficiency over this five-month period of time.**

2. **Engineering Robotics Program.** We have used one of the nation's best STEM applications developed at Carnegie Mellon University. This program introduces concepts of physics, engineering, computer programming, and mathematics. It is a hands-on application which requires integration of all STEM methodologies. Students learn how to build robots, how to write programming language that controls their activities, how to conduct experiments to test concepts drawn from physics and mathematics, generate and analyze charts and figures resulting from their experiments, and how to prepare written and oral reports which they share with the instructor and one another in class.

- 2.1. *Analysis.* Our Engineering Robotics Program follows hand-on, interactive, concept development and experimental emphasis stressed by the National Science Teachers Association and the National Research Foundation (Item 1, *Standards*). All students are brought to high levels of mastery (Item 4, *Hardiness*), and opportunities to integrate the disciplines of science, technology, engineering, and science we expect to be linked to advanced proficiencies in math and science (Item 3, *Pedagogy*).

- 2.2. *Application.* Our Engineering Robotics Program has been implemented at the same three neighborhood sites identified for our Digital Math Program (Item 1, *Organization*). In each site we conducted pre- and post-testing on knowledge of parts, functions, and operations associated with each lesson plan.

For the five students who enrolled and actively participated at Schenley, there was a 62% increase from the pre- to post- test. At Hill House for the six students who enrolled and actively participated, there was a 29% increase from the pre- to post-test. At Wesley Cares where there were three students enrolled and actively participated, there was a 57% increase from the pre- to post-test.

3. **Parent Engagement.** We have learned that developing minority student competencies in STEM is not simply a technical matter. It involves additionally and importantly engagement of parents in recognizing the value of educational justice and ways and means of supporting its achievement through our after-school STEM initiative and in their children's classrooms. Toward this end we have developed a parent training and certification program which typically requires 4-6 hours for completion. The aim of this initiative is to engage parents deeply in discovery and actions that support accelerated learning of their children in school and after school.

- 3.1. *Analysis.* Our parent training and certification initiative functions as an antidote to *Item 5 (Discouragement)*. By getting parents involved in matters of educational justice, our expectation is that this creates at home a spirit of enthusiasm and commitment that counters discouraging attitudes and support students' engagement. For these certificants, we report results obtained from pre- to post-assessments structured around each of four instructional modules:

- 3.2. *Applications.* Training of parents and advocates has been conducted in community settings and at retreat sites around the following objectives. In general we have found as a result of this training that:

- 3.2.1. 67% of certificants have learned how to use internet resources to identify and interpret student achievement trends in their neighborhood schools.
 - 3.2.2. 67% of certificants have learned to use various metrics to estimate level of educational justice in their neighborhood schools.
 - 3.2.3. 100% of certificants indicate they are familiar with factors that accelerate learning within classroom and after school settings.
 - 3.2.4. 100% of certificants indicated they were confident about how to implement these factors within and outside the classroom. This will include implementing some of these factors in the home and supporting their children's faithful involvement in our After-School initiatives.
4. **Student Engagement.** When black and white parents and grandparents of low and middle income are asked to envision what they want their children or grandchildren to be like as adolescents and young adults, they reliably affirm one or more of seven aspirations we've referred to as Values for Life: *I want my child or grandchild to excel in Love and Respect, Interpersonal Skills, Learning Orientation, Self-Confidence, Self-Persistence, Self-Esteem, and Self-Reliance*. Teachers and clergy also affirm the importance of these values for triumphant living. Behavioral expressions of these values are associated with accelerated math and reading achievement on nationally standardized tests. These values implemented in classrooms are associated with accelerated proficiencies in reading and math and with reductions in tardiness, absenteeism, and disciplinary problems. Most critical in this application is our use of cultural icons, biographies, and sayings that provide examples of black productivity and ingenuity in a wide range of disciplines including math and science.
- 4.1. *Analysis.* This program counters *Item 5 (Discouragement)* by offering black icons, sayings, and biographies that demonstrate the accomplishments of blacks in general and blacks in math and science professions in particular.
 - 4.2. *Applications.* Our Values for Life program will be integrated into our After-School Initiatives for Digital Math and Engineering Robotics. Studies on Values for Life support the following findings:
 - 4.2.1. Pre-School. Closed developmental disparities on standardized test within less than 8 months;
 - 4.2.2. Elementary School. Associated with moderate to remarkable gains in math and reading proficiencies within one year;
 - 4.2.3. High School. Associated with 95%+ graduation rate; and
 - 4.2.4. College. Associated with a higher GPA and greater willingness to take technically demanding courses (*e.g.*, biology and calculus).



After-School Implementation of STEM in the ZONE: Milliones-UPrep Supplementary Report

Jerome Taylor, PhD
July 11, 2013

1. **Digital Think Through Math Program:** For the 32 students participating in this after-school ZONE program, math proficiencies¹ increased from 40 to 51 percent—a 30 percent increase over a three month period of time. For the school year 2011-2012, 37 percent of students at Milliones-UPrep were proficient in math, up 4.3 percent from the year before. If we use this incremental change to project math proficiency gains for 2012-2013 (actual math proficiency will not be available until fall), we estimate the year-end 2013 math proficiency would be $36 + 4.3$ or 40.3 percent which is not far removed from the 40 percent pre-intervention proficiency obtained for our ZONE after-school enrollees. One possible interpretation is that students in the ZONE increased, over a period of just three months, their math proficiency by more than 30 percent relative to students not in the ZONE. Of course this interpretation can only be confirmed when the actual math proficiency at Milliones-UPrep is released this fall. Equally important we need to evaluate actual PSSA performance of students within and outside the ZONE on 2013 math proficiencies.
 - 1.1. *Pittsburgh School District's Overall Goal of Math Proficiency for All Students, 2012-2013: 62.4 Percent.* Within a period of three months, students participating in Think Through Math were about 11 percentage points shy of this goal.
 - 1.2. *Pittsburgh School District's Goal of Math Proficiency for African American Students, 2012-2013: 50.5 Percent.* Over three months, participants in Think Through Math at the ZONE achieved this goal.
 - 1.3. *Pittsburgh School District's Goal of Math Proficiency for White Students, 2012-2013: 79.5 Percent.* Three months of participation in the ZONE's Think Through Math program moved these students to within 27.5 percentage points of closing the racial achievement gap in math. If our 2012-2013 projection of 40.3 percent proficient in math falls close to actual math proficiency reported for Milliones-UPrep, the estimated racial achievement gap here would be 39.2 percentage points. Thus we estimate that the closure rate within the ZONE might be 43 percent greater than the closure rate outside the ZONE.
 - 1.4. *National Recognition Award on June 3, 2013.* Quenton Turner, one of our Think Through Math enrollees in the ZONE, was one of six students recognized nationally for his extraordinary level of engagement in this digital math program. The founder of Think Through Math was present as well as other local and regional representatives of Think Through Math. Accompanied by his parents, relatives, and friends, he received a special certificate and a check of \$1,000 for investment in Pennsylvania's 529 Scholarship Plan.
2. **Values for Life Program:** Quenton Turner, our national awardee, was also a participant along with his peers in this program designed to increase student levels of love and respect, interpersonal skills, learning orientation, self-confidence, self-persistence, self-esteem, and self-reliance which in published studies are associated with enhanced academic engagement and accelerated learning. This program, brought to the ZONE late into the school year, was implemented in two temporally adjacent intervention cycles. Prior to each cycle, a 90-minute workshop was held for the three teachers of math, science, and literature who incorporated these programs into their classes. A consultant observed and provided feedback during each cycle, and assessments were collected from teachers prior to and just following each cycle of implementation (at post-test, teachers did not have access to their pre-test assessments). We noticed a marked increase in level of Think Through math participation and performance associated with these two cycles of intervention.
 - 2.1. *Learning Orientation:* Savvy, creative, inventive; asks questions, wants to know how things work; remembers, identifies, compares, contrasts, generalizes; sees connections between different areas of learning; enjoys helping others learn. Of the 41 students exposed to this program over a four-week period, Learning Orientation ratings increased in 80% of these students.
 - 1.1. *Self-Confidence:* Explores, probes, investigates; attentive and enthusiastic when new challenges are introduced; eager to explore new places, meet new people, or examine new ideas, daring in constructive ways; excited and upbeat about living. Of the 12 students exposed to an intensified version of this program squeezed into the last 10 days of school, Self-Confidence ratings increased in 75% of these students.

¹ Integral to Think Through Math are ongoing diagnostic assessments of math proficiency using test items that conform to both national (Common Core) and state (PSSA) standards.

Educational Justice

Empowering Communities

*Under Consideration
in the Historic Hill District of
Pittsburgh, Pennsylvania*

Three Pathways to Educational Justice (Draft 6)

Hill District Education Council (HDEC)

March 4, 2014

Pathway 1—HDEC will support justice-achieving reforms that...

1. *Broaden and deepen critical thinking skills* in ways that accelerate movement toward proficiency and advanced proficiency levels in reading, math, and science;
2. *Address directly or are tailored to address cultural and racial matters* in ways that accelerate movement toward proficiency and advanced proficiency levels in reading, math, and science;
3. *Utilize high technology strategies and programs* that accelerate movement toward proficiency and advanced proficiency levels in reading, science, technology, engineering, and math;
4. *Promote and enable values, beliefs, and expectations* in ways that accelerate movement toward proficiency and advanced proficiency levels in reading, math, and science; and
5. *Support and enable norms*—student, family, community, schools, and district—that promote and sustain movement toward our goal of educational justice: elimination of racial, socioeconomic, and gender-specific achievement gaps in each of our neighborhood schools; and
6. *Include residual reforms and programs (e.g., arts, music, and foreign language initiatives)*, those not captured by the first five categories, which show promise or evidence of accelerated movement toward proficiency and advanced proficiency levels in reading, math, and science. Allowing these reforms and programs acknowledges our expectation that 1-5 are not the only pathways to justice—our shared and sacred destination where all children drink from the same fountain of opportunity.

Pathway 2—HDEC will establish a Brain Trust of experts who will...

1. Evaluate the justice potential of existing or proposed reforms or programs referred by its Executive Committee (EC). Although The Brain Trust may refer reforms for consideration by EC, The Brain Trust will evaluate only those reforms approved by EC.
2. Rely on interviews with reform or program designers or representatives and on their theory of action and available evidence in formulating our recommendation on justice potential.
3. Unless EC requests an expedited review, The Brain Trust will provide within 2-to-4 weeks a written report on the methods used in formulating a recommendation of *support without conditions*, *support with conditions*, and *nonsupport with reasons*. In cases where members of The Trust or EC are directly or indirectly connected with the reform or program under review, they may be involved in presenting the theory of action and relevant research linked to that reform or program, but they will not be

permitted to participate in deliberations that shape our final recommendation to EC. Where this situation exists, it will be specifically identified along with recusal documentation in the report sent to EC.

4. Defer to EC decisions on any and all actions to be taken on recommendations made by The Brain Trust (see **Pathway 3**, last paragraph).
5. Agree to present our methods and findings, at the request of EC, to any of the entities, venues, or persons identified in **Pathway 3**, last paragraph.
6. Document and disseminate through professional presentations and publications barriers encountered and results associated with the work of The Brain Trust and EC with its membership and community partners.

Pathway 3—HDEC will manage the agenda of educational justice by

establishing five Working Committees and an Executive Committee:

1. *District Committee*, charged with attending and making representation at School Board Meetings as well as arranging information gathering meetings with district administrators or Board Members around our educational justice agenda;
2. *Community Committee*, charged with working with churches and organizations in supporting our goal of educational justice;
3. *School Committee*, charged with periodic visits to principals and classrooms to examine the extent to which policies and practices that accelerate student proficiencies are being implemented;
4. *Family Committee*, charged with working with parents, relatives, and surrogates around methods for accelerating student proficiencies;
5. *Student Committee*, charged with supporting ways and means of garnering and deepening student support for our goal which becomes their goal—educational justice;
6. *Executive Committee (EC)*, which in addition to its normal activities, will decide what to do about recommendations made by the Brain Trust. The decisions of this committee, which will include the chairs of the first five committees, might include but by no means be limited to:
 - *Multi-level Conversations and Negotiations* with School District administrators or School Board members in support of justice-achieving reforms or programs;
 - *Press Releases* that profile justice achieving reforms or programs and identifies barriers to overcome in institutionalizing these initiatives;
 - *Community Forums* where attributes of justice-achieving reforms are presented and discussed alongside justice-neutral and justice-reversing reforms—the aim being to help residents make informed decisions on reforms likely to bring educational justice to our children;
 - *Social Actions* designed to promote and secure adoption and institutionalization of justice-achieving reforms and programs.

Educational Justice

Empowering the Nation

Audacious Hope: Closing and Reversing Achievement Gaps¹ Jerome Taylor, PhD²

IS IT POSSIBLE TO CLOSE OR REVERSE RACIAL AND SOCIOECONOMIC ACHIEVEMENT GAPS in places least expected—predominately black low-income schools? For black males within these settings, is it possible to bring their performance to levels that match or exceed their white male counterparts in the district or state? In this commentary, I'm sharing from our research and development activities seven strategies that together offer high promise of closing or reversing racial, socioeconomic, and black male gender gaps in high-need urban school settings.

1. **Look Inside the Box.** Current reforms feature a wide range of outside-the-box interventions: cognitive, affective, social, cultural, economic, pedagogical, and curriculum enhancements along with pre-professional training, professional development workshops, and high-stakes entrepreneurial models. Although most of these reforms have documented positive incremental change, none has consistently closed or reversed racial, socioeconomic, or black male gender gaps in public school settings. From the perspective of black families and communities, all these models have failed to deliver educational justice to their children. Instead of looking outside these communities for justice, why not look inside these communities for solutions? In 2007, we identified 107 K-12 public schools located in 16 metropolitan areas which had nearly closed or actually reversed racial, socioeconomic, and black male gender gaps. Based on state assessment results, we sorted these predominately black ($\geq 75\%$) low-income ($\geq 75\%$) schools into three categories of achievement excellence: *Gold*—a least 85% of students were proficient in reading *and* math; *Silver*—at least 75% of students were proficient in reading *and* math; and *Bronze*—at least 75% of students were proficient in reading *or* math. Although fewer than 5% of these inside-the-box schools have received our nation's highest Blue Ribbon Award for exemplary achievement, we nonetheless recommend careful study of what these high-need schools do to close and reverse racial, socioeconomic, and black male gender gaps in student achievement. Like lilies of the field sporting their glorious bloom in compromised environments, these inside-the-box schools produce excellence under adverse circumstances—in high poverty household and neighborhood environments with elevated levels of teenage pregnancy, gang formation, juvenile delinquency, drugs and alcohol, and black-on-black crime. We must discover and embrace the secret of how they do it.
2. **Walk the Line.** In *Walking in Circles*, my deceased friend and colleague Barbara Sizemore talked about the rise and fall of commendable reforms in black communities. In Pittsburgh, the School Improvement Project produced impressive results in closing racial achievement gaps. Enabled by soft rather than district funding, gap closure in these schools ended as soft money was discontinued. At M. Hall Stanton in Philadelphia, racial gap closure in this predominately black low-income elementary school was followed by a 30 percentage plunge in proficiencies the year following resignation of its principal. In Biloxi, MS where the predominately black low-income Nichols Elementary ranked 16th out of 432 elementary schools in the state, a vote was taken by the board of education to close rather than bus white students to this school. Simon and Garfunkel's 'slip sliding away...the nearer your destination, the more you slip sliding away' is a lyrical rendering of Sizemore's thesis. From our experience, most existing reforms fail to address three challenges that undermine a direct line to justice. *First, most available reforms fail to accommodate the reality of high teacher turnover and absenteeism often characterizing urban schools.* Our approach has been to supplement these classrooms with online access to computerized programs that have demonstrated accelerative effects on reading and math achievement. Since evidence indicates that students access these resources before and after school and on weekends, this strategy extends on-task instruction without extending the school day which often is problematic in public school settings. *Second, existing reforms typically fail to address the problem too often shared by urban teachers and students: low expectations—the bane of gap closure and reversal.* Here, we implement a schoolwide intervention that promotes the behavioral expression of seven values: love and respect, interpersonal skills, learning orientation, self-confidence, self-persistence, self-esteem, and self-reliance. We find that these culturally infused values lift the expectation and corresponding engagement of students and teachers alike. *Third, existing educational reforms almost uniformly fail to rally and empower local stakeholders around an actionable agenda of educational justice.* We provide training and certification in (a) award-winning strategies for organizing families, churches, organizations, businesses, elected officials, advocacy groups, and local activist around the shared goal of justice attainment and maintenance; (b) methods for normalizing the value of justice attainment and maintenance among students, within schools, and across service and economic institutions serving

¹ An abbreviated version was shared on February 14, 2011 at the *Black History Month Roundtable Discussion on the Education Achievement Gap*. Held in Senate Room 8(B), East Wing of the Pennsylvania Capitol Complex in Harrisburg, this roundtable was convened by Representative Jake Wheatley (19th Legislative District) who is a standing member of the House Education Committee.

² Chair, Department of Africana Studies and Convener, Educational Justice Project, University of Pittsburgh; President and Founder, Center for Family Excellence, Inc., Pittsburgh, PA. (taylor@pitt.edu).

target neighborhoods and communities; (c) procedures for equipping school district administrators, school board members, neighborhood principals and teachers, and local families, churches, organizations, and activists with knowledge of factors that promote justice attainment and maintenance; and (d) actionable plans for accelerating the attainment of educational justice in target neighborhoods and schools. Walking the line, then, entails countering negative effects of teacher turnover and absenteeism, raising the expectation and engagement of students and teachers, and equipping educational stakeholders with perspective, knowledge, and plans that bring justice to target schools and neighborhoods.

3. **Change the Subject.** For three reasons, we need to change the subject from ‘gap narrowing’ to ‘justice achieving and maintaining’. First, uncritical application of our gold standard of evaluation is flawed. Typically the reform industry uses statistical models which evaluate whether significant gains evaluated on demographically similar groups favor students receiving vs. those not receiving the intervention. If there is broad evidence that this is so, the reformer receives national recognition along with the reform itself which may be added to the U.S. Department of Education’s list of *What Works*. However, we are unaware of any black parent or community that would be satisfied with the conclusion of studies using the gold standard: *We have found statistically significant evidence that Reform X enhances achievement of black poor students relative to black poor students not exposed to Reform X*. We are persuaded that black parents and communities are more interested in the question of justice: To what extent does my poor black son’s outperforming another poor black child get him a job in the competitive market place or allow him to support a family in this day and age? To invest in the stock market or his own retirement? To bequeath wealth to his children and his children’s children? To build businesses that benefit his community? From these perspectives *What Works* for the U.S. Department of Education doesn’t work in the black community because the gold standard as currently appropriated is not sufficiently responsive to the call of black families and communities for educational justice. Second, and related to the first, there is an urgent need to develop new metrics of justice attainment and maintenance. Toward this end we are developing a system of ten metrics which estimate levels of systemic oppression (2), justice attainment (6), justice maintenance (1), and structural freedom (1). Standard use of these or alternative metrics, which provide urgently needed augmentation to gold standard evaluations, may prove critical in potentiating the nation’s march toward educational justice. Third, our evaluation and reform industries need to be commissioned to seek justice—not ‘gap narrowing’. Federally sponsored commissioning along these lines would lift the bar and challenge our community of reformers and evaluators to reach it. This call to a higher standard we expect would unleash creative and innovative proposals on how to solve what some have regarded as the most urgent challenge of the 21st Century—achieving and maintaining educational justice. Until this bar is lifted, our evaluation and reform industries run the risk of contributing unwittingly to the soft bigotry of low expectations which fails to honor and accommodate the black community’s higher call for justice.
4. **Turn Up the Lights.** In the usual appropriation, implementation of educational reforms are steeply hierarchical. The intellectual center is the national or regional headquarters of Reform X which delivers its ‘goods’ to schools that participates either voluntarily or involuntarily. Under this arrangement, each school is barely if at all aware of or connected to other participating schools. In consequence creative solutions to problems encountered in one school are seldom known to other schools in this hierarchical network as the pattern of communication is from headquarters to school and not school to school. Case studies of the auto industry and lab research on collective intelligence indicate that human intelligence or problem solving capacity is appreciably higher in open systems where communications flow freely among differently positioned elements. Enabling multilateral communications among these constituent elements is like turning up the light: solutions are better because the collective sees better—more comprehensive analysis of problems and their solutions. Our recommendation is that we turn up the lights by creating virtual interactive learning communities that are inclusive of Reformer X and associated principals, teachers, students, families, and communities (churches, organizations, and activists) committed to educational justice attainment and maintenance. By clicking on the dashboard for each of the five constituents identified, three sub-content areas would be accessible: **Display** (e.g., reformer posts summaries on justice achieving and maintaining schools; principals present summaries of achievement patterns for the school; teachers share successful lesson plans for particularly challenging standards; students post science, math, language arts, or civic projects; families enter notes on how they were able to motivate their child’s interest in academics; community posts meetings that were successful efforts in mobilizing church, organization, and family support of achievement excellence); **Instruction** (e.g., Reformer X posts video clips or written instruction on how to implement a particularly challenging lesson plan; principal notes strategies used to accelerate academic achievement; teacher notes successful effort in using differentiated instruction; families share notes on how they were able to support successful completion of homework assignments; community posts notes on training initiatives that were successful in mobilizing church, organizational, and family support of educational justice); and **Chat Room** (each of the five constituent elements can post problems for response by persons or entities that have found solutions to similar problems). Additionally, there will be a **Consultation** sub-content area where school personnel can request technical assistance directly from the reformer. The virtual interactive community brings together the major stakeholders whose investment is necessary for achieving and maintaining educational justice in unlikely places—predominantly black low-income schools. The featured multilateral and interactive pattern of communication turns up the light necessary to see and resolve problems that fall beyond the pale of reformers alone. Defining intelligence as the capacity to adapt to current and changing environments, we expect that virtual communities will add IQ points to the reform industry for the benefit of high-need students and the nation as a whole.

5. **Detoxify the Headwater.** Think of a headwater as a large body of water (federal or state policies and practices) which flows into tributaries (community policy and practices) which feed smaller bodies of water called rivulets (neighborhood norms and practices). In this relatively closed hydrologic system, toxicities in the headwater flow out to tributaries and rivulets which return remaining toxicities to the headwater. There are three ways of removing toxicities from this system: (a) immediately clearing out toxicities in the headwater itself; (b) simultaneously clearing out toxicities from the tributaries and rivulets that flow back into the headwater; and (c) a combination of (a) and (b). The sociotoxins to which we refer issue from nearly 400 years of racial animus toward blacks in America (1619-2011). Although we acknowledge and commend progress that has been made in detoxifying the headwater and its tributaries and rivulets, this work is far from done. The breadth of this challenge is suggested from studies of millions of Americans who have taken the implicit racial attitudes test. Findings indicate that about 80 percent of whites and almost 50 percent of blacks unconsciously harbor anti-black and pro-white racial attitudes—even among those who self-identified as social activists or bias free. The depth of this challenge is suggested from research that reveals America has not outlived its historical construction of blacks as ‘animal’ or ‘ape-like’—even among our brightest students attending the nation’s most prestigious universities. In these places, this ‘ape-like’ construction of today’s blacks crosses racial, ethnic, and gender lines: male and female whites, Asian, Latino, Hispanic, Asian American, African American, and mixed-race American college students. The gist of these results is that when they saw ‘black’ their unconscious minds registered ‘ape-like’ and when they saw ‘ape-like’ their unconscious minds registered ‘black’. Among the many negative effects documented for implicit racial attitudes, we list results of recent research that indicates implicit (unconscious) but not explicit (conscious) stereotypes negatively affect the academic performance of minority students. What can be done? We offer four recommendations: (a) Detoxify the Headwater and Tributaries—*coordinated* national, state, and community conversations on how policies can be changed to promote educational justice attainment and maintenance; (b) Detoxify the Rivulets—*coordinated* research and development studies on practices that achieve and maintain educational justice in high-need urban schools; (c) Provide Dedicated State and Federal Funding for the first two recommendations; and (d) Convene a Special White House Conference to explore, support, enable, and institutionalize recommendations (a) through (c).
6. **Detoxify the Infected.** What happens when blacks living near the headstream or its tributaries and rivulets begin to embrace racist views siphoned from these sociotoxic streams? In particular, what if they should come to believe that blacks are ‘animals’ which ‘explains’ why they are mentally defective and physically gifted? Up to 50 percent of blacks present with this culturally alienated view which is linked empirically to higher risks of poor mental, physical, social, and academic health. What do we recommend to detoxify these infected children and youths? First we utilized our culturally infused values program identified under Recommendation 2. Second, we use cultural infusion strategies in teaching the primary disciplines of math and reading. And third, we use a four-step pedagogical strategy for accelerating students’ movement from basic skills to advanced proficiency in the disciplines of math and reading. Together these three methods are designed planfully to counter racial stereotypes about blacks. Failure to acknowledge and heal these infections using identified or alternative means may well contribute to black students’ academic disengagement and underachievement.
7. **Prevent Retoxification.** Becoming aware of the structure of racial stereotypes, the ways these stereotypes play out in public policies and practices and particularly in everyday personal, social, organizational, and institutional life, and methods that successfully counter, attenuate, or prevent the destructive unfolding of racial stereotypes will go a long way toward minimizing if not preventing toxicity in the headwater and its tributaries and rivulets. Toward these ends, we have developed a three-part training and certification program for principals and instructional leaders as well as for executive leadership in other institutional and organizational settings.

Recommendations 1-7 capture our approach to educational justice attainment and maintenance. Together, these recommendations are considered necessary and sufficient for bringing about a paradigm shift in educational policies and practices that would upend nearly 400 years of sustained injustice. The writer is reminded here of ionization processes where certain levels and types of external energy are required to remove an electron from its accustomed orbit in an atom. As this happens there is a foundational shift in ‘identity’—from atom to ion. By analogy, multiple types and sources of energy (Recommendations 1 through 7) are simultaneously mobilized and coordinated and directed vigorously and uncompromisingly to effect a foundational shift in our nation’s identity—from unreconciled (freedom with liberty to some) to reconciled (freedom with liberty to all), an orbital transformation toward *a more perfect union* (Preamble to U.S. Constitution). We therefore expect that uncompromising implementation of Recommendations 1-7 will undergird and sustain our project of Audacious Hope for America. Believing that *iron sharpens iron*, we welcome opportunities to compare and contrast effects of our model with other reforms designed to bring justice to high-need children in urban America. The children of these schools along with the communities where they live would be primary benefactors of such comparative studies, and our nation as well would benefit by improving its position and reputation within the international marketplace.

