



**National
Center** for the
**Development
of Boys**

Understanding Boys in the 21st Century

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with Michael Gurian, Author of *The Wonder of Boys* and *Saving Our Sons*

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I. Boys in Crisis

I have been a teacher, coach, school administrator, and parent of boys for 25 years. In my “Understanding Boys” lectures at conferences, I use the term “objects moving through space” to describe our sons. To me, that’s the best description I can give for how boys learn and how they behave, whether in the classroom, in the family, or in the community. Boys are—or we hope they will be—constantly moving, living, feeling challenged, exploring. Our job as adults is to help them grow into responsible, educated, and loving men by feeling safe to be who they are.

Some boys in America are doing well. Some males rise to the top of corporations and government. Some succeed as fathers, husbands, and partners. Some feel the hope that comes from chasing, and often fulfilling, their dreams. Some males, no matter the injustice, adversity, or absences they face, cannot be stopped. They will move and move others. Millions of males are succeeding every day.

But the terrible secret in American society is also the terrible loss of millions of males. These males are struggling to survive or thrive in such desperate ways we must pause to notice—and work toward solutions. Life now is not what it was 50 or a 100 years ago. In 21st-Century America, boys as a group are in significant trouble. While some male demographics are in worse shape than others, male distress itself crosses races and diverse boundaries. Not only are many boys of color in significant distress—often becoming a statistic, adding to the early mortality rates—but millions of white boys, especially in depressed rural and working class areas, are also feeling hopeless. Because media and academic institutions mainly focus on “male privilege” and “gender stereotypes” as the primary issues facing boys’ development, we miss the tens of millions of males who don’t fit either paradigm. Their issues go far deeper.

Real time statistics are sobering.

In education:

- The gap of boys in reading and literacy is three times worse than the well-known girls’ gap in math/science.
- In each demographic, boys are behind girls. For instance, boys of color are behind girls of color in grades, test scores, and social-emotional development; similarly, Native American and Latino boys are behind same-ethnic girls. Even white boys are behind white girls in markers for mental health (suicide, brain disorders), educational success (test scores, grades, behavior) and normal social-emotional development.
- The use of mood managing drugs for boys has increased twenty-fold over the past two decades. In fact, in many affluent areas, one out of three boys are on medications for ADD or ADHD.
- Eighty percent to 90 percent of all school disciplinary problems are attributed to boys, including pre-

school where boys are four times more likely than girls to be suspended or expelled.

- Two-thirds of all Ds and Fs given in high schools go to boys but less than half the As.
- More than 65 percent of all high school dropouts are boys. By the time boys reach seventh grade, many have already begun their exodus from school.
- Over the past generation, the percentage of boys in higher education has moved from close to 60 to the mid-40s, and the percentage of young men graduating from college has dropped even more, to 41 percent.

In part because of educational issues, there is a significant chance that an American male will not fare well in the 21st Century:

- More American males are currently in prison than at any time in the history of our nation and, per capita, more are incarcerated in America than in any other country.
- Boys are twice as likely as girls to be victims of violence in America but in certain age groups, the ratio is 6 to 1. For instance, among adolescent children, six males die from violence for every female. Boys of color in the inner city are considered “highly likely” to die from violent causes by or about age 25—the end of male adolescence.
- More American adult males are likely to express overall feelings of being “unhappy,” and more are clinically depressed than in any past generation.
- Boys are four times more likely than girls to take their own lives, and the suicide rate among boys is growing. Last year, approximately 30,000 males in America took their own lives.
- More boys and men will live in poverty in the next decade, and more will be absent when it comes to raising their own children, creating a sad cycle of repeated distress.
- In 2014, a landmark study at Princeton University discovered that safety nets in existence for girls and young women do not exist for boys and men, pushing them farther into isolation and danger.
- Issues faced by American boys are also faced by males around the world. In 2015, the World Health Organization published a major study of men’s and boys’ health worldwide. In it the study’s authors—from Europe, the U.S. and Asia—provided statistics and analysis from all continents, including the most comprehensive health study worldwide to date, the Global Burden of Disease Study led by the Institute for Health Metrics and Evaluation. The WHO study concluded: “In most parts of the world, health outcomes among boys and men continue to be substantially worse than among girls and women. Yet this gender-based disparity in health has received little national, regional or global acknowledgement or attention from health policy-makers or health-care providers. Including both women and men in efforts to reduce gender inequalities in health as part of the post-2015 sustainable development agenda would improve everyone’s health and well-being.”

The final statement of the study is crucial. While males are behind females in health outcomes, solutions involve all of us, together. Every issue facing boys and men also impacts women and children, making the consequences of the boy crisis a multi-gender and multi-generational one. Every week we have new headlines of violence and pain that has male distress as a root cause.

My colleague, Michael Gurian, co-author of this White Paper, has emerged as one of the most prominent and respected researchers into boys' issues; he did not mince any words when he opened his latest book, *Saving Our Sons*, with this observation:

In thirty years of working with children, I have never been more worried than I am right now for our sons. Some boys are doing very well, but millions are disappearing into violence, imprisonment, social withdrawal, listlessness, virtual worlds, and real life self-destruction. If we don't end this national pattern, our boys and young men will become increasingly destructive, both to others and themselves, because nearly every social problem we face in our civilization today – unemployment, income equality, incarceration rates, religious extremism, domestic abuse, mental illness, health care inequities, and violence – intersects in some way with the state of boyhood in America (2017, p. 9).

Fortunately, more and more educators, sociologists, community and national leaders, and others have begun to sound the alarm about how we raise, educate, and nurture our sons. That focus has given rise to theories and strategies regarding what we can do differently—as individuals and as parents—to improve the chances for males to move from boyhood into adulthood successfully, so that our young males can become positive forces of good in our society.

Many of us are aware of the broad spectrum of male distress, and we are asking: How do we as parents, teachers, and community leaders move our boys in the direction of their most lofty aspirations for service and purpose? Gurian addresses the issue directly in *Saving Our Sons* by arguing that it is now time for a social revolution on behalf of boys. This revolution, he says, will require us to see what is really happening in male development.

The National Center for the Development of Boys was formed in 2016 to be a catalyst of this social revolution. Most of our Board and team, like myself and Dr. Gurian, are parents of daughters and advocates for girls and women. This fact is important to our place in the social dialogue because all of us at the Center take very seriously the idea of gender equality. However, our research indicates that our culture has reached a turning

point: the term “gender equal” can no longer mean “Girls are always behind boys and boys are always more privileged than girls.” It must now mean: “There are areas where girls are doing well and areas where they are not; equally so, there are areas where boys are doing well and many areas, as statistics and real life clearly indicate, where boys are not.”

The Center works to catalyze fresh approaches to the issues, as well as tactical and strategic programs that lead to immediate solutions. Our research, shared in this White Paper, indicates that regardless of where in the nation our boys are located—whether they are poor or rich, white or minorities, in successful or struggling schools—discernible areas of male need have clearly emerged in the new millennium.

While this paper is meant mainly for use by parents, community members and lay leaders, we have also written it with academic rigor. And while it is not meant to answer all the questions or bring each question to an absolute conclusion, it will provide immediately applicable research and tools. In total, we hope this document will help you to move forward your own part of our passionate national conversation on how to save our sons.

II. Understanding the Male Brain

The first step in what Dr. Gurian calls a “revolution” is an understanding of who boys really are. While I describe boys as “objects moving through space,” another educator friend of mine more bluntly described how boys learn and grow: “by crashing into things, whether they are physical objects, ideas, or authority figures.” That is motion, indeed! When you are constantly in motion, you will likely crash into rules, boundaries and sometimes each other. But you also crash into ideas.

Thanks to a lot of good research over the past three decades, we have a much better understanding of boys’ brains, including how those brains differ from girls’ brains. That understanding has become foundational, in the Center’s view, to how we can shape a new discussion of how to best teach and reach both genders. Because our academic schools of education rarely teach this material in their teacher training, our nation’s schools, especially in the communities with the worst data points for academic and behavioral achievement, potentially face systemic shortcomings in their education of both boys and girls. Generally, the boys fare worse in these schools, and all the data points sag because of that. Once teachers and staff are trained in how the male brain learns and grows, innovation almost always follows, and test scores and other data points rise.

Why Boys’ Brains Are Different

Training that succeeds in schools and elsewhere involves a look into the male brain. In the early stages of development, human embryos differentiate into male and female beginning around the fourth week of gestation. The male embryo (XY) begins to drop its testicles in utero and thus receives constant new surges of testosterone through body and brain, at far higher rates than the female brain. Testosterone in utero affects the physical anatomy of the child—what biologically makes it a boy or girl on a sonogram then after birth—as well as the differentiation of male and female brains both in utero and throughout the lifespan.

White and Gray Matter Activity

One profound difference between the male and female brain is the “white matter” and “gray matter” activity difference. Boys’ brains develop more emphasis on “gray matter activity” than female brains tend to do. The difference can include up to seven times more gray matter activity in the male brain than the female. Girls’ brains develop with close to 10 times more white matter activity than boys’ brains.

As Gurian has put it, “White matter activity tends to send signals throughout the brain instantaneously while gray matter activity tends to localize primary brain function into specific areas and territories in the brain.” Both

males and females have white and gray matter, just as both males and females have estrogen and testosterone, but our brains are structured to process life-experience differently with each of these elements in tow. Because of increased testosterone, the male brain comes out of gestation localizing more of its brain activity in specific gray matter territories while the female brain tends to connect more dots between many various areas more quickly in its enhanced white matter communication.

This creates a different learning, living, and loving brain—boys and girls develop distinctively different ways of processing information and dealing with other people and other objects. While not every brain is exactly alike, and while the percentages of “white matter” and “gray matter” activity vary from individual to individual (with roughly 20 percent of boys and girls always considered by researchers as exceptions that prove the rule), gender differences in the brain are robust and must be integrated into all teacher, parent, and professional understanding of boys and girls.

Right and Left Brain Functions

A crucial reason is this: The female brain has structures for processing words (reading, writing, and speaking) on both sides of the brain while the male brain processes words only or mainly on the left side of the brain. Instead of word centers on the right side, the male brain emphasizes gray matter areas for spatial/mechanical and visual/graphic reasoning. Enhanced white matter activity in the female brain, especially in the frontal lobe, doubles down on the increased number of word centers by connecting those centers to feeling/sensing centers of the brain instantaneously. Thus, the female brain tends to use more language to express feelings, describe things, and regulate impulses at an earlier age than boys and throughout the lifespan.

Here’s an example. If I say “sun” and ask a three-year-old girl to respond, she likely will say “moon,” or “stars” or “sky,” things that relate to the sun and are associated with the likeness of the sun. Her white matter and verbal-sensorial abilities kick into immediate gear to answer the question with these associations and connections.

A two-year-old boy, on the other hand, might reply “hot,” or “big,” providing me with the associations of “sun” inside the proximity of the gray matter territory in his brain. He may give me, thus, the physical or mechanical appearances of the sun, but not the likeness of the sun reflected in various other parts of his brain.

This “proximal association” of the word to the gray matter territory is not a flaw (neither female nor male brain is inferior or superior); rather, it is a part of who he is. The male brain, even in early childhood, is often more

focused on processing mechanical matters rather than cross-brain verbal or emotional matters in words. As boys' development continues and their cerebellum (the "doing" center of the brain) grows larger and more active, on average, than a girl's, they translate their mechanical perspective into movement, action, and exploration—objects moving through space.

"Because teachers, parents, and professionals do not get significant training in this kind of male/female brain research," says Gurian, "we inadvertently create systems that harm boys' development. We favor female cognitive and social-emotional styles over males—even more, we punish males for their own brain type without realizing that we are doing it. Males are just as loving and smart as females, but their social-emotional and cognitive assets often manifest in different ways and need different training and structure in our social systems."

The Male Brain is Not Defective

These inadvertent systems contribute to the trouble that boys tend to find themselves in—a normal male brain appears defective when it doesn't conform to an ill-informed expectation of general human behavior. For instance, without understanding the assets of the male brain, many schools, social programs, early childhood centers, and family-supportive agencies create zero tolerance policies for physical touch that start boys onto the school-to-prison pipeline very early. They avoid dealing with the fact that, by nature, boys move, touch, bump, aggress, and often do not use words the way some people think they should. As the psychologist Michael Thompson, author of *Raising Cain*, has noted: millions of males are sent to the assistant principal's office then moved to suspension and expulsion because we do not understand them. Some boys, of course, are misbehaving and need discipline, but after 30 years of research in schools worldwide, Thompson concluded: "Girl behavior is the gold standard in schools. Boys are treated like defective girls."

Those of us working in educational and other child-nurturing systems are not malicious or neglectful people, but we do lack training in the male brain, as do most child advocates and most academics and legislators who help support or create educational policy. Thus, we have inadvertently developed national practices and procedures to reflect what Gurian calls "hyper-emphasis on the 'use-your-words' strategy for nearly every social interaction." We've done this without realizing that, while "use your words" is a good strategy:

- 1) It is only one of eight strategies that the human brain, especially the male brain, needs for successful social-emotional and cognitive development; and
- 2) It creates a great deal of male failure in comparison to female success not just in school but throughout the lifespan.

Words matter, of course—but objects moving through space matter just as much to the brain. Throwing a ball to a child can be just as good for developing the thinking and feeling functions of the brain as talking is. The Center team has examined more than 3,000 neural studies and concluded that talking with boys is and always will be a good strategy for their social-emotional and cognitive success, but it is simply not enough. We must rethink our systemic and ideological emphasis on words above all else, especially among young children, if we are to help boys and girls succeed.

What Do Boys Hear?

Another crucial male/female brain difference involves the way all five senses work in the brain. Male hearing, especially in the very early years, is up to seven times less sensitive than female hearing, not just with volume, but also with tones. And the female brain generally processes more subtly of stimulation in all the senses than the male. Add this to the mix of white/gray matter differences and verbal/spatial differences, you can see further reason to look carefully at education and parenting techniques for boys.

If, for instance, you are a teacher using a soft voice, the girls in your classroom might miss some of what you are saying but at least catch the important ones; many boys, however, will not hear enough of your words, tones, and emphasis on topics to pay full attention and to fully succeed in note-taking, test or grades achievement, project development, or homework completion.

In the early grades, an often-used admonition is, “Joey, you’re not paying attention.” He may well not be, but he is also not hearing us the way girls hear us, and we just did not realize it. If we move Joey to the front of the room or talk louder or constantly move around the classroom ourselves while we talk, we use Joey’s male brain as a window into success, rather than failure.

Brain Chemistry and Bonding

To learn, grow, and succeed in life, brain chemistry must work with us, not against us. Testosterone, oxytocin, vasopressin, serotonin, and dopamine are all chemicals that help us bond with one another—they help a child attach to a teacher, parent, mentor, sibling, friend, or teammate. Through this kind of neuro-chemical bonding and attachment, we learn and grow. If we do not bond or if our attachment is incomplete or ineffective, we may fail in learning, love, and life.

Not surprisingly, the male brain processes all these chemicals somewhat differently than the female brain. Try this experiment wherever you are: Give a three-year-old girl three dolls you bought at the store that morning

and notice what happens. By evening, those dolls will likely have names. She will tend to find a friend, get some clothes, and make the doll a part of the family, veterinary hospital, or school or other game she is playing with all of her dolls.

Do the same with a boy: Give him three dolls. Boys may do some of what the girls do, of course, but generally boys will also be more likely to bang the dolls together, throw them into a small plastic basketball hoop attached to the door, take the arm off to find out how it is able to move, or put the doll into an active (and often competitive/aggressive) fantasy play game (Lord of the Rings, Chronicles of Narnia, or some other war/battle scenario).

The female brain, upon seeing and touching the dolls, increased its flow of oxytocin (a bonding chemical) while the male brain, upon seeing and touching the dolls is less likely to process all that oxytocin. Meanwhile, the female brain more generally connects its serotonin and dopamine (feel-good chemicals) with the verbal-emotive contact with the dolls—naming them and creating bonding systems with them (family, hospital, school) on both sides of the brain. The male brain connects serotonin and dopamine with some verbal-emotive bonding on the left side of the brain but also explodes with spatial-mechanical play on the right side of the brain, using the dolls, more of the time, as objects moving through space.

Vasopressin, a male bonding and territoriality chemical, also gets involved, driving males towards more fantasy/aggression and “war” play. Moms often tell me, “My son will even make a twig or tree branch into a sword.” These moms are seeing the brain at work: Through this kind of play, the male brain is building neural pathways for cognitive, social-emotional, and personal development, but not in quite the same way as the female brain is doing. For the male brain, the doll is a plastic, spatial object about which he wonders: “What can it do and not do in the world of action?” He is not wondering, as frequently as his sister, how the plastic object fits into the verbal-emotive field of relationship.

Practicing Citizen Science in Your Communities

The research that we at the National Center have done with boys and young men can be replicated and even altered by your own research at home, in your school, in your community or organization. You can become what Gurian and other brain researchers call “citizen scientists” by checking data and applicability of the science in your own experiments and observations with boys and girls.

To start, you can give five or ten young boys and five or ten young girls the same object—perhaps a toy truck or a doll, then observe what they do with the object in various settings and relationships; you can record how boys and girls describe the object, define it, express feelings about it, give it meaning, and use it in learning and life.

At the National Center, we've often discussed these sorts of observations. We've seen teachers ask boys to draw a car and noticed that boys often draw a car in motion, dirt flying out the back tires, wind blowing across the top. Often there's no person in it, but if there is a person, it is likely the boy himself in motion or someone else focused on the motion of the car.

On the other hand, we've observed girls more often drawing a picture of a car parked in front of a house, with the family inside—less action and more relationship for her, more action and less relationship for him. This observation in citizen science has been verified by researchers such as neuroscientist Shelley Taylor, author of *The Tending Instinct*. For neural reasons that we noted earlier (white matter/gray matter, testosterone/oxytocin), males and females often differentiate their emphasis on relationship and action.

Personal examples can become a powerful part of your citizen science. Here is one from my own learning-by-crashing-into-walls model. When I was young, I saw a cartoon of a character falling over a cliff. In the cartoon, he calmly and confidently opened his umbrella to float softly to the ground. While, thankfully, I didn't jump off a cliff, I did jump off a garage roof. The umbrella didn't help me at all as I lay on the ground crying! There wasn't a girl around me who was driven to do something so physically and dangerously experimental; the girls I knew asked themselves internally, "What if the umbrella doesn't work like it does in the cartoon?"

But a young boy is not processing that kind of executive decision-making question as frequently when he wants to test himself in action, even dangerous action. Eventually, he will learn to think before he leaps, but the way he will learn that is, often, by leaping, by falling, and by running into walls or other people, both figuratively and literally.

Both from laboratory and brain scan directed research and your own citizen science, you can track many ways in which boys and girls see things differently, process things differently, and nurture and grow differently. The National Center has provided a research list for you at the end of this White Paper so you can look at brain scan and clinical research yourself. Through this effort, we can all work together to create a social revolution on behalf of boys that is grounded in the latest neuroscience of gender.

III. Reshaping the Education of Our Sons

Once we realize that boys learn differently than girls not just in America but in all cultures, should we then alter how we reach and teach boys? The answer is, obviously, “Yes,” but unfortunately, we do not tend to realize how profoundly we may need to change our systems and organizations, including our families and neighborhoods, to fully accomplish this goal.

We are limited by the fact that the vast majority of schools in the United States are schools in which teachers have not received substantial training in the male and female brain. Thus, they lead complex, large classrooms of boys and girls without having tools to find teaching methods that succeed with both genders. Most teachers fall back on emphasizing “sit still,” “use your words,” and “busy work.” They de-emphasize the kind of spatial-mechanical-kinesthetic learning that is helpful for female learners and essential for male learners.

Gender Bias in the Classroom

“[The boy’s world] is a world of action, exploration, and things. But school tells him to sit quiet, listen, not fidget, and pay attention to ideas, everything in fact that his brain and body are telling him not to do,” said Richard Hawley, an educator who has done extensive research on how boys learn. “The bias in education favors the bias in the female mind—the passive acceptance of verbally communicated information, qualified by question and answer, suits the female well. Even manual tasks, such as handwriting, suit the fine motor skills of the female opposed to the grosser mechanics of the boy. ... Education is almost a conspiracy against the aptitudes and inclinations of the schoolboy.”

William Pollack, author of *Real Boys: Rescuing Our Sons from the Myths of Boyhood*, and several other books on boys, echoed Hawley’s observation of gender bias in American classrooms:

Our schools in general are not sufficiently hospitable environments for boys and are not doing what they could to address boys’ unique social, academic, and emotional needs. Today’s typical coeducational schools have teachers and administrators who, though they don’t intend it, are often not particularly emphatic to boys’ needs; they use curricula, classroom materials, and teaching methods that do not respond to how boys learn; and many of these schools are hardly places most of our boys long to spend time. Put simply, I believe most of our schools are failing our boys.

The term “gender bias” began as a way of seeing how our culture left girls and women behind. While gender bias against females still exists in many areas of culture, in pre-schools, schools, and learning environments, the

cognitive and behavioral gender bias most persistent and damaging to our children is now a bias against males. Creating a revolution for boys in our school culture can happen if we see the success that social revolution had for helping girls.

For much of human history, girls were left behind. In the 1960s, various academic, legislative and educational leaders began to realize that girls were being shortchanged in school and initiated programs and organizations to rectify that situation. Now, girls have made great strides—leading state level test scores, outperforming boys in grades across the curriculum (including, in many schools, in math/science), dominating extra-curricular clubs, activities, and student governments, and dominating college and post-graduate matriculation, including medical school. Part of the effort to help girls centered on ways that girls could be better taught in the classrooms. Central to that effort was the female brain-friendly strategy of changing testing and class work to move more toward the measurement of verbal-emotive skill in increased use of essay tests.

Parallel to these positive changes in girls' learning was a more myopic focus on just a few boys—mainly the ones we considered trouble-makers, too privileged, or criminal—so that when the media and our culture commentators in the 1990s began to see issues with boys, the classroom was virtually ignored. Instead, Gurian points out, “we in public debate are focusing on the frightening/pathological males—less than 10 percent—and neglecting the majority of boys.” Focused on a small number of bad or privileged boys, we miss the tens of millions of boys who are drifting away from success.

Neglecting to look systematically at classroom teaching methods came even in the face of conclusions of some early studies into why males were faltering in homes, schools, society and the workplace. Throughout those studies, there is a recurring theme: “He hates school,” “he has no interest in learning,” “he is disengaged.” But even with the realization of those universal symptoms, there was very little effort by academics and legislators to look for better teaching methods for boys. Political pressures continued to help girls but did not come to bear in the academic and legislative worlds to help boys; thus, educational systems themselves have not significantly changed.

Student Engagement Often Means ‘Boy’ Engagement

Fortunately, now, some educators have begun to talk, share, and experiment with varying teaching methods for both girls and boys, in coed and single-sex classroom environments. The National Center for the Development of Boys is helping advance those discussions, to share information of what does work, and what does not work. One of our most important tasks is helping teachers receive training in how boys and girls learn.

When we and our partners provide training, we show educators, academics, and community leaders the PET, fMRI, and SPECT scans of boys' and girls' brains. We note that researchers have even done tests of boys' and girls' brains during inactive "I'm bored" times. Teachers and parents are amazed to see scans in which both girls' and boys' brains are bored, but it is the male brain that goes almost completely blank. The female brain is still deeply involved in the lesson. Even something like boredom becomes a learning advantage for the female brain and a potential disaster for the male brain.

Seeing these scans, teachers realize that, quite often, when they ask a question or give an assignment to learners who are seated and have been seated for more than a few minutes, girls are more likely to start processing that task immediately. While a particular boy might raise his hand more quickly than a girl, that is often just the "motion" in the boy, and as most teachers know, he does not necessarily have the answer to the question. He is trying to stimulate his brain. Many of the girls, on the other hand, are already brain-activated to do the assignment.

An analogy I like to use is this one: Girls' brains are like cars on cruise control; boys' brains are like cars that constantly stop, start, rev up, and then stop again. When boys' brains are stopped, they need to push the pedal to get the fuel flowing. Sometimes that means pushing their hand up, but often it means boys just sit there with un-revved brains. Because one of our primary jobs as teachers is to engage students, we must engage boys' brains with as much effectiveness as we already engage girls' brains.

A Literacy Experiment You Can Try in Your School or Other Environment

To test out some of what we've said here ask a boy to sit down and talk to you about a fairly complicated concept in something he just read. Take notes on what he says, especially in three categories—how many words he uses, how many sensorial details he uses (colors, sounds, smells, etc.), and how many emotive details he uses (how things felt to the characters or himself).

Then have him read a different story and when he is finished, ask him if he wants to take a walk with you, shoot some basketball hoops, play a game of ping-pong or do another other activity that requires physical movement and objects moving in space. During or after this movement, ask him again about what he just read. Measure the same three categories.

You can do these experiments with males of all ages, beginning from the youngest age at which they are able to read. You can also do this experiment with writing paper or a computer in front of them. Ask them to write a report about the book without the spatial exercise and then with it (throwing a ball up in the air, for instance).

In a majority of cases, you should find that boys' talking and writing will, on average, test better, include more words, and report more detail, when some form of spatial object and/or movement is involved.

This happens because the spatial-motion activity stimulates the right side of his brain as well as the left side. On the other hand, when he just sits still in a chair to write, only his left side is stimulated, so his brain does not have as much opportunity to produce words, sensorial details, and emotive details. Once movement and objects are involved, he is more likely to perform better in verbal literacy platforms such as writing.

This applies even to the littlest boys listening to a parent or pre-school teacher reading a story at "circle time." Gurian's studies have shown that many boys will retain less of the story when they are forced to sit still in the circle; when, however, they are allowed to roll around on the floor, or doodle, or touch an object in space, they retain more of the story, and they are able to discuss it much more completely.

Of course, teachers can't disrupt class periods to go shoot hoops and rolling around on the floor isn't always functional for older kids, but even high school classroom can do smaller, less disruptive things from using standing desks to allowing some student movement in the back of the room, to making sure teachers move around as they talk so that the brains of the students are stimulated by the teacher as 'object moving in space', to allowing doodling and other similar focus techniques.

In my twenty-five years as a teacher of boys, I often used the squeeze-ball approach. Whether the boys are trying to think of words to put on paper, wrestling with a paragraph from a book, or even looking at a challenging math or chemistry formula, their brains are often more able, perceptive, and effective when squeezing a sponge ball in their hands. The activation of more of their brain than just words causes many boys to become more able to tackle their assignment with depth, verbal acuity, and cognitive growth.

Visual Strategies for Boys

While spatial tools often help our boys to love rather than hate school, visual tools can be equally powerful as motivators. In the initial Gurian Institute pilots in the 1990s, and continuing through thousands of schools since then, including McCallie School in Chattanooga, Tennessee, Gurian discovered that once teachers receive training in the male brain they notice differences in the way the female and male brain crave visual stimulation to fulfill writing assignments. It is easier for many boys to express thoughts in words if they have first done so visually.

For example, if a teacher asks his or her students to write a two-page essay on how they spent their Thanksgiving break, the female brain activates word centers on both sides of the brain and is more likely to quickly connect the assignment to feelings of bonding, color, and texture. She might have trouble keeping her essay to two pages. Not all, but many of the boys, however, will struggle to put words on paper. They'll think, "I ate some turkey, watched some TV, visited with my grandparents." Very little depth, color, texture, thought in the words. And they may use less than a dozen words, which will all result in a low grade on his essay.

But when the teacher says to the class: "If you want or need to, go ahead and draw pictures of what you did—from arriving at grandma and grandpa's house to helping cook the food to having dinner to watching football to anything else. After you've drawn the pictures, go ahead and write your essay." Some students won't need this visual stimulant in order to activate word and memory centers but some will—especially boys. As the boy draws pictures of what he remembers, he activates his memory and word centers. After fifteen minutes to a half hour of this exercise, he then writes his essay relatively quickly, improving its word count, sensorial detail, and emotive detail. This leads to a much better grade and perhaps just as important, he will enjoy the learning activity more.

It is important to remember that the female brain is most likely stimulated for verbal output on both sides of the brain by a verbal prompt such as "What did you do over Thanksgiving break," while, without spatial or visual stimulation, the male brain is only stimulated on the left, which is not enough, especially when compared with the female brain's word use and word count.

In both the squeeze ball/movement strategy and the visual/graphic strategy, teachers, parents, and other mentors help boys activate words by stimulating cortices and neural areas that a non-boy-friendly classroom leaves unstimulated. A major reason boys hate school and don't do homework lies right here, in their generally underutilized and under-stimulated brains. While most males don't know how to say, "Hey folks, you are not teaching the way I learn" in words, they do say it by withdrawing from school and, at times, acting out against school.

Other Strategies for Boys

Some teachers we have worked with have adopted a loose, but effective, rule called the Energy Shift. Basically, it encourages teachers to change the classroom dynamics every 10 minutes so that various brain-friendly strategies get used constantly. Perhaps the subject matter gets changed at 10-minute intervals, or just simple things like having the students stand up and change seats (these are generally known as "brain breaks"). Sometimes, too, the teacher moves from the front to the back of the class for a few minutes.

All these actions stimulate the motion sensors in the brain and allow boys to be more engaged in the classroom activity, and none of them harm the learning of the girls.

Parents can do these same sorts of things with boys who are doing their homework assignments. By doing citizen science at home, each parent can learn when a boy needs:

- a squeeze ball
- physical movement
- visual/graphic exercises
- brain breaks
- energy shifts.

Parents can increase their bonding with their son by shooting a few hoops or playing a game while talking about the assignment. The bonding itself is good for parent and child, and it also cognitively stimulates the brain, and, thus, the learning and achievement process.

With all methods, harnessing the “team” aspect of boys’ learning can be crucial. Most boys have a desire to be members of teams, and to contribute to those teams and be recognized for their contributions. One of the best things I ever did as a teacher in an all-boys school was to have each boy, at different times, take responsibility for class-notes. I assigned a different boy every day the responsibility of taking notes for boys who were absent. We then put all the notes in a book so any boy could go back and review past classes. The book became the “team’s book.” Boys who otherwise would not take notes for themselves suddenly started taking detailed, thoughtful notes for the “team.” For those who were sluggish at first, I read their poor notes out loud and they learned quickly that they had to support the team better than they were doing.

The parallel to athletics here is important. The boys didn’t want to let their teammates down. They wanted to be contributing members of the team. By taking notes, moving the notes into the box, and intrinsically cooperating with one another by, at times, actually competing with one another to “do the notes better,” this “team” effort stimulated brain centers needed for learning and for social-emotional development through purposeful, team-driven, and competitive activity—all of which are absolutely crucial for teaching our testosterone-driven and male-socialized boys effectively.

Re-Visioning “Good” Behavior and School Discipline

A school superintendent told me a story. On a visit to a school in a nearby district, she noticed a large group—three or four classes—of boys and girls walking from the dining hall back to the academic building. What most caught her attention: the boys were running, playing tag, kicking rocks, and acting out of order; the girls, on the other hand, were walking together “better behaved,” most of them deep in conversation with one another.

This superintendent told me her first impression was that the school did not do a very good job of discipline—of keeping its students “in line.” But later she realized that this was intentional. The school was intentionally letting the boys achieve and bond through “motion,” while at the same time allowing the girls to enjoy bonding through verbal communication. As she thought about it, she realized she had indeed seen teachers and administrators watching and monitoring the students, ready to step in if a student became disruptive. She had also seen some girls in motion and some boys just talking without all the motion, so there was no unfairness to either gender. Everyone was allowed to bond and talk in the ways that worked best for them.

Once she talked with the administrators and teachers at the school, she came to understand the wisdom of the “non-intervention” approach implicit in allowing children—especially the boys who need it—more “motion in space.” The school’s data proved the wisdom: At this school, boys were better engaged than in others—their grades, test scores, behavior in class, and social-emotional wellness indicators showed positive results.

She went back to her district and is now working to implement similar theory and practice in her other schools. As she does so, she is suggesting strategies to her teachers such as squeezing that sponge ball, thumping that pencil on the desk, or air playing a guitar, noting that these are not necessarily “disruptive behaviors.” Rather, they, like bumping up against one another in the hallways during transition or recess time, are male attempts to get and keep the brain activity flowing so the boy can address assignments and succeed in learning and life.

Changing School Culture to Help Boys

As you can see, many of the National Center’s efforts in positive school reform involve gender specific training for educators. Because of success data from schools that have used this approach, like the superintendent’s, we know the efficacy of this tack for educational reform.

Unfortunately, however, when someone mentions gender-specific training in some communities there are social and political concerns. A member of a school board will say, “Wait a minute, if you help boys, you show

favoritism to the gender, males, that already has privilege. This will harm girls. If we are going to do anything gender specific, it has to be about helping females.”

Male privilege is real in society, and it must be constantly addressed where it appears. However, three parts of that statement are incorrect.

- Male privilege is not rampant in America’s schools. Our schools have become an intensely female-centric and female-successful environment. As we noted at the beginning of this White Paper, there are very few areas where schoolboys outperform schoolgirls.
- The assumption that only girls can suffer gender bias is incorrect. “Gender equality” is needed by males and females, as proven by demographic statistics in all racial groups. Among children of color, for instance, educational markers are far better for girls of color than boys of color. A primary need surfaces among males. Even among white children, white boys are farther behind white girls in aggregate test scores, grades, and behavioral markers.
- The belief that if you help boys you will harm girls is unfortunate, especially because the opposite is generally true. Research from the Gurian Institute’s initial two-year pilot program in six school districts, led by the Gurian team at the University of Missouri-Kansas City (reported in *Boys and Girls Learn Differently*, 2010), then the continuing research in more than one thousand schools nationwide (reported in *Saving Our Sons*, 2017) show improvement in grades, test scores, and student behavior for both boys and girls when teachers are trained in male/female brain science. Because the training is science-based, it leads teachers to also discover innovative techniques that help girls to learn better, especially in STEM subjects, and it cuts back on classroom management issues surrounding males acting out that stall out everyone’s learning—boys’ and girls’.

The will to help girls is strong and important but the broad strokes about privilege and harm are incorrect. To have a social revolution on behalf of boys, and to create the kind of gender-based educational reform that will bring American schools back to the top tier or educational success worldwide, we simply must deal with boys’ issues. Until we transcend simplistic politics, educational reform will not occur. The traditional “sit-still-and-learn,” “always use your words,” and “stop moving and touching each other,” will rule education and millions of boys will fall behind.

The call of the National Center is this one: While paying attention to culture-based models that favor males at the top end of the success spectrum, we must also, simultaneously, reform education by attending to science-based models of the learning brains of boys and girls that can help every student at every level of ability. The use

of ideological or sociological tenets should not impede the use of hard science. Both can help educators teach both boys and girls how to learn and grow into intelligent, responsible adults.

Thus, we advocate for every teacher training college or organization to ask: “How do boys learn best? How do girls learn best? What teaching ideas and discipline techniques work best with boys, with girls?” As we work together to answer these questions in every future university and school, we will best ensure gender equality.

IV. Re-thinking Male Privilege

Helping our sons in school, and providing training in the male brain to every teacher, will require us to rethink the way we look at gender in our public discourse. We hinted, in the last section, at how entrenched certain paralyzing views have become in educational circles. The Center hopes to respectfully counter this paralysis and catalyze deep change in a new, fresh way—a way that almost took hold in the late 1990s in the school safety movement, but then drifted out of national prominence.

During public discussion that accompanied a rash of school shootings in the 1990s—all done by boys—including the tragedy at Columbine High School in Colorado whose perpetrators were upper-middle-class, seemingly well-adjusted white teenage males—the public got a major glimpse into males in distress not connected to Black, Latino, or inner-city boys. Until the white male school shootings, brief public looks at male distress were reserved for non-white boys in the inner cities and in gangs; now, the public awakened to the possibility of a national boy problem that included but also transcended race, ethnicity, and socio-economic disadvantage.

Quickly, however, the nascent ‘boys’ movement’ was quelled by political alliances. Bill Steverson, educator, researcher, and author who focuses on boys’ issues, notes: “As the public started asking, ‘What’s wrong with our boys?’ it was a discussion clouded because of the upper-hand that males have traditionally had in American society. It became difficult politically to make an argument for boys when the general perception was that white males have it made in society and don’t need special attention. Furthermore, to many, the argument for special attention to the need of boys in general smacked of anti-feminism, thus creating negative connotations among politicians and other public decision makers.”

In the wake of these difficulties, the public discussion of the needs of boys dissipated into a relative niche and not a mainstream area of focus. The discussion was not helped by the undisputable fact that, historically, girls have experienced discrimination. The discussion became an “us vs. them” discussion in which male privilege, which is clearly bestowed on some males at the top of governments and corporations, ruled the conversation. “Only a few boys needed help,” the public decided, “not many, and certainly not white boys.” Those who advocated for boys were often seen as “out of touch” or “anti-female.”

Christina Hoff Sommers, author of *The War on Boys*, has written: “The rise of women, however long overdue, does not require the fall of men.” The paradigm in which the deconstruction of male privilege is the paramount need of an enlightened society sits at the heart of the polarization. Until we can see all the invisible, suffering boys around us—millions of them white, too—we will have difficulty creating educational reform, and all of society, women and men, boys and girls will share in the tragic results.

The National Center is committed to expanding the conversation on males, boys, men, and male privilege in these ways.

- We agree with Gurian’s research, encapsulated this way: “We must alter our thinking to include all three parts of gender—nature, nurture, and culture, ... and we must combat a non-malicious but also not-benign Dominant Gender Paradigm that has emerged in the last fifty years in the ‘big three’ (our academic institutions, governmental/legislative agencies, and media) that deploys superficial ideas about males. These ideas keep male life underserved, underfunded, and under-nurtured.”
- In discussing the role of boys in society, we at the Center have analyzed the available research on males and are moved by new research showing that, in many ways, boys can be just as much, and at times even more fragile than girls, especially when the boy comes from a disadvantaged life setting of less food, less education, and less parental attention. The male brain is, as Gurian has noted, “a more fragile brain in many ways, as is the Y chromosome at a genetic level. The either/or idea that boys are tough or privileged or doing great, while girls are languishing, fragile, and need all or most of our public funding is incorrect. It cannot be backed up by science.”
- We support cultural trends that invest in science-based understandings of boys and minimize the overuse of superficial paradigms. To a small degree, fortunately, this is beginning to happen in media and movies. Recent films such as *Manchester by the Sea* (2016) and *Boyhood* (2014) are deep explorations of the male psyche that include all three elements—nature, nurture, and culture—in male life.

The National Center is committed to positively supporting all forms of public conversation, whether in academics, neighborhoods, or art, that open up conversations on what is really happening inside our sons’ hearts.

V. Does “Be a Man” Protect or Harm Boys’ Emotional Lives?

“Manhood, which was once an opportunity for achievement, is now seen as a problem to be overcome,” said Garrison Keillor, founder and host of the Prairie Home Companion radio program. Part of deepening our paradigm for boys must include looking at how the role of boys and men in society has changed. As a black man in his late forties, I have lived that change. Because men are living the change, so are women; because boys are living it, so are girls.

While the changes in social roles have been helpful for our society, they have come at a price. Today’s boys are being sent confusing signals about what it means to be a boy—and a man—as Rosalind Wiseman points out in her book, *Masterminds and Wingmen*. The conflicting messages emerge throughout our culture, especially in its advertising, movies, video games, and television programs that portray boys and men, on the one hand, as stupid, self-centered, inconsiderate, and socially inept; on the other, as worthless unless they are heroic, soldier-warriors, suave, and sophisticated. Throughout these portrayals, boys receive a plethora of thin, stereotypical signals about manhood that are difficult to use for full social-emotional development.

In my “Understanding Boys” lectures, I like to give two examples from television shows of boys in culture. In the first, “The Simpsons,” Bart and Homer Simpson, a son-father team, leaves viewers with an unflattering picture of maleness: crude, simple, self-centered, arrogant, and uneducated. Sometimes these “heroes” are also misogynistic; other times, they need constant “rescuing” by the females in their family.

The second show, the comedy, “The Middle,” features a teenage boy, Axl, who disdains school, learns nothing, and is narcissistic and self-centered. That said, Axl also has a sense of vulnerability, of failure, and of intellectuality that he tries to keep hidden, even from his own family.

Axl, I believe, is more closely aligned with reality of most boys today. They are complicated in the way Axl is; they are not stereotypes. Yet, most boys are not actually as self-centered as Axl. Boys are complex creatures who long to be fully reflected and understood in their media and their world.

Ashanti Branch, a teacher in Oakland, California, created afternoon programs for boys to rescue them from the vortex of gangs and street life. In creating this program, he conducted an interesting experiment with those boys. He handed each of them a mask and asked them to write on the front of the mask what they are like in public. The boys wrote words like “kind,” “friendly,” “mean,” “bad,” “super.” He then asked them to write words on the inside of the mask – words that only they would see that described their inner, non-public

personas. They wrote words like “lonely,” “angry,” “sad,” “misunderstood.” Not surprisingly, most of the boys who felt these extreme feelings lacked significant and healthy male models in their lives.

William Pollock, author of *Real Boys*, has used the term “the Boy Code” to represent the cultural code of masculine toughness that many boys fall back on to survive. When that code is not monitored well enough, it can lead to attitudes of sexism, misogyny, and homophobia.

Cleve Latham, a McCallie School teacher who has taught boys and studied the issues facing them for close to 40 years, uses a different term than Pollock’s “Boy Code.” Latham calls it the “Locker Room Mentality.” He said that his students look upon the locker room as a kind of fraternity that “selected its members and marshaled them through the initiation into brotherhood.” This environment, Latham says, can lead to negative social-emotional responses, including hazing, homophobic, and violent behavior. Still, he says, at its base, the locker room, if properly policed by adult coaches, adds positively to the cultural “brotherhood” that boys need.

The locker room analogy that Latham uses was timely when the term that then candidate Donald Trump used to describe (and excuse) his behavior toward women prior to his election. Commentators wonder if the conflicting signals boys receive when celebrities, professional athletes, and sometimes even politicians seem to be rewarded for their misogynic behavior result in boys being less secure, more frightened and generally more confused about what is acceptable personal behavior.

One way to test out the level of confusion in a boy’s life regarding all of this is to ask him how he sees the term “Be A Man,” and its related term, “Man-Up.” You may get diverse responses. Also ask him, “What does he like, but pretend not to like?” You might be amazed by his answer.

- The hip-hop artist Kyle Myer says that “Man-Up is the most destructive phrase in the English language,” and undermines boys, forcing them into a box of insecurity, which in turns brings out anger and violence. “We teach boys how to wear the skin of a man, but we also teach them how to raise that skin like a flag and draw blood for it,” he said.
- Gurian advises against trying to delete “Be a Man” and “Man-Up” from our vocabulary because boys do want to “be men.” He argues that those terms are “generally good,” if they are stressed in connection with the attributes of: honor, integrity, responsibility, and compassion.

- Gurian and all of us at the National Center agree, however, that “Be a Man” can be misused, and often is in our culture, to encourage males to show no feelings and to be violent. It can also be linked to bullying, whether in person or in cyberspace. Bullying itself affects millions of children every year. The deepest causes of bullying, including childhood trauma and depression, must be studied and prevention programs developed and applied. On our website www.understandingboys.org you will find references to a number of bullying programs.

As we adults talk with and mentor boys, we can use these two “Be a Man” and “Man up” in conversation to engage the boys in deciding for themselves what a man is, and how not to be a bully or victim. Meanwhile, our research at the National Center shows me that we must be continually mindful of our boys’ culture-confusion when we teach and mentor them. If the males and females in a boy’s life mainly push a restrictive boy code for “Be a Man,” then that limitation must be targeted for positive change; when they bully, they must change. But we do not want to raise a generation of boys who avoid manhood. That, just like bullying or restrictive social codes, is a dangerous state of social regression.

VI. Fathers and Male Role Models

While boys are often confused about the norms for proper male behavior, they often lack significant and healthy fathers and male models to help them make decisions and become good men.

“Boys are confused about what it means to be a man,” said Warren Farrell, author of *The Myth of Male Power*. (NPR, 2017). His statement has been corroborated in hundreds of academic studies across the industrial world. Gurian Institute research over the last 20 years reveals the 25 most serious issues facing boys in the 21st Century; at or near the top of the list are

- “Lack of available and active male and masculine role models,” and
- “Lack of character and social-emotional development for boys in society.”

For more than forty years, key research from across the academic and governmental spectrum has shown that these two needs go hand in hand. If active fathers and healthy role models were available to boys, the road from boyhood to responsible, productive manhood would be a much easier one. Despite the clarity of this research, and in part because of misconceptions about male privilege in the family, the father role has been diminished in our society. Millions of boys have few or no healthy men in the household interacting with them in needed ways. In America, one of three children—over 24 million—live in father-absent homes. For African-American families, the rate even higher: Almost 64 percent. As Princeton University researcher Joy Moses and Jacquelyn Boggess discovered in 2014, anti-poverty programs marginalize fathers, adding yet another obstacle to good adult and child development, especially in disadvantaged communities that may desperately need father-involvement.

In 2011, at the request of a White House staffer in the Obama Administration, Dr. Warren Farrell created the Commission to Create a White Council on Boys and Men to include the lead American researchers in the field of male development. The Commission now includes more than four dozen scholars and advocates and has produced the most current scholarly meta-study of male development in America. Among some of the more compelling findings in the meta-analysis were these:

- A Swedish study in 2010 showed that boys and girls raised in households where there was no male presence were 54% more likely to be on ADHD medications;
- Another study found that the amount of time a father spends with a child is one of the strongest predictors of empathy in adulthood;
- A study of African-American infant boys revealed that if these boys had interaction with their father, their mental competence and psycho-motor skills (which are associated with higher IQ) increased;

- A U.S. Department of Education study revealed that a father’s active involvement with boys “is associated with an emphasis that children in the 1st through 5th grades get mostly A’s” and that positive impact on grades remains significant through the 12th grade;
- Studies from across the world confirm that the absence of fathers in a boy’s life will often result in higher rates of crime, especially violent crime, substance abuse, behavioral disorders, social-emotional distress, and dangerous social isolation.

There is no dispute among researchers that the male identity is confirmed by other males. While this does not diminish the role of women, research shows that no matter how much women do to build boys self-esteem and self-identity, the male presence in their lives is also an indispensable key to success. New brain research confirms that fathers and male role models positively affect the brain functions of maturation, including:

- Neural pathway development between the mid-brain (the reactive emotional part of the brain) and the pre-frontal and frontal cortices at the top of the brain (the executive decision-making part of the brain);
- Resilience gained from impulse control and problem-solving males provide via challenge nurturance, values and virtues mentoring, and character development;
- Healthy emotive expression, both in male-specific bonding and emotion reflection and in words-for-feelings that are important for long-term relationship with others;
- Mentoring in healthy relationship, marriage, and fathering, both by modeling these functions and by direct teaching and problem-solving as man and father;
- Socialization toward a sense of service and purpose, both intra-communal and extra-communal (i.e. both inside a family/community and within the boundaries of a country or world).

The males who provide this essential nurturing can be a dad, step-dad, coach, teacher, mentor, and other adults who confirm to the boy what he is worth in the world. A boy who does not feel that he is worthy as a man will often withdraw from the world or attack it.

Communities are seeing the need for male role models and are responding to it as they increasingly organize volunteers to help grow boys into men. These fathers and male role models come from homes, neighborhoods, nonprofit agencies, faith communities, and elder facilities. These male models give boys the feeling that they belong to the world of love, family, work, and honor; the older males teach the boys that they have a purpose; that they are needed.

Shawn Hardnett, a teacher and specialist in male development in Washington, D.C., recently summarized his key to male health: “Boys need a crew and a cause.” Within this crew-and-cause framework are fathers and other

males who provide a mirror for the boy's development into healthy manhood. All this said, we often hear stakeholders agreeing with the need for fathers and male role models then asking, "But this is a huge ask: where do we begin finding these healthy, involved men?"

Sometimes, great creativity is needed. A program in Missouri buses elders in elder communities to schools to have the older men read to the boys. Reading to a child can be a first major bonding step for new fathers as well. Often that assignment is relegated to mothers or grandmothers but if fathers, grandfathers, and mentors took over much of that responsibility, it would not only help secure male bonding with the boy but also enhance the sense boys have of the importance of reading.

Boys pick up "vibes" from fathers and male role models; if those vibes are negative or empty/absent about life and their roles in life, the boys reflect that negativity through anger, depression or some other destructive means. Fathers and male role models are essential arbiters of the mental and physical health of our nation's boys and men—essential to saving our sons.

VII. Helping Boys of Color

One of my own mentors told me: “If you want a boy to be a great man, make sure he has a good man to raise him and a community of men to support him.” Boys of color, especially in African-American communities, face a crisis in male development in large part because fathers and role models are removed from the family, whether from unwed births, paternal death, divorce, or imprisonment. In relation to the latter, several researchers have concluded that one in three African-American males will be incarcerated during their lifetimes.

I am an African-American male who was raised in what researchers call “a disadvantaged family.” My social setting was one of poverty and lack of a father, thus my own story has always been foundational in my work with boys. I have seen myself—and often been seen professionally—as a microcosm of issues facing boys of color. My own story, I believe, is shared by many people, and paints a picture of the challenges facing boys of color in working-class America.

The Schott 50 State Report on Public Education and Black Males (2014) somewhat captures my early life: “Black male students are at the bottom of four-year high school graduation rates in 35 of the 48 states and the District of Columbia where estimates could be projected for the 2012-13 school year (Latino males are at the bottom in the other 13 states).” This was my trajectory, but I was fortunate enough to “make it through the keyhole,” as I like to say, a small keyhole that too few boys of color get through.

My father was out of the picture when I was born, and my mother was still a teenager. Even now, I’m not sure who my father was. Because my mother did migrant farm work in New York, I was raised by my aunt, the woman I still call “mother.” Along with her and her children, my siblings and I moved around a lot and had various “step-fathers” over the years. While we did not live in the “projects,” at times we lived on government assistance, and I learned at an early age that I must develop the “street cred” that is associated with life in the projects.

“Street cred” is a subtle art. Your value comes in what you can do and what you can’t do. You learn to get into fights as a way to resolve conflicts, and the way you are judged by your peers depends on how good a fighter you are, how much money you accumulate, how athletic you are, and how much you have sex (or at least brag about having sex). For me, as for most boys in these situations, less emphasis is put among the boys on school-learning and becoming responsible men who live out the higher calling to serve others and work toward higher purpose. I was lucky to receive from my family and faith community some of this very needed character development, but many of my peers did not.

Love, attachment, and bonding often is lost in situations like mine. In my case, while I knew some of the adults in my life did love me, the expression of that love was almost nonexistent, in many cases. Because of the stresses the adults around me faced, they often had to live by the creed: “As long as I feed you, I’m doing my job.” When these adults provided discipline, it was always the stick and never the carrot. From my beatings, I grew up with bottled up rage that I saw not only in myself but in my brother and sister, in my cousins and friends, and in others in the neighborhood.

In retrospect, I now realize how emotionally abandoned my siblings, cousins, and I felt. Because of this constant abandonment, we learned to trust very few people. The value systems we learned often went sideways because there were not enough support systems to solidify them. It is one thing to talk about a level playing field, but when you’re on a steep slope, the field really can’t look level. The main way of looking for the level field is to get onto a new field—to get out of the projects or the economic hardship area and find somewhere else to raise your own children.

As we all know, educational reform for boys of color is now at the center of every debate about how to heal our society. While I had some teachers who truly changed my life, in the case of many of my friends, school was just a place where they were neglected and overlooked, just like they were at home. Some of my school friends are in prison or went to prison, making the school-to-prison pipeline a reality I saw every day.

Fortunately, however, I had a principal and a counselor who basically said, “We’re not going to give up on you, Troy.” I gave them plenty of opportunity to give up, but they refused to do so, and in the end, I was able to get both an athletic and academic scholarship to a top-tiered university. In that university, I faced a next phase of complication faced by many boys of color who get through the keyhole: I was thrown into an environment that I had never experienced, in which expectations and responsibilities were redefined, for which I had no preparation. Today, in my work at the National Center, I see others in my situation, boys of color in good schools or universities struggling like deer in the headlights with how to conform in their new social setting.

My story is just one story illustrating how monolithic the needs of our boys of color really are. Those needs are so complicated, we can often become paralyzed in efforts to address them. Things are happening, though, nationwide. The My Brother’s Keeper Initiative, with which the National Center is partnering in various cities, has helped communities and schools to innovate.

The National Center supports all positive efforts to change the trajectories of boys of color, and suggest these among the many potential innovations:

- Pilot programs in disadvantaged communities that include training for all educators, parents, agency leaders, mental health professionals, and faith communities in how the male brain learns and grows, including specific emphasis on discipline and social-emotional behavior expectations that work for boys of color.
- Alignment of academic study in a particular city or zip code with science-based research in that community, including epidemiological study of the primary causes of black and Latino male distress in the particular community, and assets in schools and faith communities targeted to that zip code.
- Mentor training programs in which not only adult males but also older sibling and peer-familial males are assigned to younger males for mentoring in character development, literacy, and social-emotional success. In this model, there would be no boy of color without a male mentor, even if finding mentors means going to elder communities outside the zip code.
- Collegiate programs to mentor newly arriving boys of color (and other boys raised in disadvantaged schools and communities) in survival and thriving skills in college for at least the full first year of their university experience.
- In communities where boys of color are falling behind on English language issues, the development of tutoring and English language instruction during the early childhood school years and, if necessary, well beyond matriculation.
- Provisions of grants to schools that allow for physical and mental health services for children of disadvantage, including a special emphasis on helping depressed boys of color to find other outlets for self-medication besides social withdrawal and violence.

I am now a man of color who made it through the keyhole because of powerful mentors and opportunities that motivated me to stay strong. Though I was somewhat depressed as I grew up—as I believe most boys of color in disadvantaged homes are—I was not chronically or dangerously depressed. As I got out of the ‘hood,’ I found new ways to thrive and serve. The National Center is committed to both raising awareness about the exact nature of the crisis facing boys of color in our country, and helping navigate that crisis toward clear and achievable solutions.

VIII. Boys and Faith Development

In Chattanooga, Tennessee, we and our community partners assembled a forum to try to understand how to help provide the male role models that boys need in our area of the state. The group we gathered included teachers, coaches, police officers, community volunteers, representatives of nonprofit organizations, and many others. Unfortunately, very few representatives from churches and faith communities came. We learned later that outreach to them had not succeeded as we hoped it would.

We reached out to them because we and our partners have seen around the country that faith communities can help boys immensely. As Pastor Tim Wright, author of *Searching for Tom Sawyer*, recently noted: “Faith communities provide boys with much more than faith in a deity—they provide character development and, ultimately, help boys have faith in themselves.” The Christian psychologist Gregory Jantz, co-author of *Raising Boys by Design*, echoed this statement with his personal story: “Not just for my clients but also for my own sons, having mentors in their faith communities has helped them become true to values and virtues they want and need to learn as men.”

In my interaction with community groups around the country, I’ve noticed that faith organizations want to be at the center of trying to help boys, but may feel restricted. There is cultural fear about including faith communities for fear of treading on legal separations of church and state. While this separation clearly requires careful management, faith organizations—regardless of their specific religious tenets—are a gold mine for finding mentors. Communities and schools can utilize faith-based assets without treading into religious territory by including mentors and others from faith communities who pledge not to proselytize. In Arizona, this has successfully happened via the Governor’s Office of Faith and Family. This secular/faith partnership allows state agencies, including educational institutions, to work with faith communities within legal limits.

To exclude faith communities is, often, to exclude a major vehicle of hope. In many instances, especially in the inner city, schools are so unfriendly to the learning brains of boys, the only hope that boys can see is the hope that comes from the church and from faith.

The National Center, like Switzerland, is neutral. We respect all viewpoints when working with others in tackling issues with boys, and therefore we do not favor one faith or faith-culture over another. We recognize that most faith-based organizations have one important thing in common: their emphasis on raising healthy children. In reviewing research from both faith-based organizations and academic studies on the usefulness of faith-communities in child development, we hope faith-based communities will provide the following and be welcomed to do so:

- Provide rites of passage to boys. The Jewish b'nei mitzvah is well known, as is Christian confirmation. A new program, highly contemporary, is *Following Jesus: A Heroic Quest for Boys* developed by Pastor Tim Wright (www.timwrightministries.org), and used with boys age 12 to 14. Rites of passage can become powerful and life-changing development epochs for boys and families.
- Provide mentors to boys who emphasize the values of love and forgiveness. Boys need to experience those values and hear and feel that they are loved and forgiven by adult men as they make the mistakes of boyhood and face the adversities of adolescence.
- Provide forums in which to explore the theme of respect with boys. Respect of authority and self-respect are a balancing act that every boy must navigate on his journey to manhood; these are a high point of emphasis in most faith communities in which, even the most hardened gang member takes off his hat and bows his head in church, and generally respects the clergy.
- Provide free tutoring for any boy (or girl) in a disadvantaged community that needs help with reading, math, science, athletics, or any subject or function related to schooling and extra-curricular activity. The mentoring can occur at the church or other faith-based building so that the environment is inherently safe.

As faith-communities provide mentors, rites-of-passage, love, forgiveness, respect, and help with social-emotional and cognitive growth, more of our sons will be saved. Given the sense of service built into every congregation, as well as the number of retired or part-time retired men and women in faith-communities, these communities are untapped goldmines of help for boys.

IX. The Impact of Sports and Athletics

Sports and athletics work well for many of our young “objects moving through space.” Because of their neurobiology, most boys are often drawn to the athletic field, to the court, or the rink, or even playing football in the back yard. Research completed over the last three decades continues to confirm that boys who stay involved in sports and athletics are more likely to succeed in school and less likely to engage in abuse of substances. While athletics is not for every boy, it can, literally, save boys’ lives.

I am a lacrosse coach who has taken teams to several state tournaments. In my own personal journey as a boy, athletics were crucial to my success. In my experience, athletics fulfill the deep need in boys to do these five things at once:

- Compete
- Belong
- Grow
- Perform
- Improve

Athletics does all five of these in one activity. Research shows that roughly 65 percent of all boys in high schools participate in organized athletics because sports “give them a crew to belong to, a mission greater than themselves, and a male bonding experience that stimulates their social-emotional development.” The minute a boy puts on a uniform, he says, “I am part of something that absolutely matters.”

As I coach boys, I notice this scenario constantly: A boy will run sprints with shoulder pads on in 95-degree heat in the middle of the summer until he is totally exhausted but won’t sit in an air-conditioned room and read something that a teacher has forced on him. Why? There’s a value that he places upon himself to the team, to the coach. He seems to say, “I’m on the team, so I matter, and I’m going to train and work hard because I want to matter more.” While we adults know his assignment in class is equally (and sometimes more) important, his body and brain want the belonging, the competing, the important mission, and the challenge.

Recently, I spoke with a teacher who was utilizing this concept. She heads up a very successful theater program. While we were talking, a boy came up, interrupted and said, “Hey coach, are we having practice tomorrow?” After the teacher answered the boy’s question, I turned to her and expressed my surprise that he called her, a theater instructor, “coach.” “Well, that’s what I am,” she said. “I organize a team, teach them the proper techniques, assign their specific roles, and then push them to their limits so they can be successful on the stage.” What a powerful hybrid of sports and the arts.

While athletics and sports are not for everyone, they are so beneficial for many boys we at the National Center hope to inspire every family and community to seek out and provide athletic experiences that fit the individual boy. For some boys, team sports are not fun; for them, other kinds of sports, like tennis, might be a better fit. And for boys who will never compete in any sport, the cross-training, mentoring, and “cooperative competition” in sports are still good values to instill.

A further hidden reason to make sure boys play some sports, do some sort of athletics, or at least get a great deal of “sports-like” exercise, is neuro-chemical: in the Gen X/Y, Millennial, and new Gen Z generations, male testosterone level baselines have decreased precipitously, mainly because of neurotoxins such as endocrine disruptors in food and fertilizer, as well as plastics and other chemicals in their diets. This baseline decrease is linked to depression, under-motivation, obesity, brain disorders, and many other mental and physical health concerns for males. Sports and athletics raise testosterone baseline levels, which is, overall, very important for male development, especially among boys and men whose testosterone level has become too low for safe development.

The National Center hopes you will consider involving boys and communities in these innovations around sports and athletics:

- Focus as much on character and leadership development through sports as winning at a particular game. Help boys realize they do not have to succeed by themselves, alone—sports and athletics help a boy become vulnerable and thus help boys create supportive community.
- Utilize sports as mentor/coach providers in vertical mentoring frameworks that include connecting younger boys with peer mentors (boys just a bit older). Every younger boy on a team will need mentoring from older boys.
- Simultaneously, instill the idea in athletes that they are mission-driven role models, first and foremost. As much as possible, connect one of these role models with a younger or peer boy.
- Teach all the boys the difference between harmless bonding rituals and hazing and bullying. Insist on the former and punish the latter. To do this, you will have to teach boys the difference between aggression and violence. Sports are, by nature, aggressive but violence is dangerous and ultimately destroys a school or community culture. Rites of passage and bonding rituals are supposed to build members up in a healthy way, not try to destroy an individual, whether physically or emotionally.
- Connect athletic performance with academic achievement. Avoid giving boys with athletic talent a free pass on grades and test scores; as needed, connect them with more academically inclined boys for mentoring and tutoring.

- Utilize coaches to help teachers in classrooms to bring healthy competition, game theory, and physical movement strategies into classroom engagement. Just as our athletic departments have a lot to learn from our classroom teachers, our teachers can learn a lot about motivating boys from coaches.

At the National Center, we have made it a pillar of our strategic plan to partner with sports teams and schools to train coaches on how to fully support the boy's journey into manhood. When we do this, coaches decide how to help boys grow into adults, not just athletes. These coach-mentors let the boy know that he has an important purpose. This kind of coach will teach beyond the season, remaining available to the boy even when the season is over, still "coaching" throughout the year.

X. Boys and Technology

Many of the most frequently asked questions we receive at the National Center involve electronics and technology. Some of these are:

- What are good limits for parents and schools to institute for boys' and electronics, video games, and other devices and technologies?
- At what age is it best for a boy to get a Smartphone? How young is too young?
- My son spends all his free time playing video games, what should I do?
- Should I allow my son to play violent video games? Do they glorify violence and killing too much for a boy's development?
- Why do boys gravitate so quickly and easily toward screens and video games?
- How much screen time per day is too much for my son?

Concealed in nearly every question are questions about healthy development of a boy's brain. The technologies a boy uses at home or on his person quickly and easily "light up" parts of his brain, including parts that were dormant but hungry for attention in his school or other setting he might consider "boring." Video games, for instance, stimulate spatial-mechanical and visual-graphic centers on the right side of the male brain, making the brain release more dopamine (the brain's "feel-good" chemical) as it manipulates objects in various colors and shapes that move through virtual space at nearly lightening-speed.

Video games also give the boy's psyche an important heroic role. Like athletics and sports, video games allow boys to be aggressive and competitive without being destructive. Even in environments in which boys feel they are losing in life, they can turn on a video game and find an avenue to success.

At the same time, video games—like too much screen time in general—have a dangerous downside. Excessive use of video games can impede healthy dopamine release in boys' brains, which can trigger impulsive behavior and even addiction. Boys who spend most of their time in front of a video screen generally become less social, less personable, and less adept at interacting with others.

Computer, TV, I device, and cell phone use are all, also, part of this equation. Giving a ten-year-old boy a cell phone with Internet access, for instance, can derail his life in many ways, just like putting two-year-old boys in front of screens for two hours a day can negatively alter their brain development. Bill Gates recently stated publicly that he not only protects his children from excessive screen time in general, but also, he and his wife, Melinda, did not give their children smartphones until they were 14. This was a crucial public statement from leaders in the tech industry who are aware of the potential dangers of excessive technology use.

Despite potential dangers, many schools are moving children's education and homework toward screens. While some tablet and computer use is good for the brain—and some of it, especially its educational programming, can help boys learn well--the American Psychological Association and nearly every other similar agency has noted that a hyper-emphasis on screens can retard brain growth. The reason: The brain is meant to learn through whole body/whole brain experience. If we move much or most of that experience away from the real world into screens, a child's cognitive, physical, and social-emotional growth can be negatively affected.

A boy of 12, for instance, who spends six hours a day in front of a screen, even if four of those hours took place in school, will likely be harmed by that screen time. As family physician, Leonard Sax has pointed out in his book, *Boys Adrift*, too much passive screen time can prune away cells and brain activity that we would not want the brain to prune away, cells that are needed for personal development and self-motivation.

In *Saving Our Sons*, Gurian suggests that parents limit screen time in developmentally appropriate ways, including limiting most screen time use on school nights to educational purposes and keeping electronics out of bedrooms and away from family meal times. The American Academy of Pediatrics has recently released new developmental guidelines for digital media use that can be accessed via their [website](#). Gurian takes these guidelines further by suggesting no video game use for boys on school nights.

Gurian also suggests that parents measure the need for intervention on screen time and videogame use based on three indicators they can study as citizen scientists:

- Is my son performing well in academic and personal achievement (cognitive development, including grades, test scores, etc.)?
- Is my son getting at least two hours of exercise per day, and eating right for his daily growth (neuro-physical development)?
- Does my son have friends and activities (faith community, service work, athletics, Boy Scouts) outside of gaming relationships, and does he relate well to various adults (social emotional development)?

If the boy is having difficulty in one or more of these developmental indicators, screen time may be a culprit, and the family may need to be extra vigilant with screen and technology use for this boy.

In this vigilance, teachers can also play a crucial role.

- As citizen scientists, educators can study boys' use of electronics in their institutions and teach boys and girls to become these same scientists in their own lives.

- Educators can “work with” what boys love by having students write about their videogame experiences as part of a social studies assignment.
- Because videogames address issues of character development and good overcoming evil, many video games, even violent ones, can have a positive impact on conversations in class about character development.

As a parent of a videogame enthusiast and a teacher myself, I advise this question: “What would my son be doing if he were not playing the video game?” If the question is asked on a school night and the answer is “nothing,” then the family, including the boy, may need to get the boy into another activity like music, drama, sports, service work, or more reading.

Video games, smart phones, laptops, tablets, TV ... all of them are privileges not a right, and thus, time on the device can be used as leverage. “For every hour that you spend playing video games or watching TV,” a parent might say, “you must read for at least 30 minutes.” “For every hour in front of a screen, you must get a half hour of physical exercise.” Parents and sons can monitor the execution of these trade-offs to make sure boys follows those rules.

A powerful exercise in a family is to ask a son to propose how much time per day he thinks he should spend in front of screens, including video games, cell phone, computer, TV, movies, iPad, etc. Usually, when put that way, the boy will respond with a realistic number, and when it is the boy’s number, not the parents’, boys are often more motivated to adhere to the time limit and make changes in their lives regarding screen time if needed.

XI. Boys and ADD/ADHD

When the topic of boys, and especially boys and behavior, comes up, immediately the conversation turns to ADHD, Attention-Deficit/Hyperactivity Disorder, and its related condition, ADD, Attention Deficit Disorder. The U.S. Centers for Disease Control has revealed that 15 percent of all elementary-school aged boys and 7 percent of girls will be diagnosed with ADD/ADHD, and by high school, a staggering 20 percent of all boys—roughly 6.5 million—will be diagnosed, with two-thirds of them placed on medications.

While boys in other nations have ADD/ADHD, as a percentage, its diagnosis is much more prevalent in the United States. Reasons range from our diet and neurotoxins to the high number of hours that American boys spend in front of screens. ADD/ADHD is carried in parents' genetics and gets triggered in the child.

Most researchers believe the condition has existed for generations, but it is also over-diagnosed, especially in the United States, where nearly 80 percent of the world's Ritalin is used. According to Michael Roizen, M.D., with ShareCare, Inc., ADD/ADHD are more common in boys than girls because of its association with the Y chromosome and male brain development. Females have two X chromosomes and thus a backup system that might be able to handle the malfunction of one X chromosome, whereas males have one X and one Y chromosome and thus no backup system.

The general checklist for potential ADD/ADHD is this one: My son often experiences all or most of these:

- Fails to pay close attention to details or makes careless mistakes in schoolwork
- Has difficulty maintaining attention to tasks or play activities
- Does not seem to listen when spoken to directly
- Does not follow through on instructions and fails to finish schoolwork, chores, or other duties
- Loses things for tasks or activities
- Is easily distracted from his tasks by extraneous stimuli

Parents should get professional help to determine if their child has ADD/ADHD and needs medication. Gurian recommends tests conducted by a psychologist or psychiatrist. "If your pediatrician, after talking with the family briefly, advises that the boy has ADD/ADHD and should take medication, we must remember: this pediatrician is very smart but hasn't done neuro-psych battery testing on the boy. That's what needed. Generally, pediatricians are not qualified for those tests or do not have the time to complete them. Another professional will likely be needed."

The most frequently used medications--Ritalin, Adderall, Vyvanse, and Concerta--all may help when prescribed professionally and taken as prescribed, but they are Schedule II drugs, so they have a “high potential for abuse,” and can result in “severe psychological or physical dependence.” It is crucial that a normal boy is not put on these drugs just because the school or other environment does not know how to handle and teach normal boys. That kind of “diagnosis” becomes a slippery slope that can lead to complications in the boy’s development later.

XII. The Future of Boyhood in America

In this white paper, we have discussed topics of concern for boys that, taken together, can paint a daunting picture facing boys in the 21st Century. There are, indeed, challenges before us. The number of boys who are failing or falling behind is high. Millions of boys are over-medicated or unable, in impoverished communities, to get needed diagnoses and medications. Boys today suffer from brain and mood disorders in numbers unheard of in the past, and in high numbers in the U.S. Millions of boys are immature and unable to thrive, without motivation or a sense of purpose.

Things are hard for boys but if there's one thing that we know about boys it is this: they are resilient, individually and as a group. If we give them direction and support, they will try to meet our high expectations. I'm reminded of a legendary teacher at McCallie School, John Strang, who in 40 years of teaching boys never lost his love for male energy. Every year, "Yo," as he was affectionately called by the boys, stood in front of the new sixth graders and proclaimed, "You boys just get better and better every year."

It is with that kind of optimism that the National Center for the Development of Boys was formed. The Center is committed to helping parents, teachers, coaches, counselors, and others to make sure all of us will be able, no matter where we are, no matter what group of boys we are addressing, continue the affirmation: "You boys just get better and better every year."

Even as statistics worsen, we will work toward this future by collaborating with individuals and organizations that share our goal. And we'll spread the word because we firmly believe that before a community can help boys, it must more deeply understand them.

The first step every school, home, organization, or community can take to save our sons is to deeply understand them. Boys are far more complex than we realize, and after decades of studying them only with very limited social paradigms, we have come to a turning point: we must now study them in their full complexity. That will mean understanding their nature, how to nurture that nature, and how to socialize the whole spectrum of boys for loving, wise, and successful manhood.

Please join our work and reach out to us at www.understandingboys.org. We are here to serve you, your family, and your community.

XIII. Notes and Resources

Boys in Crisis

Statistics listed in this section are the tip of the iceberg regarding boys' distress. The statistics have been vetted in the meta-analysis, "Proposal to Create a White House Council on Boys and Men," (2014). Lead authors of the study were author group Chair, Warren Farrell, Ph.D., Dr. Michael Gurian, Marty Nemko, Ph.D. and Peter Moore. The study authors also include 34 other scholars (please find this study at www.whitehouseboysmen.org). Evolving statistics have then been vetted by Dr. Gurian subsequent to the Proposal's completion, with updates in *Saving our Sons* (2017).

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