A recent Newsweek Magazine article (July 19, 2010) is of particular relevance to educators and parents of the gifted — http://www.newsweek.com/2010/07/10/the-creativity-crisis.html. The Creativity Crisis discusses some of the current research on creative thinking, e.g., Jonathan Plucker of Indiana University found that adult creative accomplishments had a higher correlation with childhood creativity than with early IQ scores. Urgent findings related to the current state of American education were reported by Kyung Hee Kim of the College of William and Mary, who analyzed Torrance creativity results collected over several decades. She found these scores began to significantly decline after 1990. The decreases were greatest for students in grades K-6. Why have creativity scores taken a turn for the worse? Here are my opinions: The hay day of creativity training and research in America’s public schools occurred from the 1960s through 1980s. Leaders such as Paul Torrance, Mary Meeker and Donald Treffinger developed many training techniques to improve creative thinking – among them were brainstorming, warm-up exercises, divergent thinking exercises, and visual thinking techniques. However, after the high stakes testing movement gained momentum in the 1990s, the open-ended learning environments that encourage creative thinking were replaced with more structured, teaching-for-the-test classrooms. These highly structured, test-oriented learning environments have been particularly destructive to gifted children who are disposed to engaging in creative thinking activities and producing innovative solutions to problems. For now, the divergent thinking atmosphere emphasized by Paul Torrance, J. P. Guilford and Mary Meeker is in limbo, having been replaced by emphasizing convergent thinking, and fortified by excessive multiple-choice testing and reporting. Another negative influence on creative learning has been the relentless march of mediocre and mind-numbing passivity caused by too many hours of hypnotic web surfing, watching television and playing video games. The result is millions of passive learners indisposed to exerting more than a small percentage of their billions of neurons.

For almost twenty years, Dr. Donna Ford has been writing and teaching about the importance of identifying minority students for gifted education programs. Her dedication to solving this problem is clearly indicated in the article on under-representation. It presents her recommendations for improvement based upon extensive work with school districts, teachers and parents. Please read and study Ford's paper with the goal of increasing the participation of African American and Hispanic students in high ability programs. This has been a long battle that many school districts have been waging; all of us must help them move forward to success! The article by Dr. Henfield and Dr. Grantham will help educators to use school counseling services to identify minority students for STEM programs. They have presented some excellent strategies and resources for attaining this goal. Dr. Hanna David’s article describes the book she wrote with Dr. Echo Wu. It demonstrates how the case study method produces insights into the development of gifted children from stressful environments. In the next article, Kim DeRonda analyzes whether gifted education should be a right or a privilege. She talks about the definitions, regulations and needs that underlie her excellent observations. Dr. Michael Walters concludes this issue with his essay on the great poet of nature and human thought, William Wordsworth. Have a successful 2010-11 school year!
Under-Representation and Gifted Education: The More Things Change, the More They Must Not Stay the Same

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Note: This article reinforces and expands upon Ford (in press).

Each year, I feel compelled engage in self-reflection regarding my professional goals and scholarly focus, along with, if any impact, I might have had on moving the field of gifted education forward in addressing under-representation. I’ve used writing as a form of catharsis for a number of years to air my thoughts, concerns, and frustrations. For almost two decades, I have given my professional life to the field of gifted education, seeking to ensure access, equity and excellence for gifted students, but particularly African American students. More than ever before, I am reflecting on the persistent or stubborn problem of under-representation among Black and Hispanic students in gifted education (and Advanced Placement). Why is change so slow and miniscule? Am I getting more impatient as I age? Is it because my justice meter is higher than others, that my focus on under-representation is not just professional, but also personal? Is it because I know that we can do better at decreasing under-representation but am fearful that the moral will seems to be ‘missing in action’? I see the same problems and issues of under-representation being discussed with too little progress being evident, and I am at a loss to understand how ‘the more things change (re: our nation’s demographics), the more things stay the same.’ Clearly, what has been tried in the past has met with few positive results or changes. Let’s try some new and different things.

In the following pages, I share my thoughts on some of the key barriers to increasing the representation of African American and Hispanic students in gifted education, and offer suggestions for moving forward to meaningful change and progress. This article is grounded in the basic belief that under-representation negatively affects the lives and future of Black and Hispanic students, but also the school district, the community, the state, and the nation. I was reminded of this belief by Secretary of Education Arne Duncan at the recent (April 2010) Council for Exceptional Children conference. As Duncan stated, ‘we do not have expendable students.’ Under-representation is a local/community, statewide, national, and international problem that impedes our capacity to compete and thrive on multiple levels and in many arenas. In other words, under-representation is not their problem; it is everyone’s problem. We all (e.g., educators, families, communities, and businesses/organizations) pay a price when students don’t do well; we all benefit when students do well. Thus, when under-representation is viewed as having personal, social, fiscal, and long-range implications, perhaps changes will be more proactive and aggressive.

Under-Representation: An Overview of the Past Juxtaposed with the Future

According to the U.S. Department of Education’s Condition of Education 2009 report, in 1972, culturally different students (Black, Hispanic, Asian, and American Indian) comprised 22% of public schools nationally; as of 2006, this percentage has increased to 42% -- almost doubling. And the schools are projected to become even more diverse! It is inconceivable that we would continue with past practices to meet the needs of this different student body.

The lack of a federal mandate for gifted education speaks volumes, reminding advocates that gifted education is indeed the stepchild of education in general and special education in particular. We know, as a field, what it is like to be denied or have compromised certain educational rights – due process, funding, a mandate, etc. This form of denial or potential discrimination makes it difficult for me to understand why other types of injustice exist within the field (i.e., under-representation). It has always been my belief and hope that those who face discrimination would be less prone to discriminate themselves. I refuse to give up on this belief.

In addition to changing demographics nationally, the under-representation of Black and Hispanic students in gifted education is meaningful and statistically significant. For example, as of 2006, the most recent data for which federal statistics are available, Black students are under-represented by 48%; this figure represents a quarter of a million Black students (Ford, Grantham, & Whiting, 2008). Likewise, Hispanic students are under-represented by 38%, resulting in another significant number of students who are not accessing gifted education curriculum, programs, and services. Collectively, this means that approximately 500,000 Hispanic and Black students are not being challenged to reach their potential in U.S. schools nationally. It is important to note that Black and Hispanic males are more under-represented than all other groups; they comprise the bulk of those under-represented.

Under-represented students suffer in the short-run and long-run, as do their families, schools, communities, state, and nation. The barriers to increasing the participation of Black and Hispanic students in gifted education have mirrored those that I discussed for the last two decades. More specifically, the primary (but not only) four categorical barriers to representation are: (1) lack of teacher referral or under-referral; (2) students’ differential performance on traditional intelligence and/or achievement tests; (3) passé policies and procedures for labeling and placement; and (4) social-emotional concerns and eventual decisions of Black and Hispanic students...
and their primary caregivers about gifted education participation. But these four issues are symptoms of three larger problems—deficit thinking (Ford, 2003; Ford & Grantham, 2003; Ford, Harris, Tyson, & Frazier Trotman, 2002; Ford & Trotman Scott, in press), and colorblindness (Ford & Milner, 2005; Ford, Moore, & Milner, 2005; Milner & Ford, 2007), and White privilege (McIntosh, 1989).

First, deficit thinking is grounded in the belief that culturally different students are genetically and culturally inferior to White students. It is a belief that their culture—beliefs, values, language, practices, customs, traditions, and more—is problematic, substandard, inferior, abnormal, and unacceptable. When deficit thinking exists, educators do not to focus on the strengths and potential of Hispanic and African American students; rather, they are blinded by low expectations and negative stereotypes. This can be seen with the poor referral rates of Black and Hispanic students for gifted education screening and placement (Ford et al., 2008). As I have proposed and/or argued throughout my career, deficit thinking is a systemic problem that influences all aspects of gifted education, from recruitment to retention—definitions and theories, instruments selected and interpretations of them, criteria, policies and procedures, curriculum and instruction, relationships, and placement (or lack thereof).

Colorblindness (also referred to as culture-blindness by Ford et al., 2005) is another systemic barrier to redressing under-representation (Milner & Ford, 2007). The philosophy and practice exist when educators/individuals intentionally/consciously or unintentionally/unconsciously suppress the importance of and role of culture in learning, curriculum, instruction, and assessment. Colorblindness is often equated with being fair by not seeing differences, and treating everyone the same. Treating everyone the same, even in the context of culture is not only unrealistic, but also impossible and contradictory to the goals of gifted education. That is to say, if we believe that gifted students are the same as all other students, there would be no need for gifted education programs and services. But this is not so—gifted students are like other students, but they are also different. This, too, is the case with culturally different students; as learned from cultural anthropologists and cultural psychologists, for example, they are like White students, but also different; Black students and Hispanic students are similar, but they are also different.

White privilege is equally troublesome and contributes to the poor participation of Black and Hispanic students in gifted education. As described by McIntosh (1989), White privilege represents unrestrained benefits that advantage Whites while disadvantaging others. White privilege is a solid part of the U.S. structural fabric and cultural workings. It is a form of entitlement and affirmative action in which the social and cultural capital (language, values, customs, traditions, etc.) of White Americans is valued and held as normal, normative, or the standard. According to Sue (2008), White privilege operates in an invisible veil of unspokenness and secrecy; it confers dominance to one group and owes its existence to White supremacy; and is based on the erroneous notion of individual meritocracy and individualism (e.g., Protestant work ethic).

**Suggestions for Change: The More Things Change, the More Things Must Not Stay the Same**

In a compelling article, Darling-Hammond (2010) placed the changing face of U.S. schools into perspective, referring to this era as being the best of times and the worst of times. It is the best of times because so many possibilities for change are possible. It is the worst of times if we refuse to accept the inevitable changes and to be visionary.

**Demographic Changes: Stuck in the Past Rather than the Future**. I often hear people, mainly White Americans, refer to wanting to return to the ‘good ole days.’ I immediately contemplate the date or era to which they might be referring. During slavery? During the Jim Crow era? Prior to legally sanctioned desegregation and equal educational opportunity under Brown vs. the Board of Education (1954)? Back to the days when blatant racism and discrimination were the norm, acceptable, and legal? Prior to the Civil Rights Act of 1964? Back to those years when ‘minorities’ were truly the numerical minority? Prior to having a Black President? Those days are dreary and a welcomed past for me. I know of few Blacks and Hispanics who want to regress and live in or relive those times. At the same time, I acknowledge that change is not easy. And for countless reasons, change is inevitable, and we (e.g., educators) are left with little to no choice about embracing the present and the becoming prepared for the future.

No one variable or factor is responsible for under-representation; instead, a confluence of factors is at work. To bring about change that matters, I recommend the following: (a) educators place under-representation in the broader umbrella of the achievement gap; (b) educators shed deficit thinking about culturally different students. (c) educators shed a colorblind philosophy and practices, and not ignore or discount social injustices and White privilege, (d) educators share the blame or responsibility for under-representation; (e) educators not acquiesce to the status quo and be complacent with a business as usual attitude; and (f) educators have substantive and on-going preparation to work with both gifted and culturally different students. Rather than belabor all of the aforementioned problems, readers are referred to my work as well as scholarship in gifted education by: Alexinia Baldwin, Mary Frasier, Ernesto Bernal, Margie Kitano, Tarek Grantham, and Deborah Harmon. In the future, we must hold ourselves more accountable for under-representation.
Join the Battle (War?) to Close the Achievement Gap. A national problem that extends beyond, yet includes gifted under-representation, is the achievement gap. I have argued for a number of years that we cannot close the achievement gap without decreasing under-representation. We cannot completely reconcile under-representation if we do not address the achievement gap in gifted education (e.g., Ford, 2006).

Disaggregate and Examine Data by Race. For reasons noted above, most work on under-representation focuses on Black students as they are the group most under-represented in gifted education (Ford et al., 2008). Although Hispanic students are also under-represented, their under-representation has improved over the years. This is not the case for Black students who are under-referred more than any other group. Thus, it is important that educators disaggregate data by racial groups so that each group’s under-representation is recognized and strategies can be tailored to their specific barriers, issues, and needs.

Examine Data by Gender and Race. Due to the significant percentage of Black and Hispanic males who are under-represented, there must be a greater focus on gender and race. Also, while females (i.e., White females) have received more attention in the literature of gender-based under-representation, the issues and needs of Black and Hispanic females must not be presumed to be the same as White females. Relatedly, the issues and needs of Black and Hispanic females are not the same as Black and Hispanic males. What are the needs and issues of Hispanic males, Hispanic females, White males, White females, Black males, Black females, etc.?

Examine Data by Income and Avoid Using Income as a Proxy for Race. One of the most pervasive, offensive, and stereotypical beliefs is that race and income are synonymous and/or that the majority of Blacks and Hispanics are poor. Nationally, it is the case that, percentage wise, more Hispanics and Blacks come from low-income backgrounds. However, it is not the case that most or all Black and Hispanic students/families are low income. When educators prejudge and stereotype in this way, when they make decisions based on opinions rather than data, they deny the economic diversity that exists within such groups (frankly, all groups), and use poverty as an excuse to justify under-representation. Using poverty as a proxy for race is counterproductive and fails to serve students, families, and schools and communities.

Focus on Early identification and Talent Development. Tied to problems inherent in poverty is early identification and talent development. Waiting until students are in grades 2-4 (or later) to identify or serve as gifted is counterproductive, especially when students live in poverty. As with any exceptionality, giftedness must be identified and addressed early. Talent development programs are critical and they help to decrease under-representation.

Under-Representation: Be Reasonable about What is Unreasonable and Inequitable. Educators must be more concrete about under-representation relative to what is unacceptable, indefensible, and inequitable. Setting and adhering to a common percentage or threshold gives all educators a concrete base or guideline from which to know that under-representation at and above a certain level must be addressed in a proactive and systemic way. Here are a few examples. Females are roughly 50% of the U.S. population, if they represent 30% of students in gifted education, is this acceptable, defensible, and equitable? Low-income students represent about 50% of students in schools nationally. Is 15% representation in gifted education acceptable, defensible, and equitable? Hispanic students represent 20% of a particular school district but 5% of gifted students in that district. Is this acceptable, defensible, and equitable? Black students represent 70% of a school district but 15% of gifted education. Is this acceptable, defensible, and equitable? Readers will vary in their views – subjectivity has contributed to past and current problems. We need guidelines that carry legal implications such that accountability can be better guaranteed -- so that we can stop shooting at a moving target. I support the Office for Civil Rights’ 20% discrepancy rule and am even more supportive of this dropping to 10%.

Definitions and Theories: They Must be Culturally Responsive. The first federal definition of gifted was issued in 1970, with several revisions up to 2001 with No Child Left Behind Legislation. The field has also been influenced by definitions and theories by Joe Renzulli, Robert Sternberg, and Howard Gardner. Thankfully, all of these theorists address and honor culture in their theories and scholarship. Having said this, I am perplexed that educators in school settings (e.g., practitioners, teachers, counselors, administrators) continue to adhere to and adopt colorblind works. As the nation and schools change, so too must definitions and theories.

Policies and Procedures: Some Rules Need to Be Changed. As noted by myself and other scholars, policies and procedures contribute in powerful ways to under-representation. For example, instruments (tests, checklists, forms, matrices, etc.), procedures (teacher referral and/or nomination; caregiver referral and/or nomination), when tests/instruments are administered, which tests/instruments are used, what accommodations are made, cutoff scores, and more, all promote and sustain under-representation.

Schools must examine policies and procedures that, intentionally and unintentionally, contribute to and maintain under-representation. Clearly, if teachers fail to refer or under-refer Black and Hispanic students for gifted education screening, identification, and
placement, then this policy and practice is not defensible. Similarly, if Hispanic and Black students do not score well on a certain test, then educators must question and change the test to avoid unfairness, bias, and under-representation.

Testing and Assessment: Stop Hiding Behind ‘Objectivity.’ Standardized tests are applauded for their ‘objectivity.’ Philosophically, I somewhat understand this position. The gray area rests in the reality that a human (or group of humans) made the test, devised the items and format, determined examples and wording, and determined how points for responses would be scored. Thus, subjectivity permeates even standardized instruments. Hence, I have always wrestled with the notion that tests are objective or as objective as some argue. And should a test be objective, educators often misinterpret, and then misuse the results (e.g., Ford, 2004).

Educating Educators: Professional Development and Coursework. Two forms of training seem to be the basis to preparing educators (teachers, counselors, administrators, etc.) for their profession. Educator preparation programs and professional development are essential for preparing educators on the issues and problems just discussed. Both should hold several classes and workshops to read and discuss the research and model articles; these classes and workshops should be required (not as electives or voluntary), and they must continue throughout the school year(s) and/or degree program. One or two workshops and classes can be helpful, but they are not likely to be sufficient for effecting meaningful changes in educators’ dispositions, knowledge, skills, and behavior or practice. Relative to professional development, once workshops have been completed, administrators ought to follow up with educators via observations and interviews to determine if suggestions are understood, valued, implemented, and if they are having an impact. Likewise, educators must take more than one course on the topics and issues, and they must also be evaluated.

Curriculum and Instruction: Move from Colorblindness to Cultural Responsiveness. When Black and Hispanic students are referred, identified, and placed in gifted education, it is necessary that curriculum and instruction be responsive to their interests, readiness, and skills (Ford & Harris, 1999; Ford & Kea, 2009; Ford & Milner, 2005). I support the model of differentiation presented by Tomlinson (2001), culturally responsive instruction by Boykin and colleagues (2005), along with multicultural education (Banks, 2008) and culturally responsive education (Gay, 2002, 2010). In their own right and combined, these models provide important and constructive guidance for how to make curriculum and instruction rigorous and culturally responsive (see Ford & Harris, 1999). When curriculum is rigorous and multicultural – culturally responsive – then more Black and Hispanic students will be engaged and motivated. With engagement and motivation comes performance; with higher performance or achievement comes greater representation in gifted education. Our schools have changed. The U.S. has changed. The world has changed. It is time for gifted education to change. With this said, a list of recommendations for change follows the theories and models presented in this paper.

References


1 I value professional development, but often see it misused and abused by presenters, administrators, and participants who do not take the information and purpose seriously. Some type of accountability is necessary to help ensure that change takes place.

Gifted Education Press Quarterly Fall 2010 Vol. 24, No. 4
Gifted African-American Students’ Participation in Pre-Collegiate STEM Programs: High School Counselors as Advocates

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Nationally, educators and policy makers have expressed concerns about the need for more students to develop strong academic skills and career interests in science, technology, engineering, and math (STEM) areas (National Mathematics Advisory Panel, 2008; National Science Foundation, 2006). Attention rightfully concentrates on three groups relative to under-representation in STEM areas: females, low-income students, and/or ethnic minority students (African American, Hispanic, and Native American; Jackson, 2002). It is vital to recognize that the issues and needs of these three groups are both similar to and different from those who are not members of this particular group of students. For example, relative to gender, African American females and White females face sexism in social and educational settings that oftentimes hinders their success. However, in addition to gender issues, African American females must also contend with racial barriers due to their identification as African American and female (Perna, Lundy-Wagner, Drezner, Gasman, Yoon, Bose, and Gary, 2009). Further, while African American males and females may be confronted with racial impediments, there are significant gender differences that must, too, be navigated (Perna et al.).

High school counselors represent an important point of access through which students receive information that can, potentially, decide their future. As such, their role is probably more important than any other school personnel, including teachers and school administrators, because they are responsible for developing the whole child by monitoring academic achievement, cultivating career interests, as well as students’ personal and social needs (American School Counseling Association, 2003). Some school counselors are making concerted efforts to make sure students are informed, prepared, and supported to engage in STEM majors once they enter college. However, the under-representation of African American students among those graduating with STEM degrees (Jackson, 2002) suggests that these students may require additional assistance from school counselors to increase their level of interest, motivation and academic preparation long before they enroll in college. The purpose of this paper, then, is to shed light on the similar and different issues confronting African American students interested in STEM, and how school counselors can serve as advocates for their increased exposure to these areas before college.

Barriers to African American Participation in STEM: Lack of Exposure

The United States’ position as a global/international leader is dependent on fully developing the academic talent of all its students, including African Americans, in order to keep pace with advancements of other nations. With the increasing amount of ethnic diversity within public schools, this country cannot be competitive in STEM areas and allow ethnic minority students’ abilities to atrophy. According to the technical report, The Quiet Crisis: Falling Short in Producing American Scientific Talent, it is asserted that the United States must make more of an effort to recruit African Americans and other ethnic minority students into STEM fields in

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Lack of Exposure to STEM Opportunities. One of the primary issues confronting gifted African American students is a lack of exposure to the numerous pre-collegiate opportunities available in STEM fields. While some gifted African American high school students may have a general understanding of the types of majors available to STEM majors (e.g., engineer, statistician, web developer) many other students may be unaware of the areas of specialization within STEM fields (e.g., electrical engineer, educational psychometrician, website search engine optimization specialist). With few school counselors exposing gifted African American students to pre-collegiate STEM experiences, consideration in applying for college and majoring in STEM fields becomes less likely.

Limited Access to Mentors and Role Models. It may be safe to assume that few African American STEM professionals live within African American communities. Conventional assumptions would suggest that as people become more successful, they likely gravitate towards more affluent communities. These communities tend to have smaller African American populations. Many gifted African American students may, then, find it quite difficult to imagine working in STEM fields given the limited visibility and guidance of successful African American STEM professionals. While it is important for gifted African American students to do well in STEM classes in high school, the likelihood of this happening would increase if African Americans who are currently achieving as STEM majors in college and as professionals in STEM fields would serve as mentors and role models. These individuals could serve as a concrete representations of the benefits and possibility of a career in STEM fields.

Feelings of Isolation and Alienation. The research literature is replete with information indicating African American students’ apprehension to being the “only one” in challenging STEM courses and special programs. Being gifted does not negate African American students’ heightened need for affiliation when enrolled in predominantly White STEM classes or considering a major in a highly competitive or hostile STEM area that does not have a track recruiting and retaining African Americans. As such, it stands to reason that gifted African American students would be reluctant to enroll in STEM programs that may cause them to feel alone, different, and marginalized.

High School Counselor Advocacy for African Americans in STEM Programs

Pre-collegiate participation in STEM programs is an important means of providing gifted African American students with enrichment and accelerated experiences that may help prepare them to navigate the increasingly competitive contexts that accompany majors and subsequent careers in STEM fields. African American high school students who choose to enroll in advanced courses are a great pool of talent for participation in challenging pre-collegiate STEM programs, given their desire for challenging academic experiences. Exposing these students to such opportunities is an important step in piquing their interest in STEM careers and helping them understand the myriad opportunities available to those who choose to major in these areas. There are, indeed, many programs available to students who want more exposure to STEM.

An important first step to increasing the number of African American students interested in applying for entry to STEM pre-collegiate programs is to advocate for systemic changes designed to increase their participation in such programs. Using Grantham, Frasier, Roberts, and Bridges’ (2005) recommendations, systemic advocacy should involve the examination of equity and access in the following domains: (1) African American Student Enrollment in STEM classes and pre-collegiate programs; (2) STEM Programs Notices; (3) STEM Programs Referral/Screening of Students; (4) African American Student Retention in STEM classes and pre-collegiate programs (see Table 1, p. 9).

High school counselors should collaborate with other educators to examine the trends in their school district in order to be best prepared to engage increased efforts for recruitment and retention in STEM classes and pre-collegiate programs. If African American student enrollment in STEM programs from elementary through high school (including advanced classes in STEM areas, STEM competitions, field trips to STEM corporations or governmental sites, overnight visits to STEM educational institutions, centers and other enrichment and acceleration activities) is found to be disproportionate to their enrollment in their respective schools, high school counselors should work in partnership with elementary and middle school counselors to become more involved in the nomination process, recommending greater participation for African American students in STEM programming beginning in elementary school.

Gifted African American students’ primary informant about enrichment or accelerated programs and activities is often the high school counselor. Counselors can inform African American parents about such programs, encouraging them to be proactive in exposing their children to important experiences. High school counselors must be determined to ask questions about African Americans’ enrollment in special STEM classes and pre-collegiate programs, and use this information to enhance their recruitment efforts not only directly...
with students, but with parents, as well. Given that African American families’ have traditionally had a deeply entrenched appreciation for education, including them in recruitment efforts could prove to be most fruitful in terms of increasing gifted African American students’ interest in rigorous STEM classes and activities. If gifted African American students are receiving a consistent message in support of STEM opportunities at school and at home, they are more likely to, at the very least, consider the opportunities at their disposal. Further, many STEM programs have an associated cost. Therefore, it is imperative that high school counselors work closely with parents to help them find ways to pay for these pre-collegiate programs. Table 2 (pp. 9-10) includes examples of programs, as well as scholarship information.

Pre-collegiate programs take on many different forms, including high school internships, summer engineering institutes, spring break externships with software companies, campus visits to biomedical centers at universities, and the like. As part of their function in schools, school counselors are keenly aware of students’ academic standing among their classmates, (including GPAs, scores on college entrance exams, level or type of diploma, class ranking, and involvement with STEM-related extra-curricular activities). As such, pre-collegiate STEM programs typically require that a school counselor send a transcript and write a letter of recommendation to explain the strength of a student’s academic credentials and future promise. School counselors must understand the significance of this responsibility and what it means in terms of establishing a pipeline of African-American students into STEM fields.

Although the number of gifted African American students enrolling in these classes and programs is a primary goal, high school counselors must also concern themselves with retention efforts, as well. In other words, although student enrollment may increase as a result of the aforementioned tactics, it is important that gifted African American students remain in these programs for the duration; this is much more likely to happen if they enter environments with other students and instructors who look like them. Therefore, high school counselors should also research pre-collegiate STEM programs that have an explicit emphasis on increasing diversity in STEM fields such as those programs offered by Historically Black Colleges and Universities (HBCUs). In addition to teaching skills needed to be successful in STEM majors, many of these pre-collegiate programs are designed to eradicate common barriers to African American academic success such as those previously mentioned in this article.

Final Thoughts

Nationally and globally, it is crucial to understand and appreciate how vital it is for more traditionally under-represented students to be highly skilled in STEM. The under-representation of gifted African Americans in these areas, however, is strikingly clear. High school counselors who empower gifted African Americans by recruiting them and retaining them in special classes and pre-collegiate programs in STEM fields prior to entering college play an important role in changing these students’ career trajectories in these areas. Indeed, high school counselors who collaborate with other educators and parents to open doors and create pathways for gifted African American students to develop and maximize their full potential in STEM programs will: (1) assist in increasing the pipeline of African American talent graduating from college with STEM degrees; and (2) expand the wealth of opportunities that accompany this major accomplishment.

References


Table 1. Advocacy Guide for Assessment of Equity for African-American Student Involvement in Special STEM Classes and Pre-Collegiate Programs

<table>
<thead>
<tr>
<th>Equity Domain to Assess</th>
<th>Questions to Pursue by Advocates</th>
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| African-American Student Enrollment in Special STEM classes and programs | • What is the composition of the district’s African-American enrollment by school?  
  o Number (%) of African-American students referred for participation in advanced special STEM classes and pre-collegiate programs;  
  o Number (%) of African-American students determined eligible for special STEM classes and pre-collegiate programs;  
  o Number (%) of African-American students withdrawing from, or otherwise discontinuing participation in Special STEM classes and pre-collegiate programs. |
| Special STEM Classes and Programs Notification               | • Is the notification of special STEM classes and pre-collegiate programs, with respect to both content and method of dissemination, effective for African-American families?  
  • Does the notice clearly explain the purpose of special STEM classes and pre-collegiate programs, referral/screening procedures, eligibility criteria, and identifies the district’s contact person?  
  • Is the notice provided annually to students, parents, and guardians, in a manner designed to reach African-American families in their community? |
| Special STEM classes and Programs Referral/Screening of Students | • Are referral sources used and accessible to and utilized by African-American families?  
  • Have teachers and other district staff involved in the referral process been trained and/or provided guidance regarding the characteristics of students with strengths in STEM areas, and their manifestation in African-American students?  
  • Are the referral/screening criteria applied in a non-discriminatory manner?  
  • Are all referral/screening criteria/guidelines directly related to the purpose of special STEM classes and pre-collegiate programs?  
  • Are the standardized tests and cut off scores appropriate (valid and reliable) for the purpose of screening African Americans for Special STEM classes and pre-collegiate programs? |
| African-American Student Retention in Special STEM classes and pre-collegiate programs | • Are program continuation eligibility standards/criteria and procedures applied in a non-discriminatory manner and do they ensure equal access for all qualified African-American students?  
  • Are program continuation eligibility standards/criteria consistent with the purpose and implementation of special STEM classes and pre-collegiate programs? |


Table 2. Sample Pre-collegiate STEM Programs and Scholarships for Racial and Ethnic Minority Students

<table>
<thead>
<tr>
<th>Example High School STEM Programs</th>
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<tbody>
<tr>
<td>• Naval Academy</td>
<td><a href="http://www.usna.edu/Admissions/stem.html">http://www.usna.edu/Admissions/stem.html</a></td>
</tr>
<tr>
<td>• Leadership, Education, and Development (LEAD)</td>
<td><a href="http://www.leadprogram.org/">http://www.leadprogram.org/</a></td>
</tr>
<tr>
<td>• National Society of Black Engineers (NBSE) Pre-College Initiative</td>
<td><a href="http://pci.nsbe.org/default.asp">http://pci.nsbe.org/default.asp</a></td>
</tr>
</tbody>
</table>
• Meyerhoff Scholars Program http://www.umbc.edu/meyerhoff/

Example Middle School STEM Programs

• Massachusetts Institute of Technology (MIT) – STEM Summer Institute http://web.mit.edu/stem/STEM_Home.html

• Architects, Construction managers and Engineers (ACE) – Mentor Program http://www.acementor.org/

• The Harris Foundation – Summer Science Camp http://www.theharrisfoundation.org/sitecontent/646/dr-bernard-harris-announces-2010-summer-scienc.aspx

• Center for Talented Youth (CTY) http://cty.jhu.edu/summer/summer-programs.html

Example STEM Associations and Scholarships

• The American Association for the Advancement of Science http://www.aaas.org/programs/education/#current

• National Society of Black Engineers Scholarships http://pci.nsbe.org/default.asp


• Jack Kent Cooke Foundation – Young Scholars Program http://www.jkcf.org/scholarships/young-scholars-program/

National Listing of Pre-collegiate STEM Summer Programs and Camps

• Sloan Career Cornerstone Center http://www.careercornerstone.org/pcsucamps.htm


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Rationale for the Book

Every happy, as well as unhappy, gifted child has her or his own way of adjusting, behaving, feeling, knowing, learning, and socializing. Our choice to write a case-study book is rooted in the belief that as much as the quantitative research in gifted education has been developed in the 20th century, it cannot fully replace the insightful and in-depth study of the gifted individual.

Gifted children vary from each other in all possible aspects: educational, psychological-emotional, cognitive-intellectual, familial, physical and cultural. Let us, for example, take into consideration just one component of giftedness – the measured IQ – which is the most common trait perceived as differentiating between the gifted and the regular or non-gifted child. In order to qualify for gifted education in many countries, a child has to have a minimal IQ of 125 or 130. Even when the cutoff is 130, and thus the group of gifted students includes about 3% of the population\(^1\), a typical gifted group will be much more varied regarding the range of IQs than an average group. In a gifted group, about two-thirds of the children will have an IQ under 140, and about 10% will have an IQ higher than 150. The odds are that there will be someone with an IQ of 160,170 or even 180. This means that unlike a regular classroom

\(^1\) When the cutoff IQ for participating in a gifted program is 125, as is the case in many American States, ~5% of the population is entitled to gifted education.
where about 70% of the children will have an IQ between 85 and 115, and practically all students will have cognitive abilities within 2 standard deviations from the average, the concept of "average abilities" would not even exist in the gifted classroom, and the differences in IQ between the majority of the children and the minority super-intelligent ones will be huge.

When thinking about all other differences among the gifted, we can easily conclude that even when the quantitative research gives us helpful information, we should not neglect the study of individual cases. The more detailed case studies that are available for the educator, researcher and parents, the easier is the process of coming to useful conclusions about individual cases.

**Usefulness for Teachers and Parents**

The collection of eight case studies, four Israeli and four Chinese, might be valued and useful not only to Israeli and Chinese educators and parents, but for anyone who teaches, supervises, educates, instructs or treats gifted children, their parents and their teachers.

The cases in this book challenge the concept of the "typical" gifted child. Many of the children have a learning- or physical disability. Such a high occurrence has, of course, no statistical meaning in a case study book, but it demonstrates the fact that there is a high frequency of various disabilities among the gifted. A large percentage of disabled children are not identified as gifted either because of the lack of the means for making such identification, ignorance of the fact that giftedness exists among the disabled, or the developed compensation mechanism of many gifted children that enables them to pass as average individuals (Baum, 2004).

About half of the children described are bilingual; some are even multi-lingual. This can also challenge the well-known America concept of the disadvantaged bilingual gifted child in comparison to the English native speaker. Landau and David (2005) have already written about a similar phenomenon in Israel during the 1990s, when the percentage of Russian immigrant children was disproportionally higher among the gifted, in spite of their language problems and the economic difficulties of their families.

Not all of the children described in our book – not even most of them – are from the upper-middle class, as can be misunderstood from reading American studies in giftedness. These cases show the power of values, belief, persistence and high motivational levels. When reading studies in giftedness, especially those concentrating on internal motivation, emotional traits and social norms, we get but a glimpse of the full story of how all these characteristics shape the gifted child into a successful, whole grown-up. The case studies in this book focus on the difficulties that gifted children and their families must overcome, the decisions that parents must sometimes make for young children, the separation from a homeland and a family, and the lack of a simple feeling of belonging. They show there are no miracles in educating the gifted. High ability is a necessary ingredient for developing giftedness, but in no case it is sufficient.

**Findings**

1. **The gifted child is usually a part of a gifted family.** In the eight case study chapters of this book, the total number of gifted people was twenty, counting only the parents. By counting also all siblings identified as gifted, as those who have reached gifted achievements without formal identification, the number would be more than doubled. We can go on – by counting uncles and aunts, as well as grandparents. In any case, although this book does not include quantitative findings, it shows exactly what has been described by Silverman (2009) that when one child in the family has been identified as gifted, all other siblings have a similar IQ within the gifted range.

2. **Gender of the gifted.** Most of the subjects in our studies were male. The question whether this finding is hereditary or familial, environmental or tradition-dependent has been already discussed in depth (Zorman & David, 2000). When the population is either Jewish or Chinese, we must take into consideration the special importance, both in the Jewish and the Chinese traditions, of having a male child. We must also remember that larger than two-child families are quite rare among Chinese since the 1980s, so it might be especially important that the male child will be nurtured and achieve highly.

3. **Age of the gifted.** The age of our subjects varied from 7 to 73. This variety makes it impossible to draw any conclusions about the influence of age on giftedness, but rather gives a panoramic view of the rich phases that giftedness comprises. Regardless of country, ethnic origin, religion or culture, we have seen that gifted people share similar common identifiers as babies, young children, adolescents, adults and old people. They are curious, striving for knowledge, and in many cases have inner strengths that enable them to overcome severe disabilities, illnesses or political situations influencing their immediate lives.

4. **Nationality and origin.** The Chinese gifted individuals appearing in our studies were born in a Taiwanese village, mainland China, Hong Kong, or the United States. The Israelis were born either in Israel or in Uzbekistan when it was still part of the USSR. While the Chinese belonged to many different ethnic sub-groups, all Israelis were either from Ashkenazi or Sephardim origin. However, birth
place or ethnic group had no influence whatsoever on the upbringing of the gifted in any of our cases. It was always the parents, the
home culture, and the values according to which the parents lived that had the major influence on the children.

5. Religion and religiosity level. It is quite interesting to note, that among the Chinese cases, those noted for their religiosity were the
families who lived in the United States. In one case, a gifted boy was even serving as a musician accompanying the songs in worship
ceremonies. It seems that formal religion was not needed either while living in China, or when moving to the United States at a
relatively young age. Among the Israelis, all families described in one study were religious, while three others were either secular or
atheists. No characteristics can be related to being religious or non-religious. The values these families share did not stem from any
religion. Not even one of our "heroes" explained her or his choices as resulting from practicing a certain religion. This conclusion is
important for educators, many of whom perceive religion as contradicting science or academic knowledge.

6. Inner strength in spite of illness or death. Most of the families described in this book had to overcome major health issues,
political turmoil, or separation from beloved family members – either due to divorce, immigration or death. However, it seems that
their ability to survive these traumatic events is a common characteristic of gifted families whose members have developed their
abilities.

7. Parents' educational level. In all our case studies, a comparatively high level of education was a common dominator of most
parents as well as siblings. However, in two cases, the parents apparently just had a high school education. But their disabled gifted
children did very well educationally. We can thus conclude that high quality education among parents might indeed facilitate their
gifted children’s road to success. This road might also be open to anyone who is persistent and highly motivated.

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**Should Special Education Programming for Gifted Students Be A Right or A Privilege?**

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This has been an ongoing debate for decades in the United States, but it did not come to the forefront until the Russians launched the
first man-made satellite that entered Earth’s orbit in October of 1957. That satellite’s name was Sputnik, and it caused a frenzy in
America. Before Sputnik, Americans were living the good life. The Great Depression and World War II were things of the past.
People were concentrating on the “American Dream” of having a decent paying career, starting families, and owning a house and a
couple of cars. Excellence in education was not a high priority in the mid to late 1950’s. After Sputnik, the federal government placed
more importance on math, science, and technology in order to bring us into the space race with Russia. The collective thought among
Americans was something along the lines of *How dare the Reds make it to space before us. We’re superior to them* (YouTube, 2008)!
Excellence and leadership were being demanded of all students, especially our gifted students (Gallagher, 2002). This would lead to
standards being adopted for students with special needs, both in special education and gifted education.

**Definitions**

In deciding if gifted students have the right to special education programming to ensure that their needs are being met, which is
afforded by law to students with disabilities, or if special education programming is a privilege, the definitions need to be reviewed.
According to Webster’s Ninth New Collegiate Dictionary (1987), a right is “…the power or privilege to which one is justly entitled”
(p. 1015). A privilege is listed as “…a right or immunity granted as a peculiar benefit, advantage, or favor…” (p. 936). The line
between the two definitions is certainly a blurry one, since each definition includes the other word. “Justly entitled” and “granted as a
benefit”: those are powerful definitions to ponder when considering this ongoing debate.
Disparities

Students with disabilities and gifted students have something in common. Both groups of children have certain needs that cannot be met within a standard, traditional setting using the standard, traditional curriculum that states mandate per grade level. However, students with disabilities are the only group protected by federal law under the Individuals with Disabilities Education Act of 1990, which was revised in 1997. From there, 33 states have taken it upon themselves to include gifted students under the IDEA umbrella, but only 21 states even require teachers of the gifted to be certified in gifted education (Russo & Harris, 1996). This is a huge disparity. Many researchers consider gifted students to be just as atypical as students with disabilities, so why are the states not treating the two groups equally (Clark, 2006)?

Many believe that gifted students will succeed whether they have special programming or not, but the truth is, these unchallenged, unmotivated students become bored, behavior problems, and possibly high school dropouts. If these children receive the proper motivation and stimuli throughout their schooling, they will have the opportunity to reach their maximum potential (Russo & Harris, 1996). Learning opportunities for the gifted need to be expanded beyond the traditional classroom. These students will be our doctors, lawyers, and even our caregivers one day. They may be the adults who provide valuable contributions, such as finding a cure for a deadly disease or a wonderful contribution to the arts. If their minds are not stimulated, if they drop out of school, available opportunities will diminish as adults (Gallagher, 2002; Russo & Harris, 1996).

On the other hand, no one has questioned the needs of students with disabilities. It is common practice that these students receive extra programming, or accommodations, above and beyond the traditional classroom setting. This speaks to the term vertical equity. Vertical equity’s premise is this: “…unequal treatment of unequals in order to make them more equal” (Gallagher, 2002, p. 10). This policy can be seen in programs such as Head Start and Title 1. Such a policy is geared toward leveling the playing field, so all students can achieve to the best of their abilities and have a shot at a great life. This commitment to equity of all students, however, should not hinder gifted students. They, also, need equity; they should not be limited by a norm (Gallagher, 2002).

Horizontal equity is a related term which refers to students with comparable needs in one school system receiving the same services as students with comparable needs in another school system. This speaks to the inequity among gifted services in more urban, affluent schools vs. gifted services in more rural, poorer schools because too often states are not mandating, or even providing funding for, gifted programs (Gallagher, 2002). According to the U.S. Department of Education, only about two cents of every one hundred dollars is spent on gifted education (Willard-Holt, n.d.). Gifted education is not a federal government priority today, as is special education, so there is a lack of uniformity in services provided.

Legislation

It appears that the best route for gifted education to be afforded special education rights, or privileges depending on how the definitions are interpreted, is to go through the judicial system. IDEA (1997) states that a free and appropriate public education will be available for all children with special needs. The Marland Report of 1972 provides that gifted children require services that are not normally granted in a regular education setting in order to realize their contributions to themselves and society (Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002).

With that being said, there is currently only one federal law on the books that relates to gifted education, the Jacob K. Javits Act of 1988. The goals stated in the Javits Act include providing financial assistance for gifted programs and building a nationwide capability in schools to support the educational needs of gifted students. The Javits Act was most likely a reaction to the National Commission on Excellence’s report entitled A Nation at Risk (1983). That report told a harrowing tale of how more than half of gifted students were underachieving, and one-fifth of all high school dropouts were gifted. So, the Javits Act was celebrated for recognizing the needs of gifted students and the need for gifted education programs in our schools; however, it did not mandate anything. It did not mandate the creation of special programs for the gifted, and it did not provide due process rights (Willard-Holt, n.d.).

More recently, however, Congress approved funding for the Javits Act in the amount of $7.46 million for fiscal year 2010, which was also the amount approved for FY2009 (National Association for Gifted Children, 2009; Council for Exceptional Children, 2009). This funding will allow the National Research Center on the Gifted and Talented to continue its efforts, and competitive grants will still be offered. However, it is not enough money to provide for statewide grants (National Association for Gifted Children, 2009). The Council for Exceptional Children was hoping to see funding for the Javits Act increased to $20 million for FY2010. Even with that increase, though, they felt it would have only begun to support a nationwide gifted program (Council for Exceptional Children, 2009).
In Pennsylvania in 1979, the case of the Central York School District v. Department of Education determined that gifted and talented students fit the definition of exceptional people. This led to another Pennsylvania court case entitled the Centennial School District v. Department of Education (1986). It was ruled in this case that an Individualized Education Plan (IEP) was appropriate for gifted students, since they are considered exceptional, just like students with disabilities (Pennsylvania Code, n. d.; Willard-Holt, n. d.).

Connecticut, however, has a different take on the definition of exceptional children as stated in IDEA (1997). In Broadley v. Board of Education, the state supreme court ruled that just because a child is gifted, the same rights that are afforded to students with disabilities do not apply. Connecticut works under the premise that special education services for the gifted are permissible, but not mandatory. Part of their state’s definition of an exceptional child says that the exceptional child is one who is unable to “progress effectively” in a regular school program, and it was determined that this particular gifted student was able to progress effectively; therefore, no special education services were required. Localities in Connecticut are able to decide for themselves how far they are willing to take the education of their gifted students (Willard-Holt, n. d.).

Conclusion

It is plain to see how this debate will continue for decades to come. Everyone seems to have a position. Through the research and through my own experience, I have come to the conclusion that special education programming for the gifted is most definitely a right that should never be considered a privilege. The federal government has got to get on the horn and ensure, through laws, that gifted education is included in such acts as IDEA and in such definitions as “exceptional students.” Our nation is going to lose these students if our schools do not strive to meet their needs.

Whatever happened to the urgency of educational excellence that the country felt after Sputnik? The same ideas, or even fears, that we faced back then still apply today. In 1957, the country was concerned about Russia spying on us or even dropping nuclear weapons on us from space. The United States has foes of a different sort these days. Terrorism abounds in the world today. Hatred of Americans runs deep among various world populations. Our country found out just how vulnerable we were to attack by these terrorists in September of 2001. The anthrax scare of November 2001 was almost as scary for us. Today, the swine flu pandemic is a continuing threat to our nation’s children. We have got to put excellence in education at the forefront once again. Our nation’s schools have got to produce extraordinary thinkers and problem solvers if the United States is going to maintain its status as a great world power. We need to strive for the eradication of disease; we need to find a way to put down our enemies without extensive loss of life. Can it be done? We may never know if our gifted students are not provided with the individualized education that they need to excel, to rise above the norm set by individual states.

On March 10, 2009, President Barack Obama acknowledged that the United States must provide every child with an education predicated on knowledge and innovation if we are going to be competitive in today’s global economy. He stated that schools need to be held accountable for educating all students in such a way that they will rise to the demands of a 21st century workforce (National Association for Gifted Children, 2009). The curiosity after hearing those statements lies in how he, as this country’s president, is prepared to see those particular dreams realized without the proper funding and equity in the federal laws.

The cement ceiling that so many of our students bang their heads against has got to be broken. Status quo should not be an option in today’s society. Every gifted student has a right to achieve to his or her greatest potential.

References


Giftedness as Intimations of Immortality

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What though the radiance which was once so bright
Be now for ever taken from my sight,
    Though nothing can bring back the hour
Of splendour in the grass, of glory in the flower;
    We will grieve not, rather find
Strength in what remains behind;
    In the primal sympathy
Which having been must ever be;
    In the soothing thoughts that spring
Out of human suffering;
    In the faith that looks through death,
In years that bring the philosophic mind.


Turner Classic Movies channel recently showed the film, Splendor in the Grass (1961). It had the above mentioned lines from William Wordsworth as the central theme. The time and place was rural Kansas just prior to the depression of 1929. The cast included Warren Beatty and Natalie Wood. The writer was the dramatist, William Inge (who also wrote the screen plays for Bus Stop, 1955 and Picnic, 1956) and the Director was Elia Kazan. I was so impressed that a classic of American cinema was influenced by an English Romantic poem written over two-hundred years ago that I re-read the collected poems of William Wordsworth (1770-1850). The process of reading and analyzing this particular poem would be an important cognitive and emotional experience for any gifted student.

Giftedness is a basis for Intimations of Immortality. Wordsworth uses the term “immortality,” not only in its religious sense but also philosophically and esthetically. The gifted have an understanding of intimations of creativity, beauty and value. In a similar sense to Wordsworth, a gifted person does not take nature for granted. For example, the rose is more than an object of beauty; it is also an insight into the wonders of creation – thus a confirmation of life.

This poem can help gifted students appreciate on a deeper and more profound level the importance of thought and creativity. In fact, one of the best ways for comprehending the sensibility of giftedness is by studying poetry that has “emotion recollected in tranquility” (Wordsworth, Preface to the Second Edition of Lyrical Ballads, 1800). Scientific creative minds such as Isaac Newton and Albert Einstein functioned with a similar sensibility.
Another English Romantic poet, John Keats (1795-1821), who was influenced by Wordsworth, continued this sensibility of Intimations of Immortality. In his poem, *Ode on a Grecian Urn* (1819), Keats wrote an immortal line that has continued to resonate with his readers. “‘Beauty is truth, truth beauty,’” he wrote. “that is all/Ye know on earth, and all ye need to know.’ Instead of using a “tricky dog” format of creative skills games to teach the gifted, there are many exemplars of the creative sensibility that exist in such poets as Wordsworth and Keats.

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