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Seon-Young Lee, Michael S. Matthews and Paula Olszewski-Kubilius
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A National Picture of Talent Search and Talent Search Educational Programs

Seon-Young Lee  
Northwestern University

Michael S. Matthews  
University of South Florida

Paula Olszewski-Kubilius  
Northwestern University

Abstract: This article presents a comprehensive portrait of talent search testing and associated educational programs in the United States, now some 35 years after Dr. Julian Stanley originated the concept. Survey data from the six major talent search centers in the United States were used to examine the scope of talent search educational offerings, including accelerated summer, distance education, Saturday and weekend, and leadership programs. Reported data reveal that over 3 million students have participated in talent search testing since these programs’ inception, and subsequently thousands of these students participate each year in other educational programs offered by these organizations. In addition to above-level test scores, data used to prequalify students to participate include on-level standardized achievement tests, teacher or parent nominations, and portfolios. Disproportional representations within talent search testing and educational programs by racial and household income levels were addressed with a need for more financial support and collaborative work between talent search centers and local schools for more students to benefit from the talent search model.

Putting the Research to Use: For academically gifted students, the use of talent search testing and associated outside-of-school educational programs has grown rapidly over the past decades to optimize talent development. Though positive outcomes of talent search testing and subsequent educational programs have been consistently documented in literature, research findings have relied exclusively on participants from certain talent search centers. This research is the first study aggregating data from six major talent search centers in the U.S. since the inception of talent search testing. This study includes nationwide data regarding participation in talent search testing and associated educational programs, student demographics, and special educational services offered by each talent search center. Particularly for educators and parents, this study will help to identify and foster students’ gifted abilities by using appropriate educational testing and programs in early ages.

Keywords: talent search; talent search educational programs; talent search centers

Publications spanning more than 30 years have chronicled the origins and development of the talent search movement in the field of gifted education (e.g., Barnett, Albert, & Brody, 2005; Brody & Mills, 2005; Olszewski-Kubilius, 1998b, 2005; Putallaz, Baldwin, & Selph, 2005; Rigby, 2005; Stanley, 1973, 1978a, 1996; Tourón, 2005; Ybarra, 2005), and ongoing dissemination efforts have publicized the new knowledge about gifted students (e.g., Benbow, Perkins, & Stanley, 1983; Brody, 1998; Jarosewich & Stocking, 2003; Lubinski, Benbow, Shea, Eftekhari-Sanjani, & Halvorson, 2001; Olszewski-Kubilius, 1998a; Stanley, 1998; VanTassel-Baska, 1989).

Talent search began in the late 1960s when Julian Stanley, an eminent psychologist at Johns Hopkins University, was introduced to a young boy whose mathematical ability was well above the range that could be measured on grade-level tests. Stanley conceived of administering this student the math section of a college admissions test, the Scholastic Aptitude
Test (now called the Scholastic Assessment Test and referred henceforth in this article as the SAT). The student’s performance on this test suggested that he was capable of working far above his assigned grade level. In working with this student and later with many others through a grant from the Spencer Foundation (see Stanley, Fox, & Keating, 1972), Stanley was able to use above-level testing to diagnose areas of strength and weakness in academically advanced students’ math ability. He then was able to target instruction to the areas of weakness while eliminating redundant instruction in the students’ areas of strength. Stanley later named this approach Diagnostic Testing followed by Prescriptive Instruction, or DT→PI (Stanley, 1978b).

Stanley’s approach spread through word of mouth, and participation grew rapidly each year. In 1978, the staff at Johns Hopkins University expanded their program to include verbal ability, creating a Program for Verbally Gifted Youth based on the verbal section of the SAT (McClain & Durden, 1980). In 1979, Stanley established the Center for Talented Youth (CTY) at Johns Hopkins University to administer the annual talent search program he had developed (Charlton, Marolf, & Stanley, 1994).

Branching Out

By the end of the 1970s, the program at Johns Hopkins University was well established. In the early 1980s, other sites across the country began to replicate the talent search model. The first of these new programs was the Talent Identification Program (TIP), founded at Duke University in 1981. Shortly after the founding of Duke TIP, talent search programs were founded at Northwestern University (the Center for Talent Development) and at the University of Denver (the Rocky Mountain Talent Search). In the late 1980s and the early 1990s, two additional talent search programs were founded at the University of Iowa and at Carnegie Mellon University in Pennsylvania.

Benefits of Talent Search

The initial purpose of talent search testing was straightforward: It provided a means of identifying students who would benefit from educational acceleration. Stanley’s idea arose from the belief that children needed to take tests commensurate with their abilities, developmental rates, and pre-existing knowledge and skills, rather than solely according to their chronological age or grade levels in school. The goals of talent search programs have broadened over the years to include more than testing alone, and talent search programs now may include the following components: (a) above-level testing for the diagnosis and evaluation of the area and level of students’ abilities (using e.g., SAT, ACT, or EXPLORE); (b) educational placement for individual students based on test scores; (c) access to further talent development opportunities such as weekend programs, summer programs, contests, competitions, or distance education programs; and (d) guidance delivered via newsletters, magazines, conferences, and sometimes through individualized counseling.

Research with talent search students has supported the effectiveness of Stanley’s approach. Much of this work has investigated the effects of talent search participation on students’ attitudes toward school. Attitudinal outcomes include developing a better understanding of the nature of their academic abilities (Ablard, Mills, & Hoffhines, 1996; Assouline & Lupkowski-Shoplik, 1997; Brody, 1998; Jarosewich & Stocking, 2003; VanTassel-Baska, 1989) and reporting higher educational and career aspirations (Benbow & Arjmand, 1990; Brody, 1998; Burton, 1988; VanTassel-Baska, 1989; Wilder & Casserly, 1988).

Students also evidenced an advanced level of academic achievement subsequent to their talent search participation. For example, Barnett and Durden (1993) found that those students who participated in a talent search program reported acceleration in specific subject areas such as math and computer (48.4%) and English (23.6%); performed well (usually A to B+) on college-level math or computer courses taken in high school (also see Kolitch & Brody, 1992); graduated from high school almost 1 year earlier than their age-equivalent peers; and maintained a high grade-point average (3.4 on average) in college.

In addition, substantial evidence supports the positive effects of talent search educational programs...
Talent Search Today

The two-tiered talent search model of identification (e.g., qualifying via high performance on a grade-level achievement test, followed by above-level testing) continues to be used to gather more accurate information on the abilities of students who are already performing well on standardized on-level achievement tests. The additional information provided by talent search testing can be used to provide more appropriate placements and programs for these students, including interventions, such as grade or subject acceleration, in-class enrichment, dual-enrollment programs, weekend or summer programs, or distance-learning classes.

Recently, a subtle shift appears to have taken place in the rationale for the talent search programs. Talent search programs are now promoted as an essential tool through which students can come to understand and develop their unique individual potential (see Ablard et al., 1996; Achter, Lubinski, Benbow, & Eftekhari-Sanjani, 1999; Assouline & Lupkowski-Shoplik, 1997; Brody, 1998; Jarosewich & Stocking, 2003; Olszewski-Kubilius, 1998b; VanTassel-Baska, 1989). Although this is not a new idea, it seems to have gained currency over the past decade or so.

The relationship between talent search programs and schools is also beginning to change. Historically, few schools used talent search scores for any purpose. Talent search centers now are working to encourage schools to take advantage of the information they can provide about students, chiefly through sharing students’ talent search scores with schools, but also by offering additional informational literature. The aim of these practices is to encourage schools to use talent search scores as a vital component of their local programming, to provide education that is truly commensurate with students’ abilities. Yet the number of schools that systematically use talent search scores to qualify students for in-school gifted programs or to design in-school educational programs remains relatively low, indicating a great need for further cooperation, communication, and articulation between the talent search centers and local schools (Olszewski-Kubilius & Lee, 2005).

Summary

Today, hundreds of thousands of students in the United States and an increasing number of students from overseas participate annually in talent search testing offered through the various talent search centers. Thousands of these students go on to participate each
year in educational programs run by these centers. In consideration of the great number of students who participate in talent search testing and associated educational programs, and given the substantial amount of research supporting the positive effects that these have for gifted students, we believe that it is valuable to compile data from these centers to gauge the cumulative impact of the talent search model on the education of gifted students over more than three decades since the model’s origination.

This article presents a comprehensive portrait of the current status of talent search testing and associated educational programming within the United States, today some 35 years after Stanley originated the concept. Two major purposes of this article are to examine the scope and range of talent search programmatic offerings, including summer, distance learning, weekend, and leadership programs; and to examine how many students are being served by talent search testing and educational programs nationwide. By presenting these data, we hope to increase awareness of the impact of the talent search model on the field of gifted education and to encourage researchers and talent search programs alike to consider collaborating with one another to design effective investigations related to the nature and needs of academically gifted youth.

Method

Participants

Six talent search centers\(^1\) participated in this study. These included the Carnegie Mellon University Institute for Talented Elementary and Secondary Students (C-MITES), the Center for Talent Development (CTD) at Northwestern University, the CTY at the Johns Hopkins University, the Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development at the University of Iowa, the Rocky Mountain Talent Search at the University of Denver, and the TIP at Duke University. All of these talent search centers are nonprofit educational organizations affiliated with leading universities in the United States.

The C-MITES was founded in 1992 with the goal of providing various educational services for young academically talented students in the state of Pennsylvania. Through its talent search, summer and weekend programs, and academic services (including individual test report interpretation, educational materials, newsletter, training, workshops, parent informal meetings, etc.), C-MITES has served over 17,035 academically talented students and their families.

Since 1981, the CTD at Northwestern University has assisted close to a million families with gifted students of ages 4 to 18, primarily in the Midwestern states. CTD offers a variety of learning alternatives for academically gifted students, including summer programs, Saturday enrichment classes, distance education programs, leadership programs, special programs for underserved gifted students (i.e., Project EXCITE), informational conferences for parents and educators, and graduate courses. CTD is the first university-based gifted center accredited as a special function school of the gifted by the North Central Association of Colleges and Schools, which allows the Center to grant credit for high school courses completed successfully by students.

The CTY at the Johns Hopkins University has tested nearly one million academically gifted students and has served over 100,000 students through its academic programs since 1979. CTY was established to serve gifted students, families, teachers, school districts, and government agencies, to work to identify and nurture academic talent at the precollegiate level. Programs offered by the center include talent search, summer, distance education, weekend, and leadership programs, and the Study of Exceptional Talent program (a counseling program for extremely talented students in math or verbal areas).

The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development was established at the University of Iowa by the State of Iowa Board of Regents in 1988. The vision of the center is to inspire and serve the worldwide gifted community of students, educators, and families through exemplary leadership in advocacy, programming, and research. Programs provided by the center include talent search testing, summer programs, weekend programs, leadership programs, and Iowa Excellence (a math and science enrichment program for rural middle school students).

The Rocky Mountain Talent Search (RMTS) is a self-supporting program offered through the College of Education’s Office of Academic Youth Programs at the University of Denver. Since 1981, RMTS has served students in the states of Colorado, New Mexico, Utah, Wyoming, Nevada, Idaho, and Montana through its talent search and summer programs, providing them with opportunities to learn more about their academic abilities and about the educational programs and services that are available for academically bright students in their local regions.
The TIP at Duke University was founded in 1980 through a grant from the Duke Endowment. The program’s purpose is to identify academically gifted children, to provide them with the opportunity to learn more about their abilities, and to make available resources to nurture their academic and social needs. The TIP works primarily with students from 16 states, most of which are located in the Southeastern United States. In addition to talent search testing, Duke TIP’s academic offerings include summer, independent learning (including distance education), leadership, Pre-College (allowing to take college courses on campus), and Field Studies (on-site learning program in science and humanities) programs. Well over one million students have participated in talent search testing and other educational programs since the TIP’s inception.

Survey Instrument

There is a great deal of information available in promotional literature published by the talent search centers themselves, although it can sometimes be difficult to access and organize these materials. To address this difficulty, research fellows at two talent search centers developed a survey titled “Contributions of Talent Search Research to Gifted Education.” The survey consisted of 33 items about talent search testing and other educational programs (e.g., summer, weekend or Saturday, distance education, leadership, and so forth). Survey questions focused on the number of students served in each program; demographic information on program participants; qualifications for entrance to the programs; financial aid offered; and other special or unique educational services, including direct service programs and informational resources offered to participating students.

The survey included five items related to talent search testing. These questions concerned the year when the first talent search took place, the number of participants in the first year, the number of participants over the past 4 years, the number of participants since the talent search’s inception, and the cumulative number of students who received fee waivers over the past 2 years.

Other survey questions requested information about educational programs offered by the talent search centers. These asked about the cumulative number of students who had participated in each program since its inception as well as for the 2003-2004 academic year, the grade levels of students served in the program, the nature of the program (accelerative vs. enrichment), and whether students could become eligible to participate via alternative qualifying methods (i.e., means other than scores on above-level tests such as the EXPLORE, SAT, or ACT).

Two items concerned the financial aid each program offered. These asked about the number of students receiving scholarships within each program and the amount of scholarship money awarded from the centers’ operating budgets (i.e., not including aid provided by external grants).

For both talent search and all other educational programs, respondents were also asked to report the student participants’ demographic characteristics (e.g., gender, grade, ethnic background, household income, and parents’ education levels) if known, and to describe the types of tests or measures (e.g., state-level tests, standardized achievement tests, parent or teacher nominations, portfolios, or other means) used to qualify students to participate in the program.

Finally, nine questions requested information about other services provided to gifted students, their families, or their teachers. These could include contests or competitions, print resources, magazines, newsletter, award ceremonies, conferences, counseling, professional development training, or other similar services.

Data Collection and Analysis

Survey respondents were program coordinators, associate directors, or directors at each talent search center who were knowledgeable about the centers’ offerings and were experienced providers of programs for gifted students. The survey was mailed out to five talent search centers (excluding CTD where the survey was handed over to each program coordinator in person) in September 2004, preceded by a letter requesting permission to conduct the survey. Each talent search center responded and returned the survey to the CTD research department by October 2004. Questions filled out incompletely by some respondents were asked again via e-mail from spring to summer 2005 to obtain more complete information about these centers.

Descriptive statistics were computed for aggregated numbers of participants, means, and percentages. We also reported low and high responses for selected items to capture the range of variation between the talent search centers. Most of the percentages we report are averages based on the responses received from all six centers. Aggregated data based on fewer responses are reported for some
items (e.g., household income, parents’ educational levels) or programs (e.g., leadership) because some data were not present at all centers or were not available across all six of the programs surveyed.

Results

Talent Search

Participation since inception. Talent search centers were founded and above-level testing was first conducted in 1979 (n = 1), 1981 (n = 3), and 1992 (n = 2). The cumulative number of student participants since the inception of talent search testing across talent centers is 3,279,938, with a range from 22,000 to 1,527,898 for individual centers. Aggregated numbers of students who participated in talent search testing in recent years are as follows: 249,070 (range 2,462 to 120,027 per center) for 2002-2003 and 239,708 (range 2,366 to 111,946) for 2001-2002. Thus, nearly a quarter million students annually in the United States now voluntarily test through the talent search model (see Figure 1).

Financial aid. Over the past 2 years, 37,985 (range of 67 to 30,255 for individual centers) students received fee waivers for talent search testing across the six talent centers, representing 7.01% of students on average (range .01% to 16.9%).

Participation in 2003-2004. Of 239,257 (range 1,797 to 115,161) students who participated in talent search testing in the 2003-2004 academic year, 52.4% were males and 47.6% were females. The majority (67.8%) of the students were in grades 7 (53.9%) and 8 (13.9%), and 29.3% of the students were in grades 4 through 6 (12.1%, 10.9%, and 6.3%, in grades 4, 5, and 6). Less than 2% of the students were either in grades 2 to 3 (1.5%) or 9 (1.2%).

An overwhelming number of students (based on 96.8% of the sample who reported ethnicity) participating in talent search testing were Caucasian/White (76.5%), followed by African American/Black (9.8%), Asian/Pacific Islander (6.3%), Hispanic/Latino (4.3%), multiracial (2.0%), and Native Alaskan/American Indian (1.4%). National Population Estimates (2004) reported that as of 2004, racial proportions in the United States consisted of 80.4% Caucasian/White, 14.1% Hispanic or Latino, 12.8% African American/Black, 4.2% Asian, and 1.0% American Indian/Alaskan Native. Thus, based on these figures, Hispanic/Latino students are underrepresented in talent search testing to a greater degree than any other ethnic group, and African American/Black students are also underrepresented. Asians, the third largest ethnic group participating in talent search testing, participate in greater proportion than their national presence would suggest and are proportionately overrepresented in talent search programs.

Average household incomes of talent search students, based on two centers responding, were 38.7% at $80,000 or above, 16.7% at $50,000 to $79,999, 12.0% at $21,000 to $49,999, 3.1% at less than $20,000, and 29.5% not responding. Sources from current population reports (DeNavas-Walt, Proctor, & Lee, 2005) revealed that the median U.S. household income in 2004 was $44,389, with the following percentage distributions: 28.3% under $25,000, 45.0% from $25,000 to $74,999, and 26.7% above $75,000 per year. Based on these numbers, we suggest that the majority of talent search participants do in fact come from the families of higher-than-average household incomes, compared to the national figures.

Five of the six talent search centers used standardized achievement test results as a primary method to qualify students to participate in talent search testing, with other methods such as state-level tests and teacher or parent nominations each in use at four centers. One remaining center responded that they used only the Iowa Tests of Basic Skills for this purpose.

Other Educational Programs

Of the six talent search centers surveyed, all had summer programs, five had weekend and Saturday
programs, and four had distance education programs and leadership programs. A total of 33,874 students were served in these educational programs during the 2003-2004 academic year (see Figure 1). Slightly more male students than female students participated in each program (except for leadership programs), with the majority of students being of Caucasian/White ethnicity, followed by Asian/Pacific Islanders. Generally Asian participants are the second largest ethnic group across the talent search educational programs, but not in talent search testing where African American/Black students make up the second largest ethnic group. The gender and ethnicity of students participating in each program type are presented in Figures 2 and 3.

Financial aid. Four centers responded that they provided students with scholarships annually out of their operating budgets (i.e., not including grants) for these programs. On average, annually, 7.3% (range of .09% to 11.9% for individual centers) of participating students received scholarships to participate in talent search educational programs. Generally, on an annual basis, the total number of students receiving scholarships for these educational programs at four of the six talent centers was 3,533 (range 20 to 2,212 for individual centers), with a total amount of $4,339,268 (ranging from $5,500 to $3,299,391 for individual centers) distributed through these awards out of talent search centers’ operating budgets.

Summer Programs

Participation since inception. A total of 185,455 students (range 3,700 to 116,878) of ages 4 to 18 have participated in summer programs through the six talent centers since their inception. Four centers reported that their summer programs were composed of both acceleration and enrichment, while two centers reported offering enrichment only. All six centers used cutoff scores on the above-level tests (e.g., SAT, ACT, or EXPLORE) as entrance criteria for their summer programs. For students who did not have these scores, other tests or measures were also allowed. These included teacher recommendations (four centers); standardized, grade-level achievement tests (three centers); student portfolios (two centers); report cards or transcripts (two centers); graded writing samples (two
Distance Education Programs

Participation in 2003-2004. An estimated 15,685 students (range 252 to 9,766), 54.5% males and 45.5% females, participated in summer programs across the six centers during the 2003-2004 academic year. The majority (54.1%) of students were in grades 7 through 9 (15.5%, 19.5%, and 19.1%, in grades 7, 8, and 9), about a third (31.9%) were in grades 3 through 6 (4.8%, 7.8%, 10.1%, and 9.2%, in grades 3, 4, 5, and 6), and the remaining 14.0% were in grade 10 or above.

Based on 87.2% of the sample who reported ethnicity, about 54.0% of the students were Caucasian/White, followed by 33.6% Asian/Pacific Islander, 5.6% African American/Black, 5.6% Hispanic/Latino, and 1.2% Other including Native/Alaskan/American Indian.

Saturday and Weekend Programs

Participation since inception. Five talent search centers reported serving students from ages 4 to 18 in Saturday and weekend programs. A total of 117,942 students (range 2,764 to 81,318) had participated in these programs since their inception. These programs were described as enrichment-only by two centers and as both enrichment and acceleration by three centers. The talent search SAT, ACT, or EXPLORE scores were used for entrance, along with in-grade standardized achievement tests (three centers), teacher nominations (two centers), parent nominations (two centers), self-nominations (one center), a record of past participation in the weekend program (one center), placement in a gifted program (one center), and identification as academically gifted in school (one center). One center also responded that all of their talent search participants are allowed to enroll in their weekend programs.

Participation in 2003-2004. Of 10,263 (range 257 to 4,035) students who participated in Saturday and weekend programs during the 2003-2004 academic year across five centers, more males (56.3%) than females (43.5%) participated. Nearly half (46.8%) of the students were in grades 4 (18.0%), 5 (10.6%), and 6 (18.2%); about a third (34.4%) of the students were in grades 7 (12.6%), 8 (14.3%), and 9 (7.5%); and the remaining 18.9% of the students were in grade 3 or below (12.3%, 3.9%, 2.3%, and 0.4%, for grades 3, 2, 1, and kindergarten). As in the programs already described, most students who participate in these programs identified themselves as Caucasian/White (72.4%), followed by Asian/Pacific Islander (12.3%), Other including multiracial and Native/Alaskan/American Indian (5.9%), African American/Black (5.6%), and Hispanic/Latino (3.8%). These percentages were based on 78% of the sample who reported ethnicity. In addition to scores obtained through talent search testing, the centers also reported using teacher or parent nominations (two centers), students’ participation in talent search testing (two centers), students’ scores on an in-grade achievement...
test (one center), portfolios (one center), a record of past participation (one center), placement in a gifted program (one center), identification as academically gifted by local schools (one center), and the center’s own evaluation (one center) to qualify students to participate in their Saturday and weekend programs.

Leadership Programs

**Participation since inception.** Since their inception, 1,898 (range 150 to 1,100) students ages 12 to 18 have participated in leadership programs offered at four of the six talent centers. All leadership programs were enrichment oriented and used above-level tests for qualification. Other criteria used for entry to leadership programs include recommendations by the teacher or school (three centers), student essays (three centers), student portfolios (three centers), grade reports including GPAs (two centers), scores on the PSAT (one center), students’ self-nomination (one center), teacher ratings (intellectual ability, motivation, and personal characteristics of the student; one center), students’ resumes (one center), and students’ participation in extracurricular activities (one center).

**Participation in 2003-2004.** In the 2003-2004 academic year, 458 students (range 38 to 263) participated in leadership programs offered by the talent search centers. More females (61.3%) than males (38.7%) took part in these programs. Grade levels of students based on data from two of the four talent search centers having leadership programs averaged 19.5% in grades 7 through 9 and 80.5% from grades 10 through 12. Based on 97.4% of the sample who reported ethnicity, Caucasian/White students (65.9%) were the largest ethnic group, followed by Asian/Pacific Islander (16.1%), African American/Black (9.1%), and Hispanic/Latino (8.8%). Thus, leadership programs appear to have the strongest presence of African American and Latino students of the program types studied and a quarter percentage of females compared to males, unlike most other talent search programs. In addition to scores on the SAT, ACT, or PSAT, the talent search centers also used the following resources to select leadership program participants: portfolios (two centers); teacher or school nominations (two centers); self-nomination (one center); GPA from transcripts (one center); teachers’ ratings about students’ intellectual ability, motivation, and personal characteristics (one center); students’ resumes (one center); and an application essay (one center).

In addition to the programs described above, there are several educational programs that are unique to a single talent search center. These include offerings such as Iowa Excellence, PreCollege, Project EXCITE, and Study of Exceptional Talent (SET).

**Iowa Excellence at the Belin & Blank Center.** With the support of federal grant funding, the Iowa Excellence program is designed as part of the outreach efforts of the University of Iowa’s Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development. The goal of this program is to increase inspiration and opportunities for rural middle school (grades 6 and 7) students in advanced math and science curriculum in partnership with Iowa school districts. Classes focus on enrichment and typically include advanced math and science taught before or after regular school hours. The total class time involved is 96 hours, spread over one academic year. The cumulative number of students ages 11 to 13 (51% in grade 7 and 49% in grade 6) participating in the program is 204 since its inception, including 99 in the 2003-2004 academic year. More male (55%) than female (45%) students have participated in the program, qualifying for the program by their scores on the EXPLORE test as well as through teacher nominations.

**Project EXCITE at CTD.** Project EXCITE is a collaborative program of Northwestern University through its CTD and local elementary and high school districts in Evanston, Illinois. The goal of this program is to increase the number of minority students in advanced math and science programs at the high school and ultimately to close the gap in academic achievement between minority and majority students by bolstering the achievement of gifted minority students. Classes may be composed of either enrichment or acceleration. A total of 79 students (including 26 students in the 2003-2004 academic year) between ages 8 and 12 have participated in the program since its inception, qualifying by scores on the Naglieri Nonverbal Ability Test, the Iowa Tests of Basic Skills, and teacher nomination. Fifty-three percent of the students were males and 47% were females in grades 4 (29%), 5 (26%), 6 (19%), and 7 (26%). Participating students were primarily African American/Black (86%) with the remainder being Hispanic/Latino (14%).

**SET at CTY.** The SET program at the CTY at Johns Hopkins University is designed for extremely talented students who score at least 700 on either the SAT–math or the SAT–verbal before the age of 13. For students from ages 12 to 18, SET functions as a counseling service to provide appropriately challenging academic opportunities. SET does not offer courses for students but rather refers the students to various programs that
match their interests and exceptional abilities. Students also receive a bimonthly magazine and newsletter for academically talented youth and participate in networking programs such as a listserv and a mentoring program that create connections with other gifted students from across the country. The cumulative number of participants since the inception of SET is 3,942. No information about these students’ gender, grade level, or ethnicity was available; the interested reader may wish to consult the SET Web site at [http://www.jhu.edu/~gifted/set/](http://www.jhu.edu/~gifted:set/) for more information about this program.

**PreCollege at TIP.** The PreCollege program offered through the TIP at Duke University provides academically gifted students ages 16 to 17 with an opportunity to experience the academic and residential environment of a nationally selective university before finishing high school. Students are allowed to choose 2 of the more than 60 courses (encompassing acceleration and enrichment) offered for undergraduates during the university summer session and earn a grade and course credit applicable to a degree at the university if they subsequently are accepted into a degree program. Qualification for the program is based on students’ scores on state-level tests along with portfolios and teacher nominations. For students who have not taken state-level tests, performance on the PSAT is used instead. Since the program’s inception, 2,425 students have participated, including 91 students in the 2003-2004 academic year. These students were 58% males and 42% females; their ethnicity was 56.4% Caucasian/White, 11.9% Asian/Pacific Islander, 9.9% African American/Black, 5.9% Hispanic/Latino, 1.0% Native/Alaskan/American Indian, and 14.9% Other.

**Educational Services for Gifted Students, Families, and Educators**

The talent search centers serve not only gifted students themselves but also their families and their teachers. These additional services include contests and competitions, special programs for underserved students, career and educational counseling, recognition ceremonies, parent seminars and workshops, educator programs, conferences, courses including degree programs, and print resources.

**Contests and competitions.** Information about contests and competitions is announced to students in different ways. One center publicizes this information through its general print resources, while another publishes an annual interpretive guide and a summer opportunities guide. Some centers host competitions themselves; one is a host for the American Regions Mathematics League and coordinates the Invent Iowa program.

**Services for underserved populations.** In collaboration with the Jack Kent Cooke foundation, four centers have served academically capable youth having demonstrated financial need through the Young Scholars Program. This program provides participating students with individualized educational services, which may include financial support for enrollment in academic programs; equipment purchases to develop musical or artistic talents; access to mentors, internships, and tutors; and academic, college, and career counseling. One center also offers an additional academic program targeting gifted minority students in grades 3 through 8, providing these students with mentors or tutors.

**Career and educational counseling.** Two centers have provided participating students with access to counselors, opportunities to complete interest inventories, and exposure to working professionals. Another center offers a college colloquium and career symposium as 1-day events for parents. In addition, there are various educational counseling services provided by the centers or through the centers’ academic programs. Examples of services provided directly by the centers are the Jack Kent Cooke Young Scholars Program (four centers), assessment and counseling clinics (two centers), and the SET program (one center).

**Recognition ceremonies.** For talent search participants, award ceremonies honoring those who score high on the SAT or the ACT (five centers) are held annually. These events include regional, state, and local ceremonies.

**Parent events.** The talent search centers hold conferences, workshops, or seminars for parents only or for both parents and children together to provide families with educational information. These programs may include joint weekend workshops for parents and children (one center), Saturday or evening seminars for parents (one center), and summer conferences for families (one center).

**Educator programs.** For educators, the talent search centers have provided workshops (three centers), annual conferences (two centers), and Advanced Placement summer institutes (two centers). Two centers offer degree programs in gifted education or talent development, and one center offers an endorsement program.
Print resources. For gifted students, their families, and educators, the talent search centers publish a wide variety of print resources, including regularly scheduled magazines and newsletters. The talent search centers also provide print resources for students participating in talent search testing. Such resources include listings of educational programs for gifted students (e.g., Educational Opportunity Guide, Planning and Resource Guide), listings of contests and competitions, and newsletters that include articles by gifted education experts, recommendations to parents about issues related to talent development, and interpretive information regarding the meaning and use of above-level test scores.

Summary and Discussion

The major numerical findings of this study, summarized below, underscore the tremendous impact that talent search testing and talent search educational programs have made on the education of gifted students in the United States:

1. Since its development, over three million students have participated in talent search testing sponsored by the six major talent search centers in the United States.
2. Each year, nearly 240,000 students are tested via talent search in the United States.
3. During the 2003-2004 academic year, approximately 33,900 students participated in the various talent search educational programs, which consist of summer, distance education, Saturday and weekend programs, and leadership programs.
4. Annually, about 15,700 students participate in summer programs offered through the six talent search centers, followed by 10,300 students in Saturday and weekend programs at five centers. Four centers also offer distance education and leadership programs, and approximately 7,500 (distance education) and 460 students (leadership) now enroll in these programs each year.

In addition to quantifying the numerical impact of the talent search programs, we also have been able to provide an overview of the variation that occurs within the programs that follow this model.

Besides the use of the above-level tests (e.g., SAT, ACT, EXPLORE, PLUS) that form the primary component of the talent search identification model, these programs have also piloted other means of identifying talented students. For the initial qualification for talent search testing, standardized achievement tests are predominantly used, while various other criteria are also used for entrance to the talent search educational programs. For example, teacher and school recommendations are often used for summer, Saturday and weekend, and leadership programs. In-grade standardized achievement tests are also used to gauge the potential for success of those students wishing to enroll in distance education and summer programs. Student portfolios are often used to qualify for summer and leadership programs, and parent nominations are widely used for entrance to Saturday and weekend programs. Talent search programs use identification criteria that are aligned with program offerings; scores on in-grade achievement tests are used for admission to enrichment-oriented weekend programs, portfolios are used for leadership programs, and scores on off-level tests are used for accelerated classes. Still, the identification criteria for programs are generally conservative, centering on indicators of academic achievement.

A slightly greater number of male students (about 55% on average) than female students have participated in talent search testing and its associated educational programs, such testing as summer, distance education, and Saturday and weekend programs. Females outnumber males only in leadership programs, where they make up about two thirds of program participants. The reasons behind this distribution do not appear to have been examined in the literature, so future investigations are needed to explain this observed difference.

The majority of participants in talent search testing and its educational programs are Caucasian/White. Particularly, Caucasian/White students outnumber other ethnic groups in talent search testing (76.5%), Saturday and weekend programs (72.4%), and leadership programs (65.9%). Asian students are the second largest ethnic group in summer, distance education, Saturday and weekend, and leadership programs, indicating that they are overrepresented in talent search educational programs compared to their proportion of the entire U.S. population. African American/Black students follow Caucasian/White students in the number of participants in talent search testing, but they remain underrepresented in other educational programs.

The persistent underrepresentation of Hispanic/Latino students in both talent search and related programs remains an important concern. Likewise, the fact that African American gifted students, even those testing through the talent search, are less likely than other ethnic groups to participate in subsequent educational programs is a cause for concern. For African American students, the pipeline to educational opportunities appears to narrow after initial identification. Future
research should address this phenomenon. It must be noted that the talent search programs are also working actively to promote equitable participation across ethnic groups, although as is true of many school-based gifted programs, progress in this area has been slower than one might wish.

Generally, students in grades 7 through 9 are the major participants in talent search (67.8%), distance learning (54.2%), and summer (54.1%) programs. Most (80.5%) of the participating students in leadership programs are high school–age students, whereas Saturday and weekend programs are primarily populated with younger students (65.7%)—elementary school age—than other educational programs.

Very limited data were available regarding the average household income of participants in talent search testing and related educational programs; these data were available from only two of the six centers. These responses appear to confirm that talent search participants come on average from the higher income brackets compared to national figures. Talent search participants come in at 55.4% with incomes of $80,000 or above, versus a national average of 26.7% at $75,000 or above. This raises the issue of the exclusivity of talent search educational programs (VanTassel-Baska, 1998), suggesting that due to their high cost, only a restricted group of gifted students benefit from the educational programs these organizations offer. School-based educators and talent search administrators need to work collaboratively to find ways to include more traditionally underrepresented gifted students in talent search testing. A recent study (Lee & Olszewski-Kubilius, 2006) revealed a promising finding that parent nomination might function as an alternative qualification method for talent search participation, particularly for students of certain ethnicities, namely Hispanic and Latino students, thus increasing these students access to gifted programs and services. This kind of practice will open up the pipeline of talent search testing and opportunities to more underrepresented students. However, testing agencies, talent search programs, and local school officials still need to find funds to support the participation of these students in talent search testing and subsequent programs. About 7.0% of the talent search participants received talent search fee waivers in recent years, and 7.3% of students received scholarships for participation in talent search educational programs during this time out of the centers’ operating budgets. In addition, talent search centers seek grants to support the participation of low-income students, particularly low-income, underrepresented minorities in their programs.

Talent search centers have developed varied educational programs to provide appropriate educational services commensurate with gifted students’ needs and abilities. These include programs with goals to provide students with an opportunity to experience university life during high school (e.g., PreCollege), programs that work to close the academic gap between majority and minority students (e.g., Project EXCITE), and programs that function as a counseling service for verbally or mathematically talented students (SET). Collaborative programs between the talent search centers and school districts (e.g., Iowa Excellence, Project EXCITE) offer a relatively new direction that appears to show promise as yet another way the talent search centers can improve the services that are available to academically talented students.

Future Directions

A few aspects of the talent search model have been singled out as needing more attention. A major concern of the talent search centers is the difficulty that students face in receiving appropriate academic services from their schools after talent search testing has identified their high academic ability (Lee & Olszewski-Kubilius, 2005; Olszewski-Kubilius, Laubscher, Wohl, & Grant, 1996; Vanderkam, 2003). This study reveals that annually, only a relatively small (14.2%, 33,874/239,257) proportion of students who tested via talent search actually participated in subsequent educational programs. This percentage may be misleading, however, because it does not include students who are served in school programs (Olszewski-Kubilius & Lee, 2005) or in gifted programs that are not sponsored by talent search centers. Indeed, most of the talent search centers enable students to access programs that they do not themselves sponsor by sharing their database of names with other organizations or running affiliated programs. Nevertheless, although talent search testing is currently a viable and effective means of identifying gifted students and connecting them with appropriate resources and programs, there is still lots of room for improvement in terms of the number of students served. In recent years, some talent search centers have obtained accreditation for their academic programs that allow them to award credit for successfully completed high school courses (e.g., the CTD, the CTY). Other programs have not sought accreditation but do provide extensive written feedback from course instructors (Matthews & McBee, in press) that students may use to petition their schools for academic credit based on their
summer program course of study. A recent follow-up study (Lee & Olszewski-Kubilius, 2005) showed a substantial increase (28.0% to 64.1% over an 8-year period) in the percentage of students who obtained credit for their summer programs after accreditation, yet found a decrease in the amount of credit (e.g., now overwhelmingly one semester rather than two semesters of credit) given by the schools. Both the schools’ own policy regarding credits for outside of school courses and the center’s accreditation status were found to be major factors influencing the likelihood of schools granting credit for summer coursework. Therefore, collaborative efforts between talent search centers and local schools to promote an understanding of the need for educational programs commensurate with gifted students’ abilities, as well as articulated policies supporting students’ access to and recognition of these challenging academic experiences, are clearly needed.

The talent search population at this time remains primarily Caucasian/White and middle to upper middle class, and these racial demographics are also characteristic of the associated educational programs we examined in this article. Less than 10% of student participants at present receive either fee waivers or scholarships for talent search testing or educational programs. The talent search centers have been working to recruit more low-income students by expanding their financial aid offerings, both for the talent search testing itself as well as for other affiliated educational programs. Also, the talent search centers have been successful in promoting the participation of traditionally underrepresented students through partnerships with corporate and foundation sponsors. We believe that in time, as these initiatives take hold and expand, more students with diverse backgrounds will be able to benefit from this proven testing model and the associated educational programs the talent search programs offer.

**Limitation of the Study**

We attempted to get as complete and accurate a picture of the programs and services being offered through talent search centers and the numbers of students being served in each. But our data, like in other self-reported survey data, are subject to errors and potential sources of bias. Also, we were not able to measure all of the subsequent effects of talent search testing, such as the extent to which students and families sought and used talent search and/or nontalent search related programs and services. Nor did we access how participation in talent search testing raised or changed parents’ or students’ expectation and consequently affected achievement as has been found for other supplemental gifted programs (Olszewski-Kubilius & Lee, 2004).

**Notes**

1. Descriptions about each center are presented in alphabetical order.
2. “Percentages do not add up to 100 due to rounding, and because Hispanics may be of any race and are therefore counted under more than one category” (U.S. Census Bureau (2001) and National Population Estimates (2004)).
3. Most of the talent search centers did not collect or were not available to provide data for household incomes for students participating in talent search educational programs. Thus, we included data available only for talent search testing but not for other programs in this article.

**References**


Economics and Statistics Administration, and the U.S. Census Bureau.


Seon-Young Lee, PhD, is a research assistant professor of the Center for Talent Development, School of Education and Social Policy at Northwestern University. She was a postdoctoral fellow of the Center for 2 years after her PhD from the University of Georgia. Her research interests encompass academic giftedness, talent development, psychosocial development of gifted students, and family and peer roles in talent development.

Michael S. Matthews, PhD, is an assistant professor of gifted education in the Department of Special Education at the University of South Florida in Tampa. He received his PhD in 2002 from the University of Georgia and served for 2 years as postdoctoral Research Fellow with the Duke University Talent Identification Program. His research interests include underachievement, assessment and identification of gifted learners, math and science achievement, and cultural and linguistic diversity issues in gifted education.

Paula Olszewski-Kubilius, PhD, is currently the director of the Center for Talent Development at Northwestern University and a professor in the School of Education and Social Policy. She has worked at the Center for over 20 years during which she has conducted educational programs of all types for learners of all ages, including programs for underrepresented gifted students. She has conducted research and published over 80 articles or book chapters on issues of talent development, particularly the effects of accelerated educational programs and the needs of special populations of gifted children. She has served as the editor of *Gifted Child Quarterly*, coeditor of the *Journal of Secondary Gifted Education*, and on the editorial review boards of *Gifted and Talented International, Roeper Review*, and *Gifted Child Today*. She also serves on the board of trustees of the Illinois Mathematics and Science Academy and the National Association for Gifted Children.