

RESEARCH

Report on an Educational Program
Department of Research and Accountability

GIFTED AND TALENTED (G/T) PROGRAMS 2005–2006

Houston Independent School District



HOUSTON INDEPENDENT SCHOOL DISTRICT

Board of Education

Manuel Rodríguez Jr., PRESIDENT

Diana Dávila

Harvin C. Moore, FIRST VICE PRESIDENT

Kevin H. Hoffman

Greg Meyers, SECOND VICE PRESIDENT

Dianne Johnson

Arthur M. Gaines Jr., SECRETARY

Lawrence Marshall

Natasha M. Kamrani, ASSISTANT SECRETARY

Abelardo Saavedra, Ph.D.
SUPERINTENDENT OF SCHOOLS

Carla Stevens
ASSISTANT SUPERINTENDENT
DEPARTMENT OF RESEARCH AND ACCOUNTABILITY

Laurie S. Zimmerman, Ph.D.
RESEARCH SPECIALIST

Renmin Ye, Ed.D.
APPLICATION SPECIALIST

Harry M. Selig and Chris Huzinec
RESEARCH MANAGERS

EXECUTIVE SUMMARY

GIFTED AND TALENTED (G/T) PROGRAMS 2005–2006

Program Description

Definition of Gifted and Talented (G/T)

According to the Texas Education Code §29.121 and the Houston Independent School District Board Policy, G/T students are “those identified by professionally qualified persons, who perform at, or show the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment. These are students who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society. Students capable of high performance include those with demonstrated achievement and/or high potential ability in any of the following areas:

- Exhibits high performance capability in an intellectual, creative, or artistic area,
- Possesses an unusual capacity for leadership, or,
- Excels in a specific academic field (Houston Independent School District, 2005a, 2005b).”

According to §29.123 of the Texas Education Code, the *Texas State Plan for the Education of Gifted/Talented Students* (Texas Education Agency, 2000) represents the accountability plan for state-mandated services regarding G/T students. There are five components that are addressed in the plan:

- Program Design,
- Student Assessment,
- Curriculum and Instruction,
- Professional Development, and
- Family-Community Involvement.

The state plan outlines three different performance measures that may be viewed as a continuum: *Acceptable*, *Recognized*, and *Exemplary*. All districts are

required to meet the accountability measures set forth under the *Acceptable* category. In addition, the state plan is to serve as a guide for improving program services. To accomplish this, districts and campuses may review the recognized and exemplary measures to improve student services that are not mandated (Texas Education Agency, 2000).

In HISD, G/T students were served through one of two programs implemented in 2005–2006:

- Board-approved Vanguard/Magnet programs or
- Neighborhood G/T programs.

Vanguard is a Magnet program that is district-wide in scope and open to all G/T students within HISD regardless of the home school to which they are geographically zoned. The Vanguard/Magnet program is designed to meet the needs of G/T students in grades K–12 by providing an environment for students to work with their cognitive peers. The Neighborhood G/T program is designed to meet the needs of G/T students in grades K–12 at their neighborhood (zoned) schools.

Purpose of the Evaluation

The purpose of this evaluation was to comply with state mandates requiring school districts to evaluate the effectiveness of the G/T program annually (TEC §11.251–11.253). Consequently, this evaluation focused on the degree to which the G/T program operated in compliance with the policies and procedures developed by the legal and administrative authorities. To accomplish this, the following research questions were addressed:

1. What evidence was there that a flexible system of viable program options that provided a learning continuum was developed throughout the district

and reinforced the strengths, needs, and interests of G/T students?

2. What evidence was there that the instruments and procedures used to assess students for program services measured diverse abilities and intelligences and provided students an opportunity to demonstrate their talents and strengths?
3. What evidence was there that curriculum and instruction met the needs of G/T students by modifying the depth, complexity, and pacing of the school program?
4. What evidence was there that all personnel involved in the planning, development, and delivery of services to G/T students had knowledge to enable them to offer appropriate options and curricula for G/T students?
5. What evidence was there that the district regularly encouraged community and family participation in services designed for G/T students?

During the 2005–2006 school year, the Gifted and Talented Peer Examination, Evaluation, and Redesign (PEER) Review Committee formed in order to examine and evaluate the program design and admission practices regarding the Vanguard and Neighborhood G/T programs and to report their findings and recommendations to the HISD Board of Education. The following objectives were addressed:

- Conduct a program review of the effectiveness of G/T Neighborhood and Vanguard programs,
- Review current program designs,
- Address the admissions policies and specifically the tier system and sibling policy.

During the three-month process, the committee received input from a number of sources, including interviewing parents of children in both G/T programs. This input was incorporated in the findings and recommendations put forth by the G/T PEER Review Committee. Findings and recommendations may be found on the HISD website (Gifted and Talented PEER Review Committee, 2006). Subsequent evaluations will report on the implementation plan resulting from the findings and recommendations of the G/T PEER Review Committee; the scope of this evaluation was to report on developments completed within the 2005–2006 academic year.

Findings

Program Design

- Of the 264 campuses that reported offering G/T services, seven schools did not identify any G/T students.
- Campus survey results indicated that three G/T implementation models or a combination of three G/T models were implemented across the district. These included a Homogeneous G/T Classroom (25.3 percent), G/T Clusters in the Regular Classroom (78.2 percent), and G/T Pull Out/Simple Exchange (14.9 percent).
- Although Sections 2, 2.1A, and 2.2A of the Texas State Plan mandate that G/T students served in the regular classroom need to work together with groups (minimum of three), there were 97 campuses that identified fewer than three G/T students for at least one grade level.
- The Neighborhood G/T Coordinator is not a full-time position; yet, the duties assigned reflect administrative responsibilities.

Student Assessment

- In 2005–2006, a total of 23,440 students attending 257 elementary, middle, and high schools participated in the G/T program. The demographic profile included 16.8 percent African American, 41.5 percent Hispanic, 30.8 percent White, 10.8 percent Asian, and 0.1 percent Native American students.
- When comparing the demographic profile of those students participating in the G/T program to that of HISD, African American and Hispanic students were underrepresented, while White and Asian students were overrepresented.
- A comparison of the actual enrollment with the enrollment goals for each Vanguard school indicated that most schools had a student enrollment that was within 22.0 percent of their enrollment goal, with four schools exceeding their enrollment goals. There were one elementary and four middle schools, however, with student enrollment levels that fell between 34.0 percent and 80.5 percent below their enrollment goal.
- Of the 23,440 students participating in the program, 49.7 percent were receiving Free/Reduced

Lunch, 1.8 percent were in Special Education, 8.7 percent were in Bilingual Education, 1.1 percent were participating in English as a Second Language, and 10.6 percent were English Language Learners.

- During the 2005–2006 school year, 4,404 G/T students from 20 campuses participated in the Vanguard program. These included 17.2 percent African American, 33.2 percent Hispanic, 36.3 percent White, 13.2 percent Asian, and 0.3 percent Native American students.
- A total of 8,771 students were identified for the Neighborhood G/T Grades K–5 program on 182 campuses in HISD for the 2005–2006 school year. They included 17.2 percent African American, 49.8 percent Hispanic, 24.4 percent White, 8.5 percent Asian, and 0.1 percent Native American students.
- In 2005–2006, 10,265 students were identified for the Neighborhood G/T Grades 6–12 program. The ethnic composition included 16.3 percent African American, 37.9 percent Hispanic, 33.9 percent White, 11.7 percent Asian, and 0.2 percent Native American students.
- Vanguard kindergarten applicants who had been identified as G/T by meeting district guidelines, lost their G/T status if they did not accept placement in a Vanguard kindergarten. For the 2005–2006 academic year, middle school students carried their G/T code into high school.

Curriculum and Instruction

- At the secondary level, Pre-Advanced Placement/Advanced Placement course offerings and format were determined at the campus level.
- At the secondary level, Pre-AP/AP and Pre-IB/IBMYP/IB courses defined the G/T program. HISD provides equitable access to the Advanced Placement program through an open admissions policy.
- When comparing performance on the Stanford 10 achievement test using a stratified random sample of students in the Vanguard and Neighborhood G/T programs, students in the Vanguard program outperformed students in the Neighborhood G/T program for all subtests and grade levels with the

exception of second and third grade performance on the math and language subtests.

- On the Stanford 10 achievement test, the mean Normal Curve Equivalent (NCE) scores of a stratified random sample of G/T test-takers fell into the above average (>55.6 NCEs) range for all subtests and grade levels.
- A total of 2,543 G/T students out of 4,358 HISD test-takers participated in the 2006 AP test administration.
- For 2006, a total of 5,446 AP exams were taken by G/T students, and 58.3 percent of the scores were three or higher. Scores of three or higher typically qualified a student to receive college credit, advanced placement, or both.
- For 2006, AP test participation and performance varied markedly by campus. G/T high school participation rates ranged from 0.0 percent at Eastwood Academy and Kashmere High School to 59.1 percent at Westside High School. Regarding student performance, the percentage of exams scoring three or higher ranged from 0.0 percent at Eastwood, Kashmere, Middle College for Technology Careers, Evan Worthing, and Ross Sterling to 88.4 percent at Bellaire.
- The percentage of G/T AP tests scoring three or higher by Asian and White students exceeded that of African American and Hispanic students.
- In May of 2006, HISD G/T students took a total of 868 International Baccalaureate examinations, where 82.9 percent scored a four or above.
- In 2006, Bellaire had the highest percentage (91.8 percent) of G/T IB exams scoring four or above, while Mirabeau Lamar had the highest number of G/T students taking IB examinations (n=248).
- For 2005–2006, 22 Bellaire and 64 Lamar G/T students along with two Stephen Waltrip students achieved the IB diploma. Waltrip no longer offers the IB program.
- For the class of 2005, there were 221 students earning the Distinguished Achievement Program

(DAP) transcript seal, and 199 of them were in the G/T program.

- When examining the educational path of the class of 2005 for DAP transcript seal recipients, 111 students attended one of 18 middle school programs. The three middle schools and high schools with the highest number of DAP transcript seal recipients included Sidney Lanier (n=41), T.H. Rogers (n=17), and Paul Revere (n=12) middle schools, Bellaire (n=33), Lamar (n=20), and Michael DeBaKey High School for Health Professions (n=23) high schools.

Professional Development

- Based upon data extracted from the Public Education Information Management System (PEIMS), a total of 1,149 full-time teachers provided instruction for G/T students during the 2005–2006 school year reflecting 9.4 percent of the teachers district-wide.
- Professional development data extracted from e-TRAIN is underrepresented because campuses may hire consultants or participants may attend training that is not tracked on e-TRAIN.
- Based on data extracted from e-TRAIN, a total of 366 participants completed 20 different training sessions for a total of 3,624 hours of professional development. Of the 366 participants, 279 earned 6 hours, 24 earned 12 hours, 19 earned 18 hours, and 44 earned 30 hours of training for the 2005–2006 school year.

Family-Community Involvement

- During the 2005–2006 school year, the G/T PEER Review Committee formed to examine and evaluate the program design and admission practices regarding the Vanguard and G/T Neighborhood programs. Parents of children in the program were interviewed, and their input was incorporated in the findings and recommendations of the committee.
- According to campus survey results, having a small G/T population and having the opportunity to schedule G/T training without impacting the instructional day represented the two biggest obstacles.

- On a campus survey, respondents were asked what they would like to change about the G/T program. Changes centered primarily on curriculum and instruction, where more activities and projects could be incorporated.

Recommendations

1. To ensure that a quality G/T program is in place according to the *Texas State Plan*, continue monitoring the G/T program, especially those campuses where program enrollment levels are low and where participation and performance data are low. Consider providing support to these campuses to improve the quality of the program.
2. Target recruitment efforts for the Vanguard program at the preschool level, as kindergarten serves as a critical entry point where the racial/ethnic composition is essentially locked-in for the elementary years. With low program attrition, far fewer slots open up in subsequent years.
3. Upgrade the Neighborhood G/T coordinator position to reflect the administrative responsibilities, or provide assistance by delegating the duties to the G/T supervisors, or enlist assistance from available campus and clerical staff for coordinators with full-time teaching responsibilities.
4. Continue training district personnel on implementing the G/T Curriculum Framework, “Scholars and Knowledge,” to support students in making a seamless transition from elementary to middle to high school.
5. Since campuses select Pre-AP and AP course offerings, issues pertaining to vertical alignment may arise. Consider developing vertical teams for the G/T program, composed of an upper level and lower level high school teacher, a middle school teacher, and a fifth or sixth grade teacher along with a school counselor and G/T Supervisor for the respective feeder patterns in order to develop strategies so that students are prepared for taking advanced coursework, especially in mathematics and science.
6. In compliance with state mandates, results of this year’s evaluation should be reflected in the district and campus improvement plans.

GIFTED AND TALENTED (G/T) PROGRAMS 2005–2006

Purpose: To document the current status of the G/T program in relation to the guidelines outlined in the Texas State Plan for the Education of Gifted and Talented Students.

Design: Descriptive.

Population: Houston Independent School District participants in the G/T program.

Methods: Results from a campus survey along with demographic and enrollment data were analyzed using descriptive statistics. Interviews from program personnel and qualitative data from surveys were grouped according to content. Quantitative and descriptive data analyses were used to assess the performance levels of students taking the Stanford 10, International Baccalaureate (IB), and Advanced Placement (AP) tests. Teacher training/certification information was obtained using PeopleSoft, Public Education Information Management System (PEIMS), and e-TRAIN. Kindergarten and sixth grade enrollment were tracked using the Magnet Applications and Transfers System (MATS) and PEIMS. Distinguished Achievement Program (DAP) transcript seal recipients were tabulated, and their educational path analyzed.

Findings: In 2005–2006, a total of 23,440 students attending 257 elementary, middle, and high schools participated in the G/T program. Program models varied across the district. PEIMS data indicated that 1,149 full-time teachers provided instruction during the 2005–2006 school year. On the Stanford 10, mean NCE scores for G/T test-takers were above average (>55.6) for all subtests and grade levels. For the 2006 administration, a total of 5,446 AP exams were taken by 2,543 G/T students. For 2005–2006, 22 Bellaire and 64 Lamar G/T students along with two Waltrip students achieved the IB diploma.

Conclusions: Issues pertaining to vertical alignment need to be addressed so that students have a foundation for future success at all participating school campuses, especially in math and science. Monitor campuses with low G/T program enrollments, and low participation and performance in AP, and IB courses/exams. Strengthen professional development to ensure students are receiving a rigorous, challenging curriculum.

Introduction

Program Description

Definition of Gifted and Talented (G/T)

According to the Texas Education Code §29.121 and the Houston Independent School District (HISD) Board Policy, G/T students are “those identified by professionally qualified persons, who perform at, or show the potential for performing at a remarkably high level of accomplishment when compared to others of the same age, experience, or environment. These are students who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their

contribution to self and society. Students capable of high performance include those with demonstrated achievement and/or high potential ability in any of the following areas:

- Exhibits high performance capability in an intellectual, creative, or artistic area;
- Possesses an unusual capacity for leadership; or,
- Excels in a specific academic field (Houston Independent School District 2005a, 2005b).”

Texas State Plan for the Education of Gifted/ Talented Students

According to §29.123 of the Texas Education Code, the *Texas State Plan for the Education of Gifted/*

Talented Students (herein referred to as the *Texas State Plan*) represents the accountability plan for measuring the performance of districts in providing state-mandated services to students identified as G/T and talented (Texas Education Agency, 2000). The State Board of Education adopted a new plan in November 1996 consisting of five components:

- **Student Assessment:** Ensuring that instruments and procedures used to assess students for program services measure diverse abilities and intelligence and provide students with an opportunity to demonstrate their talents and strengths.
- **Program Design:** Ensuring a flexible system of viable program options that provide for the development of a learning continuum through the district that reinforces the strengths, needs, and interests of G/T students.
- **Curriculum and Instruction:** Ensuring that curriculum and instruction met the needs of G/T students by modifying the depth, complexity, and pacing of the general school program.
- **Professional Development:** Ensuring that all personnel involved in the planning, development, and delivery of services to G/T students have sufficient knowledge to enable them to offer appropriate options and curricula for G/T students.
- **Family-Community Involvement:** Ensuring that districts regularly encourage community and family participation in services designed for G/T students.

The *Texas State Plan* outlines three different performance measures that may be viewed as a continuum: *Acceptable*, *Recognized*, and *Exemplary*. All districts are required to meet the accountability measures set forth under the *Acceptable* category. In addition, the state plan is to serve as a guide for improving program services. To accomplish this, districts and campuses may review the recognized and exemplary measures to improve student services that are not mandated (Texas Education Agency, 2000).

Elementary and Secondary Program Design

HISD Elementary and Secondary Guidelines, which are compiled by the HISD Department of Federal and State Compliance, delineate specific district policies and procedures with respect to the education of G/T students in HISD. These specific policies and procedures are a product of the district's interpretation and application of mandates from the following authorities:

the Texas Education Code, the Texas Administrative Code, and HISD Board Policy. The district adopted the guidelines set forth in the Texas State Plan to ensure that the programs and services offered for G/T students were in compliance with the Texas Education Code.

In HISD, G/T students were served through one of two programs implemented in 2005–2006:

- Board-approved Vanguard/Magnet programs, or
- Neighborhood G/T programs.

Vanguard

The Vanguard program (K–12) was a district-wide Magnet program designed to serve G/T students, who excelled in general intellectual ability, in combination with creative/productive thinking and/or leadership ability. Vanguard was a full day program, where students received special instruction in self-contained academic classes that were differentiated (depth, complexity, and pacing) in the four core areas (reading/language arts, mathematics, social studies, and science). By receiving instruction in a homogenous environment, students had the opportunity to work with their cognitive peers. Additionally, Vanguard offered a curriculum that was both accelerated and enriched. At the secondary level, the Vanguard program was a college preparatory course of study. Students were encouraged and sometimes required to participate in extracurricular competitions such as *Odyssey of the Mind*, Academic Decathlon, Science Fair, or History Fair. As a Magnet program, Vanguard adhered to Magnet guidelines with respect to the admissions process. Qualified students were provided transportation for the program.

The Vanguard program began in 1972 and was HISD's first full-day program for G/T students. Vanguard was incorporated into the Magnet program in 1975–1976 and now serves students at eleven elementary schools, eight middle schools, and one high school. A Vanguard education in HISD is provided only in Board-approved programs, and entry into Vanguard programs is competitive. In 2005–2006, the program served students at the following Board-approved locations:

- Jewel Askew (K–4), Edna Carrillo, Lorenzo De Zavala, Gary Herod, Oak Forest, Pleasantville, River Oaks, Theodore Roosevelt, T.H. Rogers, William Travis, and Windsor Village Elementary Schools;
- Luther Burbank, Alexander Hamilton, William Holland, Thomas Jackson, Sidney Lanier, Janie Long,

James Ryan, and T.H. Rogers Middle Schools; and,

- Carnegie Vanguard High School.

The overall goals of the Vanguard program were to “provide G/T students additional opportunities for developing their exceptional talents and pursuing their special interests, and to provide an environment that promoted G/T students’ potential for divergent, creative, and critical thinking and reasoning” (Department of Research and Accountability, 1994). The primary goal of all magnet programs was to provide a quality program and unique focus to attract students from across the district, and also increase the diversity of the student body (Houston Independent School District, 2005c).

Neighborhood G/T Grades K–12

The Neighborhood G/T program was designed to provide services for G/T students at their neighborhood schools who met the criteria for identification established by district guidelines. All qualified students were served in their Neighborhood G/T program because there were no program enrollment goals.

The Neighborhood G/T program was designed for G/T students who excelled in general intellectual ability, in combination with creative/productive thinking and/or leadership ability. The focus was to serve the top 5 percent of each campus with a differentiated curriculum by modifying the depth, complexity, and pacing of the general school program. Students were identified and provided services by March 1 of their kindergarten year. To address the different needs of the participating schools, decisions regarding the program design were made at the campus level (Houston Independent School District, 2005a).

During the 2005–2006 school year, the Gifted and Talented Peer Examination, Evaluation, and Redesign (PEER) Review Committee formed in order to examine and evaluate the program design and admission practices regarding the Vanguard and Neighborhood G/T programs and to report their findings and recommendations to the HISD Board of Education. The following objectives were addressed:

- Conduct a program review of the effectiveness of G/T Neighborhood and Vanguard programs,
- Review current program designs,
- Address the admissions policies and specifically the tier system and sibling policy.

During the three-month process, the committee received input from a number of sources, including interviewing parents of children in both G/T programs. This input was incorporated in the findings and recommendations put forth by the G/T PEER Review Committee. Findings and Recommendations may be found on the HISD website (Gifted and Talented PEER Review Committee, 2006). Subsequent evaluations will report on the implementation plan resulting from the findings and recommendations of the G/T PEER Review Committee; the scope of this evaluation was to report on developments completed within the 2005–2006 academic year.

Other Program/School Options

Other educational opportunities available to all students as well as those identified as G/T included:

- Pre-Advanced Placement (Pre-AP) program Grades 6–10,
- College Board Advanced Placement (AP) program Grades 11–12,
- International Baccalaureate Primary Years Programme (IBPYP),
- International Baccalaureate Middle Years Programme (IBMYP)/Grades 6–10,
- Pre-IB Classes (Grades 9–10),
- International Baccalaureate (IB) Degree Programme Grades 11–12, and
- High School for Performing and Visual Arts (HSPVA).

At the secondary level, program services centered on Pre-AP/Pre-IB/IBMYP and AP/IB classes. Middle school students in the G/T program were required to enroll in Pre-AP/IBMYP classes in the four core content areas with a G/T-AP/IB and “Scholars & Knowledge”-trained teacher implementing the HISD G/T curriculum framework. High school students in the G/T program were required to enroll in at least one advanced level class (Pre-AP, AP, Pre-IB/IBMYP, and/or IB) with a teacher who had received the requisite training outlined above.

Pre-AP/AP

Pre-AP classes provided a challenging curriculum that was aligned with the College Board Advanced Placement course curriculum objectives for students in grades 6–10. Advanced skills were introduced through traditional subject areas by inquiry and prob-

lem-based learning. Research and analytical writing were emphasized in every core subject area. In the 2005–2006 school year, HISD expanded the AP Initiative by requiring all sixth and seventh grade students to take Pre-AP English classes. Students could decline enrolling in the more rigorous classes only if their parents remove them from the classes. This initiative provided middle school students with the necessary foundation to become successful in taking AP courses in high school. Pre-AP program course offerings varied at every campus.

The AP program provided participating students with the opportunity to take college-level courses while still in high school and earn college credit, advanced placement, or both. The curriculum consisted of pre-university and university level courses developed by the College Board. Students who participated in the AP program had opportunities to study a particular subject in greater depth provided by highly qualified teachers. This experience may have assisted students in determining what educational path to pursue. By taking AP courses, students developed advanced skill sets and study habits that ultimately prepared them for college studies (College Board, AP Central, 2006). Other benefits afforded to students included opportunities that led to scholarships, such as the AP Scholar awards. AP program course offerings varied at every campus.

IB Programs

In the spring of 2005, three HISD elementary schools became the first elementary schools in Texas to be named IB schools. River Oaks, Oran Roberts and Mark Twain Elementary Schools successfully completed against 3,000 others throughout the country to join the select group of 30 elementary schools in the United States. This Primary Years Programme (PYP) is a school-wide program that benefitted all students regardless of G/T identification. It focused on the development of the whole child and offered a framework that meets children’s academic, social, physical, emotional, and cultural needs. The framework, geared towards students from ages 3–12, consists of structured inquiry centered around six organizing or “transdisciplinary” themes which are incorporated into the advanced curriculum, including:

- Who we are;
- Where we are in place and time;
- How we express ourselves;
- How the world works;
- How we organize ourselves; and

- Sharing the planet (International Baccalaureate Organization, 2005).

With the inception of the PYP, HISD became one of only eight districts in North America to have an IB feeder pattern across grade levels. River Oaks, Roberts, and Twain Elementary Schools “feed” into Lanier Middle School, which “feeds” into Lamar High School.

The IBMYP used a challenging internationally based curriculum, and was designed for students in grades 6–10. Traditional subject areas were enhanced by interdisciplinary study with a focus on history, culture, language, and expression. Service and leadership were emphasized. Students enrolled in IBMYP classes that were aligned with the IB course curriculum. The IBMYP prepared students for participation in the IB Diploma Programme. Lamar High School and Lanier Middle School have been authorized by the International Baccalaureate Organization (IBO) to offer the IBMYP at their schools.

The IB Diploma program for eleventh and twelfth grades was an internationally based pre-university level curriculum developed by the IBO. Through IB examinations, students may receive college placement hours. The IB program was offered at Bellaire and Lamar High Schools. Students accepted and attending one of the two IB Diploma schools may be enrolled in Pre-IB courses during 9th and 10th grades.

In 1971, the concept of a high school designed to provide specialized training for G/T young students in the arts evolved. HSPVA was the only high school in the district to offer G/T artists a program integrating academics with concentrated training in both visual and performing arts. Students spend three hours each day in their respective art areas, and the remainder of the time in academics or electives. The arts offered for in-depth study included: dance, instrumental and vocal music, theater arts, and visual arts (Houston Independent School District, 2006a). As a Magnet program, HSPVA was a Separate and Unique School (SUS). An SUS was a total Magnet program with no home zone. As part of the application process, students were required to audition in their respective area of concentration.

Student Assessment

Admission into the G/T program was determined by criteria established by the Board and according to the Texas Education Code §29.122 and the Texas Administrative Code §89.1. According to the *Elemen-*

tary and Secondary Guidelines (2005a, 2005b), applicants were assessed using multiple criteria which may have included some of the following:

- Ability Testing,
- Achievement Testing,
- Teacher Observation,
- Parent Observation (K–5),
- Exhibits (6–8),
- Grades, and
- Overcoming Obstacles (English Language Learners, Special Education/504, or Low Socio-economic Status).

Entry Procedures for G/T

In order to be assessed for the G/T program, parents secured and completed either a Vanguard or a Neighborhood G/T application form. Application forms were available on the web, through the Department of Advanced Academics, Magnet Department (Vanguard program), or through the school. For Vanguard schools, parents submitted only one application to their first choice school. Eligible students resided within HISD boundaries or had an approved transfer. Out of district students would be charged tuition according to the approved rate of each school. Applications were reviewed by a centralized admissions committee for Vanguard and by a campus based admissions committee for the Neighborhood G/T program.

Centralized Admissions Committee

For all Vanguard applicants, coordinators scored and recorded information on the district approved G/T Profile sheet. Using a centralized admissions committee, which consisted of at least three members trained in G/T education, the profile sheets were reviewed to determine those applicants meeting district criteria. Applicants indicated their top three choices for school locations. Those students who qualified for the Vanguard program were classified into three different groups, Tier I, Tier II (applicants with a profile score of 62 or above), and Tier III (applicants with a profile score between 56-61). Tier I applicants represented the top qualifying applicants according to district criteria and received placement in their first or second choice program location. Tier I was applicable for the following grade levels: kindergarten, first grade at River Oaks Elementary, fourth grade at T.H. Rogers, and all sixth grades. Tier II qualified applicants received their first choice location if space was available. If there were more qualified applicants than spaces available, applicants were assigned to their program location accord-

ing to a centralized lottery process. The applicant may have been placed on a waiting list determined by the lottery process.

Parents were notified by mail regarding the qualification of their child for the Vanguard program, and were responsible for notifying the location of their decision to accept or decline the invitation by a specified date. At the kindergarten level, parents who chose to decline the Vanguard program and enrolled their child in a neighborhood school, lost their G/T identification status. However, these parents would have the opportunity for their child to be reassessed during their kindergarten year and, if identified, their child would be provided G/T services in their neighborhood school by March 1. For grades 1–5, students that qualified for Vanguard, but did not accept a Vanguard placement location, automatically qualified for their neighborhood G/T program, pending parents completing the application and the neighborhood campus receiving a copy of the completed district G/T Profile sheet.

Campus-Based Admissions Committee

For all Neighborhood G/T K–12 applicants, the assessment process for nominated students included the completion of the district approved G/T Profile sheet. The student G/T profile sheet was presented at the campus-based admissions committee meeting, composed of at least three members, who were trained in G/T education, to determine placement needs of the student. Parents were then notified of their child's placement recommendation. For the current academic year, students enrolled in kindergarten were assessed, identified, and provided services by March 1, 2006.

Retaining the G/T Identification

Elementary students maintained their G/T identification through fifth grade. All students must reapply for G/T identification at sixth grade. Students in grade nine carried their G/T identification from middle school and remained identified as G/T as long as they enrolled each year in one or more advanced level classes in the four core academic areas.

G/T Program: Exiting Procedure

Students not meeting program expectations were placed on a growth plan. The growth plan outlined the following: identification of the problem, student's responsibilities for improvement, school personnel's responsibilities for helping the student to improve,

parent's responsibilities for helping the student to improve, and a designated time for re-evaluation. There were three possible recommendations that may have ensued. First, a recommendation to continue in the program was made if the student met the goals and objectives of the growth plan. Alternatively, extensions or modifications to the growth plan were made, and a new re-evaluation time was then scheduled. Finally, if a student was not able to meet the goals of the growth plan, a recommendation to remove the student from the G/T program was put forth.

Vanguard Sibling Policy

In HISD, there existed a sibling policy designed to accommodate parents who wanted their children to attend the same school during the same school year. First and foremost, the sibling needed to qualify for the program, and both children needed to be attending the same school during the school year for which the application was made. A Tier I sibling received priority in program assignment. However, no Tier I student would be displaced from his/her location choice due to a Tier II sibling. Tier II siblings would be considered as Tier I and received preference for program location when there was space available. If a Tier II lottery was held, the siblings would go through the process and be placed in order of their lottery number at the top of the waiting list. Siblings qualifying through the appeals process would be placed on the waiting list below other qualified siblings and above other non-sibling applicants (Houston Independent School District 2005a).

Program Rationale and Goals

A quality G/T program is in compliance with state guidelines as outlined in the *Texas State Plan*, which forms the basis of program accountability for state mandated services (TEC §29.123). **Appendix A** graphically summarizes the goals for each of the five components of the Texas State Plan. The goals as they related to the G/T program were to:

- Provide a flexible system of viable program options that provide a learning continuum throughout the district and reinforce the strengths, needs, and interests of G/T students (Program Design);
- Ensure instruments and procedures used to assess students for program services measure diverse abilities and intelligences and provide students an opportunity to demonstrate their talents and strengths (Student Assessment);
- Meet the needs of G/T students by modifying the

depth, complexity, and pacing of the general school program (Curriculum and Instruction);

- Ensure all personnel involved in the planning, development, and delivery of services to G/T students have knowledge to enable them to offer appropriate options and curricula for G/T students (Professional Development); and,
- Encourage community and family participation in services designed for G/T students on a regular basis (Family-Community Involvement).

Program Personnel

Based upon information extracted from the staff file in the Public Education Information Management System (PEIMS) database, there were 1,149 full-time teachers responsible for G/T classroom instruction, on 118 campuses in HISD. According to the *District & School Profiles* (Houston Independent School District, 2006b), there were 12,237 teachers in HISD. Therefore, 9.4 percent of the teachers district-wide provided instruction for the G/T student population.

In addition to the teachers, campuses designated coordinators for the Vanguard and Neighborhood G/T programs. All coordinators were expected to attend the monthly meetings with the Regional Office G/T supervisors and communicate G/T information to the principal and faculty. According to the Elementary School Guidelines (2005a), the Neighborhood G/T Coordinator Grades (K–5), performed the following duties and implemented all procedures according to the Neighborhood G/T K–5 timeline:

- Communicate Neighborhood G/T K–5 program information to parents concerning the student application process;
- Coordinate assessment and identification of applicants with campus G/T admissions committee;
- Send parent notifications;
- Maintain documentation of faculty's G/T professional development;
- Coordinate development of program design for the campus, based on the number of identified G/T students per grade level;
- Maintain Neighborhood G/T K–5 files of all applicants (qualified and non-qualified);
- Coordinate PEIMS coding of G/T students; and
- Submit required program documentation to Regional Office and HISD Advanced Academics Department.

The role of the Advanced Academics Department regarding the G/T program was to provide support to

the campuses offering Vanguard and/or the Neighborhood G/T programs. The Advanced Academics Department consisted of one manager, two coordinators, and one administrative assistant for the 2005–2006 school year.

Program Participants

The G/T program was designed to serve K–12 students who were identified by criteria established at the district level. During the 2005–2006 academic year, 23,440 students attending 257 elementary, middle, and high schools participated in this program based upon information extracted from the PEIMS fall enrollment data file. Differences existed between the number of participating campuses derived from the student enrollment file ($n=257$) compared to the teacher file ($n=118$). The disparity may be explained by some of the following: the fact that teachers were in the process of serving G/T students while completing their professional development requirements, teachers serviced multiple populations and PEIMS coding restrictions precluded identifying all of those groups served, teacher mobility precluded their inclusion for the fall snapshot, and/or submission of G/T teachers to the Texas Education Agency (TEA) was not complete.

Budget

The annual budget for the G/T Program for 2005–2006 was \$8,383,238.40. This figure represented the adopted budget with the carryover removed. The budget included \$266,673 for the Department of Advanced Academics.

Figure 1 compares the percentage of G/T instructional expenditures for the state and the district from 2000–2001 through 2004–2005 (Academic Excellence Indicator System, 2001, 2002, 2003, 2004, and 2005). From 2001 through 2005, the percentage of G/T instructional expenditures for the state exceeded those of the district. During this time period, the percentage of G/T instructional expenditures for the district declined from 1.0 percent in 2001 to 0.8 percent in 2005. The percentage of G/T instructional expenditures for the state declined from 1.8 percent to 1.6 percent.

Purpose of the Evaluation

The purpose of this evaluation was to comply with state mandates requiring school districts to evaluate the effectiveness of the G/T program annually (TEC §11.251–11.253). Consequently, this evaluation focused on the degree to which the G/T program operated in compliance with the policies and procedures devel-

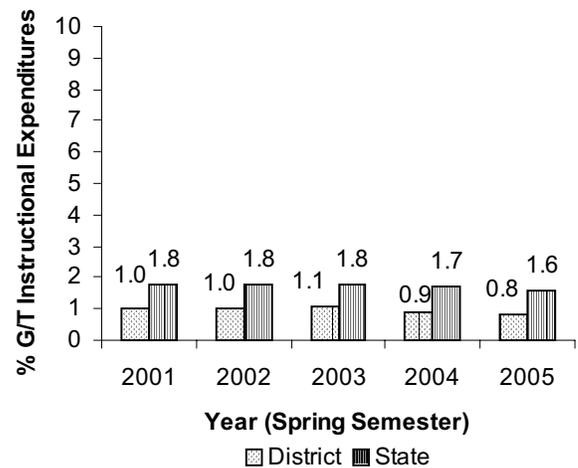


Figure 1: Percent of G/T instructional expenditures, 2001–2005.

*Note: Scale ranges from 0% to 10%, not 100%.

Source: AEIS, 2001, 2002, 2003, 2004, 2005

oped by the legal and administrative authorities. To accomplish this, the following research questions were addressed:

1. What evidence was there that a flexible system of viable program options that provide a learning continuum was developed throughout the district and reinforces the strengths, needs, and interests of G/T students?
2. What evidence was there that the instruments and procedures used to assess students for program services measure diverse abilities and intelligences and provide students an opportunity to demonstrate their talents and strengths?
3. What evidence was there that curriculum and instruction met the needs of G/T students by modifying the depth, complexity, and pacing of the school program?
4. What evidence was there that all personnel involved in the planning, development, and delivery of services to G/T students had knowledge to enable them to offer appropriate options and curricula for G/T students?
5. What evidence was there that the district regularly encouraged community and family participation in services designed for G/T students?

Methods

Data Limitations

The G/T students were served in the district by two programs, Vanguard/Magnet and Neighborhood G/T Grades K–12. However, there was only one code on

the Public Education and Information Management System (PEIMS) database identifying G/T students. To identify the particular program (Vanguard/Magnet versus Neighborhood G/T), a two-step process was implemented. Using the PEIMS database, all G/T students were extracted for the 2005–2006 school year. Next, the G/T students were then matched to the Schools Administrative Student Information (SASI) System, to identify Magnet students. G/T students who were matched to the Magnet file were identified as Vanguard participants. Those G/T students who were not identified as Magnet students were identified as Neighborhood G/T participants. There may be small discrepancies in the number of participants because students entering the district after the PEIMS fall snapshot would not be included in the analysis.

When examining the Magnet Applications and Transfers System (MATS) data, it is important to acknowledge that it has some limitations. Qualifying for the program does not necessarily result in being given a place in a Vanguard program. This is because not all wait-listed students will be given, or will accept, a space in a kindergarten or sixth grade Vanguard program. Others may not receive admittance into the program of their choice and will decline to attend. Thus, the final pool of “accepted” students will fluctuate until the first day of the 2005–2006 academic year for applications received during the 2004–2005 cycle. Since MATS is a dynamic database, information is updated regularly. Kindergarten and sixth grade applicants were extracted from two different application cycles. MATS data from the 2004–2005 school year, which had been archived, was used to track kindergarten and sixth grade students into the 2005–2006 academic year to compare accepted applicants to the pool of students that actually enrolled. MATS data from the 2005–2006 school year were also used to analyze application rates, and these data were current as of June 20, 2006.

Professional Development for G/T teachers was extracted using HISD e-TRAIN. Limitations exist since some professional development activities were not tracked on e-TRAIN because campuses may have hired their own trainer, and the training was not through e-TRAIN. Therefore, the resulting counts may be under-represented.

G/T certification was extracted using PeopleSoft, which contains personnel data. The data may under-represent the true number of teachers that have met the requisite training requirements for providing G/T instruction or making program decisions. Primarily,

archived information reflecting those teachers with G/T certification may not have been entered into the system; however, personnel have hard copies of their qualifications. Information pertaining to those teachers providing G/T instruction was also extracted using the PEIMS database. The total number of G/T teachers and the number of teachers in the district when comparing the data from PeopleSoft and PEIMS are not in accord. Since PEIMS represents a snapshot in time, and PeopleSoft is a dynamic source of information, a greater number of staff members could be tracked. PEIMS also allows for only one population code to be entered, possibly precluding those teachers who provide instruction to multiple populations, including G/T students, from being coded.

Data Collection

Student data were obtained using a variety of sources. For the 2005–2006 academic year, demographic, enrollment, and graduation data for G/T students were extracted from the PEIMS and SASI databases. The program description, entry procedures, and student eligibility criteria were extracted from the *HISD Elementary and Secondary Guidelines, 2005–2006* and the *District and School Profiles* (Houston Independent School District, 2005a, 2005b, 2006b). Information pertaining to the application and acceptance rates for kindergarten and sixth grade Vanguard students was obtained from the Magnet Applications and Transfers System (MATS) database for both 2004–2005 and 2005–2006. A cohort of G/T qualified kindergarten and middle school students was tracked using the 2004–2005 MATS database and then matched to 2005–2006 PEIMS database to follow-up on the number of students who accepted admission and actually enrolled.

Since the Department of Research and Accountability provided support to the 2005–2006 G/T PEER Review Committee, program information and issues were evaluated during meetings and group interviews. Additional documentation, including articles, policies, student mobility, and student performance data, was provided from the manager and coordinators in the Department of Advanced Academics.

The Academic Excellence Indicator System (AEIS) synthesizes a wide range of information on the performance of students in Texas public schools. This information is put into the annual AEIS reports, which are available each year in the fall. State and district information pertaining to G/T instructional expenditures were downloaded from the Academic Excellence

Indicator System Report (2001, 2002, 2003, 2004, and 2005). Budget information for HISD during the 2005–2006 academic year was provided by the Budgeting and Financial Planning Department.

Information with respect to G/T training was provided by the Department of Technology and Information Systems as an extract from the HISD e-TRAIN database for 2005–2006. The e-TRAIN program had the capability to track employee professional development on the individual level, including attendance and completion for each training session.

Academic Performance

Stanford 10 Normal Curve Equivalent (NCE) and National Percentile Rank (NPR) scores were extracted for G/T students in grades one through eleven for the 2005–2006 school year by program. A G/T sample for both the Vanguard and Neighborhood G/T program was derived by using a stratified random sample that was drawn from 3,952 Vanguard and 15,426 Neighborhood G/T students with Stanford 10 scores. The four strata included grade level, socioeconomic status, ethnicity, and gender. Using this method, the number of Asian and White students that were not economically disadvantaged were undersampled. Rather than weighting the stratified random sample or sampling from another grade level, the Neighborhood G/T sample size was decreased so that the proportions of the four strata matched the proportions in the Vanguard sample.

AP test performance for 2006, along with demographic information supplied by the students, were reported to HISD for each participating campus by the College Board via printed reports and electronic database. Student-level data were matched to the PEIMS database to identify those students who were G/T. Students who were not matched were not included in the analysis. The 2006 national scores for test performance by subject were extracted from the *National Summary Report* (College Board, AP Central, 2006a). State level data, including the number of AP Subject tests taken along with the percentage of scores that were three or above, were extracted from the *State Summary Report* (College Board, AP Central, 2006b). Participation rates for juniors and seniors were calculated by dividing the number of students tested by the PEIMS snapshot of fall enrollment for the same group. Participation rates for juniors and seniors were calculated across the district and by school.

Performance data of HISD students on IB examinations and diplomas awarded were obtained from IB score reports or from participating schools. Participa-

tion and performance were reported by district and school. For the district and individual schools, the number and percent of students scoring a four or better were reported. A score of four or better allowed an IB exam to be used as one of four measures required for the Distinguished Achievement Program. HISD policy is not to report grouped scores for fewer than five students.

Elementary G/T and Science Implementation Survey

In May, an *Elementary G/T and Science Implementation Survey* was distributed to all elementary schools in the district. The purpose of the survey was to learn about the implementation of the G/T program as well as the science program for each campus. There were a total of 13 questions that addressed G/T program implementation. Out of a total of a total of 206 schools, 87 surveys were completed, representing a 42.2 percent return rate. A copy of the survey can be found in **Appendix B**.

Data Analysis

Basic descriptive statistics were employed to analyze the data. For enrollment by grade level and campus, frequencies were calculated. For survey items, the responses for each category were tabulated and/or percentages calculated. Due to rounding, some totals may not equal 100 percent. Non-parametric statistics were employed to compare performance on the Stanford 10 for Neighborhood G/T and Vanguard students.

Results

What evidence was there that a flexible system of viable program options that provided a learning continuum was developed throughout the district and reinforced the strengths, needs, and interests of G/T students?

Program Design

G/T Program Services

In HISD, G/T students were served through two different programs, Vanguard/Magnet or Neighborhood G/T Grades K–12. Out of 303 schools in HISD, 264 campuses offered G/T services. There were 182 elementary campuses offering Neighborhood G/T programs (K–5), 85 secondary campuses offering Neighborhood G/T programs (6–12), and 20 campuses offering Vanguard programs (K–12). Out of the 264

campuses offering G/T services, there were seven campuses offering a Neighborhood G/T program who did not identify any G/T students based upon the PEIMS fall snapshot. These included: Sharon Halpin Early Childhood Center, Briar Meadow Charter, Douglas MacArthur Elementary School, Las Americas Early Childhood Development Center, William A. Lawson Institute for Peace and Prosperity (WALIPP), Dominion Academy, and St. John's Academy. For 2005–2006, a total of 19,036 G/T students participated in the Neighborhood G/T program (K–12) compared to 4,404 G/T students who participated in the Vanguard program. When comparing the percentage of G/T students enrolled by program, approximately, 82 percent of G/T students were served through the Neighborhood G/T program (K–12), while 18 percent of the G/T students were served through the Vanguard program.

Elementary G/T Program Models

To evaluate how the G/T Program was implemented at the elementary level, information was obtained through the *Elementary G/T and Science Implementation Survey*. Out of a total of 206 elementary schools, 87 submitted survey forms, reflecting a 42.2 percent return rate. For a list of the responding schools, see **Appendix C**. Based upon the responses, 90.8 percent of the campuses implemented a Neighborhood G/T program, 6.9 percent implemented both a Neighborhood G/T program and a Vanguard program, and 2.3 percent did not indicate which program design was being implemented.

To address the needs of the participating elementary campuses, three program models or a combination of the three models were implemented across the district. These included: Homogeneous G/T Classroom (25.3 percent), G/T Clusters in the Regular Classroom (78.2 percent), and G/T Pull Out/Simple Exchange (14.9 percent). Since campuses may institute more than one model, the percentages do not add up to 100 percent. **Table 1** summarizes the results for each model. The most frequently used model was the G/T Clusters in the Regular Classroom, used by 78.2 percent of the schools. Factors such as the number of teachers with G/T training, the number of identified students, special populations, or departmentalized grade levels influenced how the program was implemented at the campus level.

The Homogeneous G/T Classroom is where the G/T certified teacher has only district-qualified G/T students in the classroom and has the entire day to differentiate the curriculum in the four core areas. All

Table 1: G/T Program Models and Percent of HISD Schools Implementing Each Model, 2005–06

Neighborhood G/T Model	%
G/T Homogeneous Classroom	25.3
G/T Clusters in Regular Classrooms	78.2
G/T Pull Out/Simple Exchange	14.9

Note: Totals exceed 100% because some campuses have multiple models. Percentages were based on 87 respondents.

Vanguard/Magnet programs implement this model. The G/T Clusters in the Regular Classroom model is one in which district-qualified students are grouped with regular students and served by a G/T certified teacher. The G/T Pull Out/Simple Exchange model is one in which the students are removed from the regular classroom or teachers exchange clusters of district-qualified G/T students on a daily basis. The G/T students are served by G/T teachers, who differentiate the curriculum in the four core areas.

According to the *Texas State Plan* Section 2, 2.1A, and 2.2A, G/T students served in the regular classroom needed to work together with groups (minimum of three) of G/T students. Since the predominant model selected by campuses was to serve G/T students in the regular classroom, an analysis was undertaken to examine the enrollment for elementary and secondary campuses, which were serving G/T students. For 2005–2006, there were 97 campuses that identified fewer than three G/T students for at least one grade level. **Table 2** summarizes the number of campuses by region serving fewer than three G/T students for at least one grade level. The schools in the Alternative/Charter District did not identify any G/T students for the 2005–2006 school year. The number of schools serving G/T students with fewer than three G/T students by grade level ranged from 11 for the East Region to 36 for the North region.

What evidence was there that the instruments and procedures used to assess students for program services measured diverse abilities and intelligences and provided students an opportunity to demonstrate their talents and strengths?

Student Assessment

G/T Enrollment

In 2005–2006, a total of 23,440 students attending 257 elementary, middle, and high schools participated

Table 2: Neighborhood G/T K–12 Campuses with Fewer than 3 G/T Students for At Least One Grade Level by Region, 2005–2006

Region	Total Schools
Alternative/Charter	0
Central	18
East	11
North	36
South	16
West	16
Total	97

in the G/T program. **Table 3** compares the number of students who were identified as G/T to the total district enrollment by grade level along with the G/T percentage during the 2005–2006 school year. A total of 23,440 students were identified as G/T compared to the district enrollment of 193,471 (Grades K–12). The overall district percentage of students identified as G/T was calculated by dividing the total number of students in grades 1–12 identified as G/T by the total number of students in grades 1–12 in the district. The G/T percentage for the district was 13.1 percent.

G/T percentages were also calculated by grade level. The number of G/T students were divided by the number of students in the district for each grade level. G/T percentages ranged from 1.9 percent at kindergarten to 17.7 percent at twelfth grade. There were four

Table 3: Comparison of G/T Student Population to the District Population, 2005–2006

Grade	G/T N	District N	GT Percentage†
K	318	16,908	1.9
First	1,735	18,067	9.6
Second	1,963	16,868	11.6
Third	2,206	16,753	13.2
Fourth	2,381	15,932	14.9
Fifth	2,483	15,833	15.7
Sixth	1,718	14,739	11.7
Seventh	1,722	14,677	11.7
Eighth	1,784	13,980	12.8
Ninth	1,864	17,302	10.8
Tenth	1,860	12,279	15.1
Eleventh	1,745	10,761	16.2
Twelfth	1,661	9,372	17.7
Total	23,440	193,471	13.1*

† Calculation based on G/T enrollment divided by district enrollment by grade level.

* Calculation based on GT enrollment for grades 1–12 divided by district enrollment for grades 1–12.

students enrolled in kindergarten from the Neighborhood G/T program. However, most kindergarten students in the Neighborhood G/T program would not have been identified for the Fall PEIMS snapshot; therefore, the low G/T enrollment primarily reflects enrollment in the Vanguard program.

Figure 2 compares the district and state G/T enrollment for the past five years (Academic Excellence Indicator System, 2002, 2003, 2004, 2005, and 2006). This calculation is based on the total number of students in the district divided by the total number of G/T students. Since early childhood and kindergarten enrollment are included, the overall G/T percentages are lower. The percentage of G/T students identified at the state level ranged from 7.6 percent in 2005–2006 to 8.2 percent in 2001–2002. When comparing state G/T enrollment over the five-year period, there was a decrease of 0.6 percentage point. The percentage of G/T students identified at the district level ranged from 9.1 percent in 2002–2003 to 11.2 percent in 2005–2006. When comparing district G/T enrollment over the five-year period, there was an increase of 1.9 percentage points. The G/T percentage for the district exceeded that of the state by 3.6 percentage points for 2005–2006.

Access to Assessment and Identification

According to the Texas Administrative Code as outlined in the *Texas State Plan*, all populations of the district must have access to assessment and, if identified, services offered as part of the program for G/T students (19 TAC §89.1(3)). To achieve parity, the

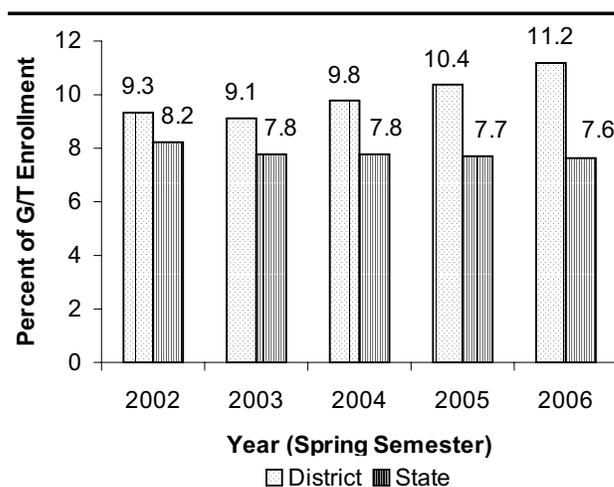


Figure 2: Percent of G/T Enrollment, 2002–2006.

Note: Scale ranges for 0 to 12 percent, not 100 percent. Source: AEIS, 2002, 2003, 2004, 2005, 2006

demographic composition of the G/T population should be closely aligned to that of the district population.

The MATS database provided one venue to address issues pertaining to equality in assessment, identification, and services because it was possible to track Vanguard students from the point of application to the point of enrollment. MATS was designed to record and report magnet applications and to record and report student transfers, and Vanguard is a Magnet program. A pool of kindergarten and sixth grade applicants from the 2004–2005 were identified using the MATS database. Students in the MATS database were matched with the PEIMS and SASI databases for the 2005–2006 school year to track those that applied, accepted and actually enrolled in a Vanguard program.

Archived data from the 2004–2005 MATS database were used to analyze the total applicant pool and the subsequent enrollment in a Vanguard program for the 2005–2006 school year. A total of 2,796 kindergarten and sixth grade students applied to one of the Board-approved Vanguard elementary or middle schools.

As **Table 4** indicates, the racial make-up of kindergarten Vanguard applicants for the upcoming 2005–2006 academic year is significantly different from the racial/ethnic make-up of kindergarten students enrolled during the 2005–2006 academic year. African American and Hispanic students apply for Vanguard G/T at disproportionately lower rates than they are represented in the HISD kindergarten population by 8.5 and 34.6 percentage points, respectively. Conversely, White students and students of Asian descent apply for Vanguard G/T at disproportionately higher rates than they are represented in the HISD kindergarten population by 9.5 and 32.2 percentage points, respectively.

Racial/ethnic differences also exist when comparing sixth grade applicants to the sixth grade population, but to a lesser extent. The percentage of African American and Hispanic applicants is disproportionately lower by 10.3 and 13.4 percentage points, respectively. Alternatively, White students and students of Asian descent apply for Vanguard G/T at disproportionately higher rates than they are represented in the HISD sixth grade population by 6.8 and 16.9 percentage points, respectively. In part, sixth grade students enrolled in the district since kindergarten have more opportunities to be identified as G/T through teacher nomination, parent nomination, and two universal testing windows (kindergarten and fifth grade).

Table 4: Vanguard Applicants Compared to HISD by Race/Ethnicity

Race/Ethnicity	Vanguard Applicants		District Enrollment	
	N	%	N	%
Kindergarten				
African Am.	189	16.7	4,260	25.2
Asian	145	12.6	529	3.1
Hispanic	329	28.6	10,687	63.2
Native Am.	2	0.2	8	<1
White	467	40.6	1,424	8.4
Missing	18	1.6	0	0
Total	1,150	100.0	16,908	100.0
Sixth				
African Am.	352	21.4	4,678	31.7
Asian	159	9.7	425	2.9
Hispanic	726	44.1	8,476	57.5
Native Am.	3	0.2	13	0.1
White	406	24.7	1,147	7.8
Total	1,646	100.0	14,739	100.0

Source: 2004–2005 Magnet Applicant Transfer System (MATS) and PEIMS 2005–2006

Table 5 summarizes the number of kindergarten and sixth grade applicants that applied, accepted, and enrolled as well as the percentage of accepted applicants who enrolled in a Vanguard program by race/ethnicity. For kindergarten, Hispanic students represented the racial/ethnic group with the highest percentage of accepted students that subsequently enrolled in a Vanguard program (70.5 percent), while White students were characterized by the lowest percentage (52.5 percent). When looking at total percentages of those enrolled, a higher percentage of sixth grade students accepted and enrolled in a Vanguard program compared with those in kindergarten. Moreover, a greater percentage of sixth grade African American and Hispanic students were accepted and subsequently enrolled in a Vanguard program when compared with White or Asian students.

Vanguard/Magnet K–12 Enrollment by School

For 2005–2006, a total of 4,404 G/T students participated in the Vanguard program. The elementary and secondary enrollment by school, along with the enrollment goals for each school, are presented in **Figures 3** and **4**. A comparison of the actual enrollment and the enrollment goal for each school indicated that the majority of schools had a student enrollment within 15 percent of their enrollment goal. Moreover, three elementary and one secondary school exceeded their enrollment goals. However, there was one el-

Table 5: Distribution of Kindergarten and Sixth Grade Vanguard Applicants, Acceptance, and Enrollment by Race/Ethnicity

		Applicants	Accepted	Enrolled	Enrolled/Accepted
Kindergarten		N	N	N	%
	African American	189	85	54	63.5
	Asian	145	83	54	65.1
	Hispanic	329	95	67	70.5
	Native American	2	-	-	-
	White	467	255	134	52.5
	Missing	18	12	8	66.7
	Total	1,150	530	317	59.8
Sixth					
	African American	352	153	122	79.7
	Asian	159	121	94	77.7
	Hispanic	726	378	301	79.6
	Native American	3	1	1	100.0
	White	406	320	245	76.6
	Total	1,646	973	763	78.4

Source: 2004–2005 Magnet Applicant Transfer System (MATs) and PEIMS 2005–2006
 Note: Accepted includes wait-listed and no-space

ementary and four middle schools where student enrollment levels fell between 34.0 percent and 80.5 percent below their enrollment goals.

The Vanguard program was designed as a school-within-a-school (SWAS) model on most campuses. The SWAS model is one in which a subset of the student population attending the school is served by the Magnet program at that campus. Moreover, the facilities are shared by students in the Magnet program and those in the home school. However, Carnegie Vanguard High School is operated as a Separate and Unique School (SUS). As a SUS, there is no home

zone and all students attending the school were in the Magnet program.

Neighborhood G/T K–12 Enrollment by Grade

Table 6 presents the enrollment of students participating in the Neighborhood G/T Grades K–5 program. During the 2005–2006 school year, a total of 8,771 students were identified for the Neighborhood G/T program Grades K–5 from 182 campuses. The percentage of students identified as G/T increased from <1 percent in Kindergarten to 23.8 percent in fifth grade.

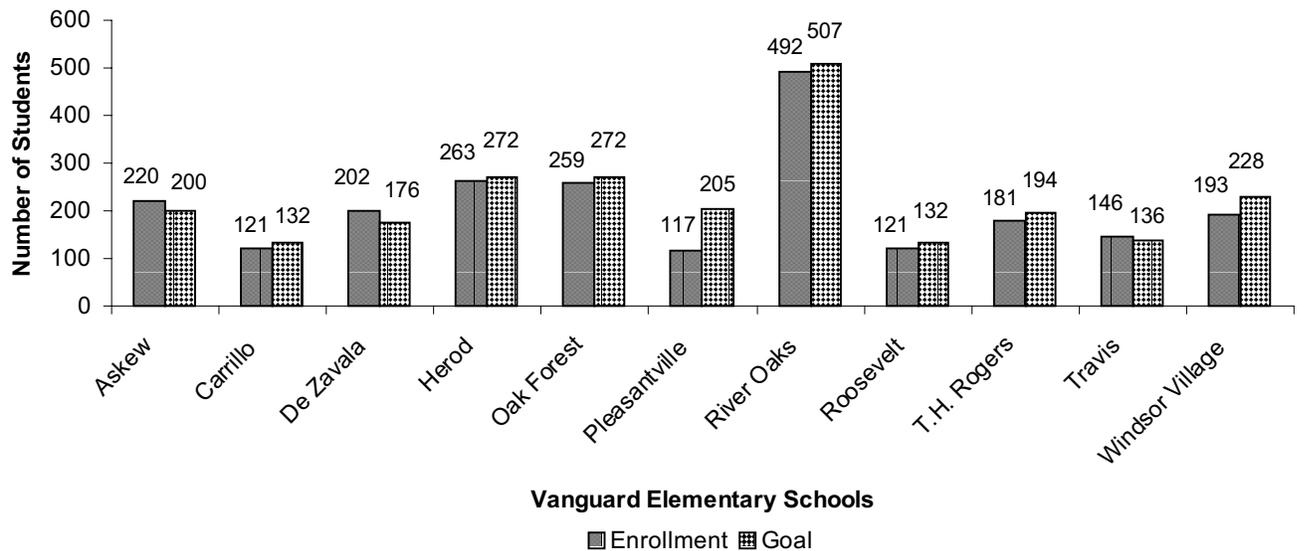


Figure 3: Elementary Vanguard enrollment and goal by campus.

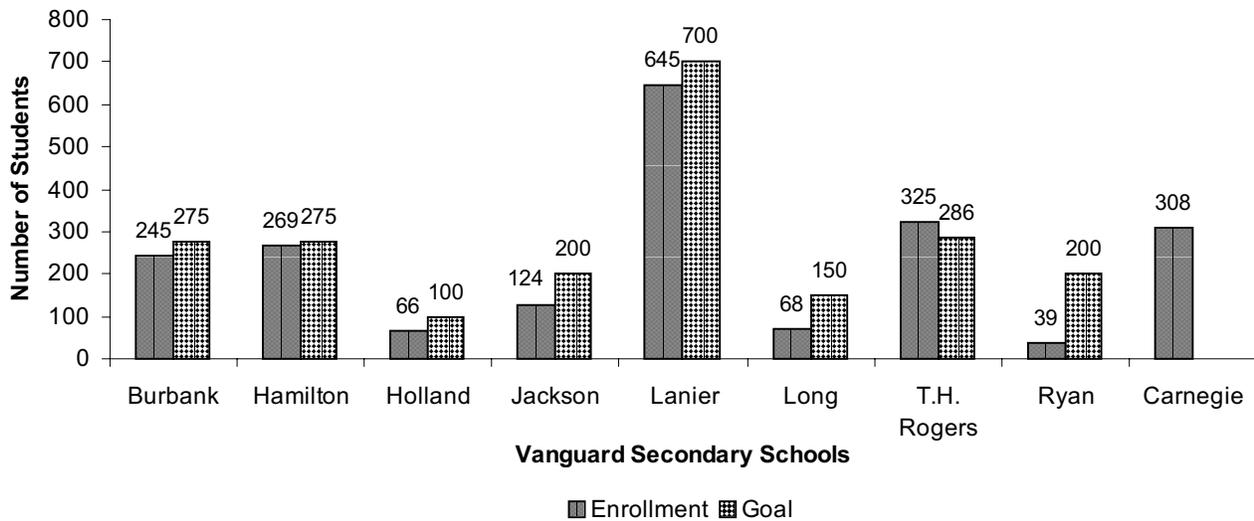


Figure 4: Secondary Vanguard enrollment and goal by campus.
 Note: An enrollment goal was not established for Carnegie Vanguard High School.

Table 7 presents the enrollment of students participating in the Neighborhood G/T Grades 6–12 program. During the 2005–2006 school year, a total of 10,265 students from 89 campuses were identified for the Neighborhood G/T Grades 6–12 program. The number of campuses included 18 elementary campuses who offered G/T services to sixth grade students. The percentage of students in middle school (grades 6–8) ranged from 10.7 percent in sixth grade to 11.6 percent in eighth grade. However the percentage of high school students served is comparatively higher. Percentages ranged from 15.9 percent in twelfth grade to 17.3 percent in ninth grade.

Comparison of G/T Demographics to the District

Table 8 shows the demographic characteristics of G/T students compared to students in the district during the 2005–2006 school year. Of the students

served in the G/T program, 41.5 percent were Hispanic, 30.8 percent were White, 16.8 percent were African American, and 10.8 percent were Asian. District-wide data indicated that Hispanic students represented the predominant racial/ethnic group (57.5 percent), followed by 30.2 percent African American students, 9.1 percent White students, and 3.2 percent Asian students. The percent of Native American students was comparable. When comparing the demographic profile of students in the G/T program to that of HISD, overall, African American and Hispanic students were underrepresented, while White and Asian students were overrepresented. More specifically, the percentage of Hispanic students in the district exceeded the percentage identified for the G/T program by 16.0 percentage points; whereas, the percentage of African American students in the district exceeded the percentage identified for the G/T program by 13.4 percentage points.

Table 6: Neighborhood G/T Grades K–5 Enrollment by Grade Level, 2005–2006

Neighborhood G/T Grades K–5		
Grade	# Enrolled	Percent
Kindergarten	4	<1%
First	1,361	15.5
Second	1,551	17.7
Third	1,813	20.7
Fourth	1,954	22.3
Fifth	2,088	23.8
Total	8,771	100.0

Source: 2005–2006 PEIMS Fall Snapshot

Table 7: Neighborhood G/T Grades 6–12 Enrollment by Grade Level, 2005–2006

Neighborhood G/T Grades 6–12		
Grade	Enrolled	Percent
Sixth	1,102	10.7
Seventh	1,146	11.2
Eighth	1,195	11.6
Ninth	1,750	17.0
Tenth	1,777	17.3
Eleventh	1,666	16.2
Twelfth	1,629	15.9
Total	10,265	100.0

Table 8: Demographic Characteristics of G/T Students and the District

	G/T		District	
	N	%	N	%
Race/Ethnicity				
African Am.	3,941	16.8	58,427	30.2
Asian	2,525	10.8	6,198	3.2
Hispanic	9,720	41.5	111,196	57.5
Native Am.	33	0.1	119	0.1
White	7,221	30.8	17,531	9.1
Gender				
Male	10,808	46.1	98,618	49.0
Female	12,632	53.9	94,853	51.0
Group				
Free/Red. Lunch	11,648	49.7	156,149	80.7
Special Ed	418	1.8	19,396	10.0
Bilingual	2,041	8.7	32,180	16.6
ESL	266	1.1	15,182	7.8
ELL	2,485	10.6	50,536	26.1
Total	23,440	100.0	193,471	100.0

Alternatively, the percentage of Asian and White students in the G/T program exceeded the percentage in the district by 7.6 and 21.7 percentage points, respectively. Regarding gender, the percentage of females exceeded the percentage of males for the G/T program and the district.

Student demographics were also reported by certain group affiliations such as Special Education, Bilingual, English as a Second Language (ESL), English Language Learners (ELL), and economically disadvantaged. The percentages for each group were markedly different for the five categories. Special Education students comprised 1.8 percent of students in the G/T program, compared to 10.0 percent of the district-wide population. The percentage of Bilingual students in the G/T program was 8.7 percent in contrast to 16.6 percent district-wide. G/T students participating in ESL comprised 1.1 percent compared to 7.8 percent of those students district-wide. G/T students identified as ELL comprised 10.6 percent in contrast to 26.1 percent district-wide. The percentage of economically disadvantaged students, determined by participation in the Free or Reduced Lunch program, was only 49.7 percent for the G/T program; whereas 80.7 percent of students district-wide were categorized as economically disadvantaged.

Vanguard/Magnet Demographics

Table 9 summarizes the demographic characteristics by Vanguard school for the 2005–2006 school year. With regard to race/ethnicity, White students

(36.3 percent) represented the major racial/ethnic group followed by Hispanic students (33.2 percent). When comparing the racial/ethnic percentages with those district-wide, however, the data suggest that Hispanic and African American students are under-represented in the program as a whole; whereas, White students and Asian students are overrepresented. More specifically, the percentage of Hispanic students in the district exceeded those identified for the Vanguard program by 24.3 percentage points; whereas, the percentage of African American students in the district exceeded those identified for the Vanguard program by 13.0 percentage points. Alternatively, the percentage of Asian and White students in the Vanguard program exceeded the percentage in the district by 10.0 and 27.2 percentage points, respectively.

When examining the racial/ethnic composition by school, the percentage of African American students ranged from 1.0 percent at De Zavala to 88.0 percent at Pleasantville Elementary Schools. For Hispanic students, the percentages by campus ranged from 6.0 percent at Pleasantville to 96.0 percent at De Zavala Elementary Schools. The percentage of White students ranged from 0.0 percent at Pleasantville Elementary School and Ryan Middle School to 75.3 percent at Travis Elementary School, while the percentage of Asian students ranged from 0.4 percent at Burbank Middle School to 50.8 percent at T.H. Rogers Elementary School.

Regarding gender, a total of 48.5 percent of the student population was male. Across schools, there was a slight difference when comparing males with females. By campus, the percentage of males in the program ranged from 41.1 percent at Burbank to 54.5 percent at Holland Middle Schools. A total of 38.5 percent of the Vanguard students were considered to be economically disadvantaged, although this figure varied across campuses from a low of 7.3 percent at River Oaks to a high of 89.6 percent at De Zavala Elementary Schools.

Neighborhood G/TK–12 Demographics

Table 10 presents the demographic characteristics of students enrolled in the Neighborhood G/T Grades K–5 program. Of the 8,771 students identified as G/T for the 2005–2006 school year, 4,100 or 46.7 percent were males and 4,671 or 53.3 percent were females.

Regarding race/ethnicity, Hispanic students represented the largest racial/ethnic group comprising 49.8 percent of the students enrolled in the program. White

Table 9: Demographic Characteristics for Vanguard Students by School, 2005–2006

School	Percent							
	Af.Am.	Asian	Hisp.	Nat. Am.	White	Male	Female	F/R Lunch
Elementary								
Askew	11.8	23.6	12.7	0.0	51.8	43.2	56.8	12.7
Carrillo	1.7	3.3	93.4	0.0	1.7	51.2	48.8	68.6
De Zavala	1.0	1.0	96.0	0.5	1.5	48.0	52.0	89.6
Herod	8.4	12.2	8.0	0.0	71.5	44.1	55.9	8.4
Oak Forest	15.4	3.1	22.4	0.0	59.1	49.0	51.0	20.5
Pleasantville	88.0	6.0	6.0	0.0	0.0	45.3	54.7	82.1
River Oaks	9.6	18.3	11.0	0.2	61.0	50.4	49.6	7.3
Roosevelt	29.8	7.4	58.7	0.0	4.1	41.3	58.7	62.0
T.H. Rogers	8.3	50.8	8.3	0.0	32.6	46.4	51.4	17.7
Travis	1.4	4.1	19.2	0.0	75.3	49.3	50.7	15.8
Windsor Village	61.7	4.7	31.6	0.0	2.1	51.8	48.2	76.7
Middle								
Burbank	15.9	0.4	80.0	0.8	2.9	44.1	55.9	84.1
Hamilton	13.8	3.0	58.4	0.0	24.9	50.2	49.8	53.2
Holland	30.3	3.0	65.2	0.0	1.5	54.5	45.5	87.9
Jackson	2.4	0.8	93.5	0.0	3.2	41.1	58.9	88.7
Lanier	13.3	14.7	18.9	0.3	52.7	52.9	47.1	21.4
Long	23.5	27.9	39.7	0.0	8.8	41.2	58.8	80.9
T.H. Rogers	10.2	40.6	17.8	0.0	31.4	48.6	51.4	19.1
Ryan	69.2	5.1	25.6	0.0	0.0	51.3	48.7	84.6
High								
Carnegie	26.9	2.9	26.6	0.3	43.2	50.3	49.7	36.7
Vanguard Total	17.2	13.2	33.2	0.2	36.3	48.5	51.5	38.5
District	30.2	3.2	57.5	0.1	9.1	51.0	49.0	80.7

Source: Vanguard data extracted from the PEIMS and SASI databases, 2005–06; District demographics extracted from fall PEIMS database for grades K–12.

students comprised 24.4 percent of the program, followed by 17.2 percent African American, 8.5 percent Asian, and 0.1 percent Native American students.

Student demographics were also reported by group affiliation: Free or Reduced Lunch, Special Education,

Table 10: Demographic Characteristics for Elementary Neighborhood G/T Students, 2005–2006

Neighborhood G/T Grades K–5		
	Enrolled	Percent
Gender		
Male	4,100	46.7
Female	4,671	53.3
Race/Ethnicity		
African Am	1,505	17.2
Asian	748	8.5
Hispanic	4,369	49.8
Native Am	9	0.1
White	2,140	24.4
Group		
Free/Red. Lunch	5,330	60.8
Special Ed	205	2.3
Bilingual	1,968	22.4
ESL	194	2.2
ELL	2,303	26.3
Total	8,771	100.0

Bilingual, ESL, and ELL. The percentage of economically disadvantaged students, which was determined by participation in the Free or Reduced Lunch program was 60.8 percent. Students identified as ELL comprised 26.3 percent of the program, followed by Bilingual students (22.4 percent). G/T students who were enrolled in Special Education or ESL represented only 2.3 percent and 2.2 percent of the participants, respectively.

Table 11 presents the demographic characteristics of students participating in the Neighborhood G/T Grades 6–12 program. Of the 10,269 students identified, 44.5 percent were males and 55.5 percent were females.

Hispanic students represented the largest racial/ethnic group comprising 37.9 percent of the students enrolled in the program. Moreover, 33.9 percent of the students were White, 16.4 percent were African American, 11.7 percent were Asian, and 0.2 percent were Native American.

Student demographics were also reported by group affiliation: Free or Reduced Lunch, Special Education, ESL, and ELL. The percentage of economically disadvantaged students, which was determined by participa-

Table 11: Demographic Characteristics for Secondary Neighborhood G/T Students, 2005–2006

Neighborhood G/T Grades 6–12		
	Enrolled	Percent
Gender		
Female	5,693	55.5
Male	4,572	44.5
Race/Ethnicity		
African Am	1,678	16.3
Asian	1,197	11.7
Hispanic	3,890	37.9
Native Am	17	0.2
White	3,483	33.9
Group		
Free/Red. Lunch	4,623	45.0
Special Ed	80	0.8
ESL	30	0.3
ELL	38	0.4
Total	10,265	100.0

tion in the Free or Reduced Lunch program was 44.5 percent. G/T students who were enrolled in Special Education represented only 0.8 percent of the participants. Students who were ESL or ELL comprised only 0.3 percent and 0.4 percent of the participants, respectively.

What evidence was there that curriculum and instruction met the needs of G/T students by modifying the depth, complexity, and pacing of the school program?

Curriculum and Instruction

According to the *Texas State Plan*, G/T programs, at a minimum, are required to provide a continuum of learning experiences that lead to the development of advanced-level products. In Texas, participation and performance on AP and IB examinations are used as high performance indicators in AEIS, the Texas Gold Performance Acknowledgment System (GPA), and the Distinguished Achievement Program (DAP). The DAP requires students to complete four advanced measures in addition to successfully completing all course requirements in order to earn this distinction. Since advanced measures may include performance on AP or IB tests, and since G/T students are required to enroll in advanced courses, AP and IB participation and results reflect appropriate outcome measures for evaluating program effectiveness. In addition, the district administers the Stanford 10, a norm-referenced achievement test for students enrolled in grades 1–11,

so that performance may be measured at all educational levels.

Stanford 10 Performance

The Stanford 10 achievement test was used to assess academic performance for a sample of students enrolled in the G/T program for 2005–2006. This test was selected because it represented a national norm-referenced examination that assesses student achievement in reading, mathematics, language, environment/science, and social science. Since G/T students represent a special population, assessing the academic performance is problematic due to a number of issues. Callahan (1992) addressed the limitations in using standardized instruments for assessing the effectiveness of educational services for G/T students. For example, many of the instruments used to assess student progress may only address traditional curricular areas such as mathematics, science, language arts/reading, and social studies. Tests typically do not have enough items at the upper end of the range to assess performance for G/T students. Additionally, statistical effects, such as regression to the mean, may mask progress. When examining the goals of the program, there is not a match with those areas being tested. Finally, HISD uses Stanford 10 as one of the quantitative measures to assess students for the G/T program, limiting comparisons between G/T and non-G/T students. Therefore, a G/T sample for both the Vanguard and Neighborhood G/T program was derived by using a stratified random sample that was drawn from 3,952 Vanguard and 15,426 Neighborhood G/T students with Stanford 10 test scores.

Table 12 summarizes the number of students taking the Stanford 10 along with the mean NCE score by grade level and G/T program. Students in the Vanguard program outperformed students in the Neighborhood G/T program for all subtests and grade levels, with the exception of second and third grade performance on the math and language subtests; the differences in performance on the math and language subtests between students in the Vanguard program and those in the Neighborhood program were not statistically significant based on the Mann-Whitney U test results. Additionally, academic performance may be further scrutinized by examining whether NCE scores fell into the below average (<44.5), average (44.5–55.6), or above average (>55.6) range. G/T test-takers from both programs had mean NCE scores that fell within the above average range for all subtests and grade levels. **Appendix D** summarizes the number of

Table 12: Stratified Random Sample of Vanguard and Neighborhood G/T Stanford 10 Mean Scores by Grade Level and Subtest, 2005–2006

Grade	# Taking		Reading Mean NCE		Math Mean NCE		Lang Mean NCE		Environmt./ Science Mean NCE		SocSci Mean NCE	
	V	N	V	N	V	N	V	N	V	N	V	N
1	354	353	75.5	73.9	77.8	74.0	78.0	76.2	66.8	62.0	†	†
2	382	382	71.7	71.2	74.2	74.5	74.3	75.4	66.6	64.0	†	†
3	369	368	75.2	73.6	77.2	77.6	72.6	74.8	74.5	72.7	74.6	71.1
4	422	421	77.6	72.8	80.2	76.9	81.0	78.1	75.0	70.7	71.6	66.9
5	393	393	76.5	70.3	81.4	77.4	77.7	72.8	76.9	70.6	75.0	66.9
6	603	584	78.3	74.8	81.6	78.2	74.7	70.5	77.8	73.8	73.2	68.2
7	569	566	74.0	70.6	82.0	78.7	77.1	74.5	76.5	71.4	72.3	69.0
8	587	585	73.1	69.1	80.2	76.9	73.9	70.7	75.5	70.5	77.2	72.4
9	112	112	75.3	70.9	76.2	74.9	73.6	70.8	76.1	68.0	73.5	64.7
10	82	82	76.8	73.1	83.1	76.6	72.8	67.6	77.7	70.3	77.1	69.2
11	79	78	81.2	76.2	82.3	74.5	78.0	73.8	78.8	69.9	78.7	71.4

Note: V=Vanguard and N=Neighborhood G/T Program

† Test not administered

students taking the Stanford 10 along with the corresponding National Percentile Rank (NPR) scores that were presented in Table 12.

A Mann-Whitney U test was conducted to evaluate whether the Stanford 10 subtest distributions deviated significantly from normal based on the type of G/T program. The results of the test were significant for reading, ($z=-10.093$, $p=.000$), mathematics ($z=-9.305$, $p=.000$), language ($z=-6.931$, $p=.000$), environment ($z=-4.530$, $p=.000$), science ($z=-12.816$, $p=.000$), and social science ($z=-14.051$, $p=.000$). Students in the

Vanguard program had higher scores than students in the Neighborhood G/T program based on the Stanford 10 subtests. **Table 13** summarizes the mean rank by Stanford 10 subtest for the Vanguard and Neighborhood G/T programs.

A Mann-Whitney U test was conducted to evaluate whether the Stanford 10 subtest distributions deviated significantly from normal based on the type of G/T program by grade level. For grade 1, the results of the test were significant for mathematics ($z=-3.194$, $p=.001$) and environment ($z=-3.805$, $p=.000$), and Vanguard

Table 13: Stanford 10 Vanguard/Magnet and Neighborhood G/T Programs: Mann-Whitney Analysis

	Program	N	Mean Rank	Sum of Ranks	z	p
Reading	Vanguard	3,919	4145.98	16248111.00	-10.093	.000
	Neighborhood G/T	3,862	3632.25	14027761.00		
	Total	7,781				
Math	Vanguard	3,918	4124.78	16160885.00	-9.305	.000
	Neighborhood G/T	3,861	3651.75	14099424.00		
	Total	7,779				
Language	Vanguard	3,919	4063.80	15926051.00	-6.931	.000
	Neighborhood G/T	3,858	3711.43	14318702.00		
	Total	7,777				
Environment	Vanguard	731	781.47	571251.50	-4.530	.000
	Neighborhood G/T	731	681.53	498201.50		
	Total	1,462				
Science	Vanguard	3,182	3440.88	10948895.00	-12.816	.000
	Neighborhood G/T	3,118	2854.16	8899255.00		
	Total	6,300				
Social Science	Vanguard	3,183	3468.93	11041619.00	-14.051	.000
	Neighborhood G/T	3,117	2825.32	8806531.00		
	Total	6,300				

students had higher scores than students in the Neighborhood G/T program. For grade 2, Vanguard students had higher scores that were statistically significant for the environment subtest, $z=-2.629$, $p=.009$. For grade 3, the results indicated that students in the Vanguard program had higher scores that were statistically significant for the social science subtest ($z=-2.920$, $p=.004$). The results of the test were significant for all subtests (reading, mathematics, language, science, and social science) for grades 4 through 8. (see **Appendix E**). For grade 9, students in the Vanguard program had higher scores than students in the Neighborhood G/T program for reading ($z=-2.557$, $p=.011$), science ($z=-4.663$, $p=.000$), and social science ($z=-5.768$, $p=.000$). For grade 10, the results of the test were significant for mathematics (-3.152 , $p=.002$), language ($z=-2.610$, $p<.009$), science ($z=-3.113$, $p=.002$), and social science ($z=-3.871$, $p=.000$), where students in the Vanguard program had higher scores than students in the Neighborhood G/T program. For grade 11, Vanguard students outperformed students in the Neighborhood program, and the results of the test were significant for reading ($z=-1.966$, $p=.049$), mathematics ($z=-2.570$, $p=.010$), science ($z=-3.362$, $p=.001$), and social science ($z=-3.362$, $p=.001$).

HISD Advanced Placement (AP) and International Baccalaureate (IB) Examination Results

In Texas, participation and performance on AP and IB examinations are indicators included in AEIS and the Texas GPA, which recognizes districts and campuses for high levels of participation and performance on AP and IB examinations. Moreover, high school G/T students are required to enroll each year in at least one advanced level class (Pre-AP, AP, Pre-IB, or IB) to remain identified as G/T. As such, AP and IB examination results for G/T students are monitored as part of this evaluation.

Tables 14 and **15** show district-wide and G/T student participation and performance on AP examinations for 2006. Additionally, Texas participation and performance and performance of national test-takers are summarized for comparative purposes. Typically, a score of three qualifies a student to receive advanced placement and/or college credit. Of the 4,358 students district-wide that participated in taking AP examinations during the 2005–2006 school year, 2,543 or 58.3 percent were enrolled in the G/T program. A smaller proportion of HISD students took AP examinations than Texas students (9.3 percent vs. 9.8 percent). HISD students outperformed students in Texas schools

by 0.5 percentage point for those exams scored at three or higher. However, nationally, students outperformed those in HISD by 10 percentage points for those exams scored at three or higher.

Since G/T students were required to enroll in AP courses, and selection for the program was based, in part, on standardized test performance, participation and performance on AP examinations for G/T students exceeded district, state, and national percentages. A higher proportion of G/T students took AP examinations than Texas students (35.7 percent vs. 9.8 percent) or HISD students (35.7 percent vs. 9.3 percent). For the 2006 school year, 2,543 HISD G/T students took 5,446 AP examinations, and 58.3 percent of the scores were three or higher. G/T performance on AP examinations scored at three or higher exceeded that for HISD, Texas, and the Nation by 10.8, 11.3, and 0.8 percentage points, respectively.

The level of AP participation and performance varied across the district when looking at school-level data (Table 14). For 2005–2006, high school participation rates ranged from 0.1 percent at Kashmere High School to 35.2 percent at Carnegie Vanguard High School. High school performance levels ranged from 0.0 percent at Phillis Wheatley High School to 86.7 percent at Bellaire High School. Out of the 31 high schools, only eight met or exceeded the state percentage (47.0 percent) of examinations that scored at three or higher.

AP participation and performance also varied markedly for campuses with G/T students (Table 15). Out of a total of 31 high school campuses, 28 campuses had five or more G/T participants. Levels of participation ranged from 0.0 percent at Eastwood Academy and Kashmere High School to 59.1 percent at Westside High School. The percentage of exams that were scored at three or higher ranged from 0.0 percent at Eastwood, Kashmere, Middle College for Technology Careers, Ross Sterling, and Evan Worthing High Schools to 88.4 percent at Bellaire High School. Out of 28 high schools with G/T participants, only 8 met or exceeded the state percentage of 47.0 percent for examinations that scored at three or higher.

Figure 5 (see page 26) compares the percentage for HISD G/T and National AP test scores of three or higher by race/ethnicity based upon the total number of G/T AP tests taken for each racial/ethnic group. Since G/T students represent a special population, as expected, the percentages for all racial/ethnic groups exceeded those for national test-takers. The percentages for each racial/ethnic group attaining a score of

Table 14: District-wide Advanced Placement (AP) Participation and Examination Performance by Campus, 2006

Campus	District-wide Participation Rate			AP Exams at or Above Criterion		
	9–12 Enrollment	No. Tested	Rate %	No. of Exams	No. Scoring 3–5	Rate %
Austin	1,825	218	11.9	325	33	10.2
Bellaire	3,456	801	23.2	2,081	1,805	86.7
Carnegie Vanguard	310	109	35.2	179	111	62.0
Challenge	313	58	18.5	67	40	59.7
Chavez	2,361	194	8.2	375	72	19.2
Davis	1,580	90	5.7	134	52	38.8
DeBakey	710	205	28.9	502	320	63.7
Eastwood	257	1	0.4	1	*	*
Furr	1,025	42	4.1	61	13	21.3
Houston	2,678	259	9.7	373	55	14.7
HSLEJC	710	98	13.8	149	76	51.0
HSPVA	678	154	22.7	254	182	71.7
Jones	1,011	33	3.3	62	2	3.2
Jordan	1,175	89	7.6	120	37	30.8
Kashmere	668	1	0.1	1	*	*
Lamar	3,539	86	2.4	92	71	77.2
Lee	2,179	95	4.4	186	33	17.7
Madison	2,403	179	7.4	239	16	6.7
MCTC-HS	219	75	34.2	113	1	0.9
Milby	2,242	146	6.5	298	78	26.2
Reagan	1,720	131	7.6	191	40	20.9
Scarborough	948	66	7.0	112	9	8.0
Sharpstown	1,834	95	5.2	167	48	28.7
Sterling	1,114	31	2.8	43	2	4.7
Waltrip	1,849	53	2.9	100	21	21.0
Washington	1,155	44	3.8	93	31	33.3
Westbury	2,445	125	5.1	243	28	11.5
Westside	3,047	693	22.7	1,267	643	50.7
Wheatley	902	43	4.8	71	0	0.0
Worthing	1,088	71	6.5	97	1	1.0
Yates	1359	51	3.8	74	2	2.7
Johnston Middle School	-	22	-	22	21	95.5
HISD	46,800	4,358	9.3	8,092	3,844	47.5
Texas	1,252,268	122,969	9.8	209,328	98,424	47.0
Nation	-	1,134,235	-	1,947,937	1,120,542	57.5

Source: 2006 National Summary Data for Public Schools; 2006 Texas Summary Data for Public Schools; 2006 College Board Report; PEIMS 2005–2006 enrollment data.

Note: Bellaire, Lamar, and Waltrip offer the International Baccalaureate program.

*Scores not reported for less than 5 students.

three or above ranged from 17.4 percent for African Americans to 69.6 percent for Whites for National AP exams scored at three or higher, and 30.2 percent for African Americans to 75.9 percent for Asians for HISD G/T AP exams scored at three or higher. There clearly is a disparity in the performance levels of African American and Hispanic students compared to White or Asian students.

This pattern is reflected for both G/T and National AP exams that were scored at three or higher, with the percentage of exams taken by White and Asian stu-

dents scoring three or higher exceeding that of African American and Hispanic students, reflecting differentials as large as 45.7 and 43.5 percentage points for HISD, respectively. Nationally, the differentials in performance among exams taken by White students and exams taken by African American and Hispanic students scoring three or higher were 52.2 and 37.8 percentage points, respectively.

Table 16 (see page 26) summarizes the number of G/T and district-wide IB test-takers, number of exams, and the percent of exams scoring four or higher by

Table 15: HISD G/T Advanced Placement Participation and Examination Performance, 2006

Campus	G/T Participation Rate			G/T AP Exams at or Above Criterion		
	9–12 Enrollment	No. Tested	Rate %	No. of Exams	No. Scoring 3–5	Rate %
Austin	199	86	43.2	152	15	9.9
Bellaire	1,276	703	55.1	1,919	1,696	88.4
Carnegie Vanguard	308	108	35.1	178	111	62.4
Challenge	130	38	29.2	47	34	72.3
Chavez	201	101	50.2	226	43	19.0
Davis	124	30	24.2	49	9	18.4
DeBakey	306	166	54.2	432	284	65.7
Eastwood	56	0	0	0	-	-
Furr	35	20	57.1	31	7	22.6
Houston	204	86	42.2	146	9	6.2
HSLEJC	119	36	30.3	70	35	50.0
HSPVA	678	153	22.6	250	179	71.6
Jones	14	9	64.3	19	2	10.5
Jordan	41	13	31.7	20	7	35.0
Kashmere	30	0	0	0	-	-
Lamar	994	54	5.4	60	49	81.7
Lee	99	28	28.3	60	11	18.3
Madison	168	63	37.5	87	2	2.3
MCTC-HS	51	29	56.9	51	0	0.0
Milby	285	79	27.7	187	50	26.7
Reagan	170	49	28.8	77	9	11.7
Scarborough	45	21	46.7	42	7	16.7
Sharpstown	78	23	29.5	41	7	17.1
Sterling	61	9	14.8	15	0	0.0
Waltrip	279	29	10.4	60	15	25.0
Washington	96	26	27.1	64	23	35.9
Westbury	131	45	34.4	97	15	15.5
Westside	820	485	59.1	976	555	56.9
Wheatley	50	18	36.0	39	2	5.1
Worthing	59	29	49.2	43	0	0.0
Yates	21	4	19.0	5	*	*
Johnston Middle	-	3	-	3	*	*
HISD	7,128	2,543	35.7	5,446	3,177	58.3
Texas	-	-	-	-	-	-
Nation	-	-	-	-	-	-

Source: 2006 College Board Datafile; PEIMS 2005–2006 enrollment data.

Note: Bellaire, Lamar, and Waltrip offer the International Baccalaureate program. G/T identification code was missing for 65 students.

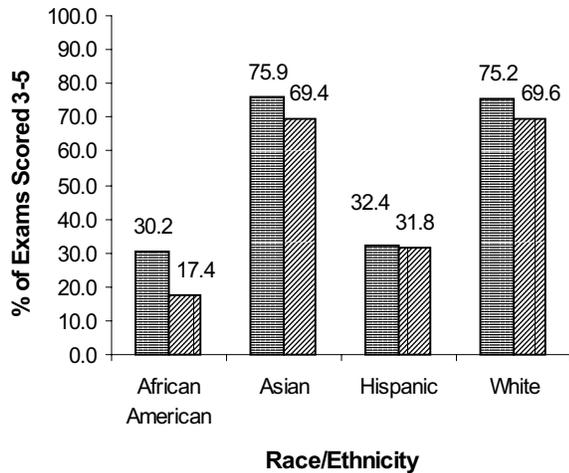
*Scores not reported for less than 5 students.

campus for 2006. A total of 373 students took 1,027 IB examinations district-wide, with 79.7 percent of the exams scored at four or higher. For G/T students, a total of 305 students took 868 examinations with 82.9 percent scoring four or higher. According to the International Baccalaureate Organization (2006), 79 percent of IB exams scored in the 4–7 range in Texas. Overall, a higher percentage G/T and HISD students received passing scores on the IB examination.

Alternatively, results differed by campus. District-wide, 61 Bellaire students took a total of 164 IB exams

where 92.1 percent of the exams were scored at four or higher. At Mirabeau Lamar High School, 304 students took a total of 834 IB exams where 77.9 percent of the exams were scored at four or higher. Eight Stephen Waltrip High School students took a total of 29 exams and 62.1 percent of the exams earned a score of four or higher.

For G/T test-takers at Bellaire High School, 57 students took a total of 159 IB exams where 91.8 percent of the exams scored four or higher. At Lamar High School, 248 students took a total of 709 IB exams



■ % HISD G/T AP Exams 3-5 ■ % National AP Exams 3-5

Figure 5: Percentage of HISD G/T and National AP exams scoring three or higher by race/ethnicity, 2006.

where 81.0 percent of the exams were scored at four or higher. G/T coding was not available for Waltrip High School’s participants. District-wide, only students attending Bellaire High School exceeded the state level of performance where 79 percent of IB exams scored in the 4–7 range; however, G/T students attending at Bellaire and Lamar High Schools exceeded the state performance level.

Students who were Diploma Candidates were required to study and take examinations in six different academic subjects. They were also required to take a critical thinking class known as *Theory of Knowledge*; document participation in 150 hours of *Creativity, Action, and Service* activities; and write an extended essay based upon original research. If a student fulfilled these requirements and earned a total of twenty-four points on six exams (each exam was

graded on a scale from 1 to 7), an IB diploma was awarded.

Table 17 depicts the number of candidates and students who earned the IB diploma district-wide and those participating in the G/T program during the 2005–2006 academic year. Overall, there were 90 diplomates district-wide and 86 of them were participating in the G/T program.

The number of IB diploma recipients differed markedly by campus. District-wide, Bellaire High School had a total of 23 candidates and 22 of these earned an IB diploma. Lamar High School awarded the IB diploma to 66 students out of a total of 86 candidates, and Waltrip High School had 2 diplomates. For students participating in the G/T program, Bellaire High School had a total of 23 candidates and 22 of these earned an IB diploma. Lamar High School had 78 candidates and 64 of these earned an IB diploma. G/T coding was not available for students attending Waltrip High School.

DAP Transcript Seal Recipients

The state’s honors degree program, the Distinguished Achievement Program (DAP) consists of AP and IB curriculum courses. Vertical alignment of lower level courses to support these offerings are Pre-AP and/or International Baccalaureate Middle Years Program (IBMYP) courses. The DAP requires high performance beyond that expected of students in high school

Table 17: Number of District-wide and G/T IB Candidates and Diplomates by School, 2006

	District		G/T	
	Candidates	Diplomates	Candidates	Diplomates
Bellaire	23	22	23	22
Lamar	86	66	78	64
Waltrip	2	2	-	-
Total	111	90	101	86

Note: G/T coding not available for Waltrip’s Diplomates.

Table 16: District-wide and G/T IB Exam Performance, 2006

School	District			G/T		
	# Taking	# of Exams	% of Exams Scoring 4–7	# Taking	# of Exams	% of Exams Scoring 4–7
Bellaire	61	164	92.1	57	159	91.8
Lamar	304	834	77.9	248	709	81.0
Waltrip	8	29	62.1	-	-	-
Total	373	1,027	79.7	305	868	82.9

Note: G/T coding not available for Waltrip’s participants.

by including an external evaluation component. Furthermore, the DAP requires students to complete four advanced measures in addition to successfully completing all course requirements in order to earn this distinction. Advanced measures include the following categories: research project, test data, and/or college courses. Students may earn the four advanced measures in any combination of the aforementioned categories. For example, students may earn advanced measures by scoring a three or above on any of the AP examinations or by scoring a four or above on any of the IB examinations. Since the basis of the G/T program at the secondary level focuses on Pre-AP/AP and IBMYP/IB curricula, the DAP transcript seal was used as a measure of achievement for students in the G/T program. Additionally, one of the primary goals for G/T students is to continue their education. Out of the 1,421 G/T graduates, 1,391 or 97.9 percent indicated that they were planning to attend college within one year of graduation.

Table 18 shows the number of students receiving the DAP transcript seal district-wide, and the number of G/T students who received the DAP transcript seal for 2005 by campus. A total of 221 students from 12 high school campuses earned the DAP transcript seal, and 199 of those were G/T students.

G/T students earning the DAP transcript seal for 2005 were tracked back to their middle school in order to analyze their educational path. A total of 111

Table 18: Number of HISD and G/T Students Earning the DAP Transcript Seal by Campus, 2005

<u>Campus</u>	<u>District</u>	<u>G/T</u>
Austin	1	1
Bellaire	75	66
Carnegie Vanguard	9	9
Chavez	1	1
DeBakey	40	39
HSLECJ	2	2
HSPVA	15	15
Lamar	47	39
Madison	3	2
Sharpstown HS	3	0
Washington	5	5
Westside	20	20
Total	221	199

Note: Total graduates = 8,476

students out of the 199 were followed to their respective middle schools. **Table 19** is a matrix which depicts the number of DAP transcript seal recipients for each middle school aligned by high school. For example, one student from Burbank Middle School attended Booker Washington High School and earned a DAP transcript seal. Close inspection of Table 19 shows that a total of 41 students from Lanier Middle School continued their educational studies at Bellaire High School (n=14), Michael DeBakey High School for

Table 19: Educational Path Illustrating the Number of G/T DAP Transcript Seal Recipients by School, 2005

<u>Middle School</u>	<u>2</u>	<u>8</u>	<u>10</u>	<u>16</u>	<u>25</u>	<u>26</u>	<u>27</u>	<u>34</u>	<u>36</u>	<u>322</u>	<u>Total</u>
Burbank				1							1
Clifton					1						1
Fleming						1					1
Fondren			1			1					2
Grady						1			1		2
Hamilton		1				1					2
Hartman				1			1				2
Jackson						1					1
Johnston	3				1				2	2	8
Key	1										1
Lanier	14	17		1	3	5		1			41
Long	2					1				1	4
Pershing	5	1	1		1						8
Revere					1	2			9		12
Rice School		1				3					4
T.H. Rogers	8					4			1	4	17
Sharpstown						2					2
Welch					1	1					2
Total	33	20	2	3	8	23	1	1	13	7	111

Key: 2=Bellaire, 8=Lamar, 10=Madison, 16=Washington, 25=HSPVA, 26=DeBakey, 27=Chavez, 34=HLSEJC, 36=Westside, 322=Carnegie

Health Professions (n=5), High School for Law Enforcement and Criminal Justice (n=1), HSPVA (n=3), Lamar High School (n=17), and Washington High School (n=1) to culminate their educational tenure with the DAP transcript seal. If the middle schools were ranked based upon the number of DAP transcript seal recipients, the top three would include Lanier (n=41), T.H. Rogers (n=17), and Paul Revere (n=12) Middle Schools. The high schools for which the most DAP transcript seal recipients graduated included Bellaire (n=33), DeBakey (n=23), and Lamar (n=20).

What evidence was there that all personnel involved in the planning, development, and delivery of services to G/T students had knowledge to enable them to offer appropriate options and curricula for G/T students?

Professional Development

Texas law requires that teachers who provide instruction and services to G/T students have a minimum of 30 hours of staff development that includes the nature and needs of G/T students, assessing students' needs, and curriculum and instruction for G/T students (19 TAC §89.2(1)). These teachers are also required to complete a minimum of six hours annually of professional development in G/T education (19 TAC §89.2(3)). Administrators and counselors who have authority for program decisions are required to receive a minimum of six hours of professional development that includes nature and needs of G/T students and program options for G/T students (19 TAC §89.2(4)). In addition to the state's professional development requirements, HISD requires teachers to complete the six-hour G/T Curriculum Framework, "Scholars and Knowledge." Although this training is not mandated for administrators or counselors, information on "Scholars and Knowledge" is incorporated in many of the professional development opportunities offered.

HISD G/T Certification

An extract from PeopleSoft, which contains HISD personnel data, indicated that 1,640 staff (teachers, counselors, and administrators) of the 13,288 staff in HISD (12.3 percent) were certified to teach or had the authority for making G/T program decisions on either the elementary or secondary levels during the 2005–2006 school year. Of the 1,640 G/T staff members, 1,502 had completed the G/T Basic 30-hours for Elementary certification and/or held a G/T Continuing Education Certificate. At the secondary

level, 814 staff members had completed the G/T Basic 18-hours for certification. Additionally, 13 staff members held a G/T certification. The majority of these staff members held a bachelor's degree (69.6 percent), while 29.3 percent held a Master's degree, and only 1.2 percent held a Doctorate. One-third or more of the G/T teachers were African American (37.1 percent) or White (33.3 percent), while only 25.2 percent were Hispanic, and only 4.3 percent were Asian. The 1,640 staff members were located on 258 campuses, with Braeburn Elementary and Ruby Clifton Middle Schools having the highest number of G/T certified staff members, followed by Walnut Bend and Jonathan Wainwright Elementary Schools, and Pin Oak Middle School (25, 25, 24, 22, and 22, respectively).

HISD G/T Professional Development: e-TRAIN

The director of e-TRAIN provided an extract of G/T training sessions offered by the district extending from June 1, 2005 through May 31, 2006. It is important to reiterate that these data do not reflect training opportunities outside of e-TRAIN. For example, summer training through the AP Institute was not included. During the 2005–2006 school year, 366 participants completed a total of 20 different training sessions. **Table 20** shows the topical areas, derived from the 20 sessions, the type of course, the number of participants completing the session, the number of professional development hours each session warranted, and the total number of hours earned based upon the number of participants. State mandated courses included the G/T 12-Hour Institute including "Scholars and Knowledge" for grades 6–8 and the G/T 18-Hour Institute, with "Scholars and Knowledge"; HISD mandated courses included, but were not limited to, G/T Curriculum Framework: "Scholars and Knowledge" and G/T 30 Foundation Hours. A few of the Skill Development courses that were offered included Searching for Bobby Fischer and G/T GEMS Space Science. In the district, the 366 participants completed 3,624 hours of training. Of the 366 participants, 279 earned 6 hours, 24 earned 12 hours, 19 earned 18 hours, and 44 earned 30 hours of training for the 2005–2006 academic year.

What evidence was there that the district regularly encouraged community and family participation in services designed for G/T students?

Family-Community Involvement

According to Texas law, school districts are required to evaluate the effectiveness of G/T programs

Table 20: Summary of e-TRAIN G/T Sessions, 2005–2006

Course Description	N	Hours	Total
Mandated, State			
GT 12Hr Institute + S&K 6-8	14	12	168
GT 30Hr Institute + S&K, K-5	30	30	900
GT Scholars & Knowledge	30	6	180
Mandated, HISD			
GT 30 Foundation Hours	14	30	420
GT 6 Hr Admin & Counselors	12	6	72
GT 6 Hr Update Think Discipline	19	6	114
GT Elementary	9	6	54
GT Framewk Scholar & Know Elem.	14	6	84
GT Framewk Scholar & Know Secon.	15	6	90
GT Secondary	11	6	66
Mandated, Grant			
GT - Changes/Solids & Liquids	31	6	186
GT: Bridging II - Tools/Materials	23	6	138
Skill Development			
GT 12 Hour Training Contract	10	12	120
GT 3-Day 18- Hours	19	18	342
GT 6Hr Update Bobby Fischer	32	6	192
GT GEMS Space Science	7	6	42
GT GEMS Space-Physical Science	3	6	18
GT Update & Differentiated	25	6	150
Continuing Education			
GT 6 Hr Update Differentiated	30	6	180
GT Day 2 Social & Emotional	18	6	108
Total	366	-	3,624

annually and to include parents in the evaluation process (TEC §11.251-11.253), and to provide an array of learning opportunities for G/T students in kindergarten through grade 11, and to inform parents of the opportunities (TAC §89.3)

The Department of Research and Accountability has conducted an annual evaluation of the G/T program since the 2001–2002 academic year (Department of Research and Accountability, 2002; 2003; 2004; 2005). Data collected from the evaluations have been used at the administrative and campus levels. Program information for parents may be disseminated at the campus level in the form of brochures, letters, meetings, and/or information sessions. Moreover, the Department of Advanced Academics has established a website with program information, application forms, and links for organizations such as The Texas Association for the Gifted and Talented, National Association for the Gifted and Talented, and the University of North Texas, Gifted Education. During the spring of 2006, the *Elementary G/T and Science*

Implementation Principal Survey was distributed to elementary campuses using a web-based survey with a follow-up using e-mail (Appendix B). Due to logistical problems that centered primarily on the web-based technology, only 87 survey forms were completed out of 206, for a 42.2 percent response rate. There were 13 questions that addressed G/T program implementation.

Respondents were asked to indicate what information was on file documenting the level of Family-Community Involvement. **Table 21** summarizes the number responses. Out of 87 campuses, 82 provided at least one response. For those campuses providing at least one response, 100 percent indicated that a campus letter was sent to parents providing information about their G/T program, application availability starting dates, and procedures for applying. Campus brochures (n=61), PTA Agendas discussing the G/T program (n=38), and faculty meeting agendas documenting G/T information/discussions (n=46) all represent different venues for increasing parental awareness of the G/T program at the campus level. Other methods of communicating information to parents included the following: parent meetings (agendas, minutes, and sign-in sheets),

Table 21: Summary of Family-Community Involvement Documentation

Document	N	%
Campus brochure	61	74.4
Campus letter	82	100.0
All PTA Agendas with G/T information discussed	38	43.7
All Faculty Meeting Agendas with G/T information discussed	46	52.9
Other (specify)	9	10.3

school/HISD website, school newsletter, and school tours and meetings established by the Magnet Coordinator.

Table 22 summarizes the obstacles to G/T program implementation by emergent category. Out of a total of 87 surveys, 58 campuses provided at least one response. Campuses indicated that having a small G/T population was one of the biggest obstacles faced regarding program implementation (n=10). When G/T students are served in a regular classroom, it is important to have a critical mass of students that can work together, discuss ideas, and motivate one another. State Law requires that classrooms have a minimum of three G/T students. Several campuses stated that their low G/T population was due to the fact that zoned G/T students left to attend other “specialty” schools, or parents hesitated to place their child in a G/T program because of a lack of understanding about their child’s educational needs and how those needs would be met in a G/T program. In other instances, identification of qualified students, especially for G/T Bilingual classrooms, represented a major obstacle that resulted in a small G/T population.

Table 22: Summary of Obstacles Faced for Program Implementation

Obstacles by Category	N
None	16
Small G/T Population	10
Certification/Training	10
Parent Buy-In	6
Not Applicable	4
Teachers	3
Financial	3
Paperwork	2
Qualifications/Time	1
Blank	29

A second obstacle centered on G/T certification and training (n=10). The time required for teachers to attend training may impact classroom instruction, and scheduling G/T training to meet state requirements both represented obstacles. Campuses indicated that training opportunities to meet the initial 30-hour state mandate may take G/T teachers out of the classroom and consequently impact the instructional day. Additionally, respondents indicated that professional development opportunities for the required six-hour update were not always scheduled conveniently.

Parent buy-in (n=6) was cited as an obstacle by respondents. Communication appeared to be the primary issue. Although campuses provided different venues for communicating information about the G/T program, some respondents indicated that attendance at meetings (i.e. Parent Advisory Committee, Shared-Decision-Making Committee, general informational) was an issue, as well as having parents complete and submit the G/T application in a timely manner. At some campuses, parents appeared to be hesitant to place their children in the program because they did not fully understand the educational benefits of the program. For the Neighborhood G/T program, respondents indicated that parents found it difficult to see the differentiation in instruction. In other words, it may not appear that G/T services were being provided.

Other obstacles cited by respondents included teachers that found it difficult to plan accordingly to meet the needs of G/T students in the Neighborhood G/T program, or had difficulty implementing the *Scholars and Knowledge* G/T framework (n=3). Financial issues (n=3) regarding training G/T teachers and having funds for taking G/T students on field trips were cited by respondents. Paperwork (n=2) and time for planning and implementing the program (n=1) represented additional obstacles.

On the survey, respondents were asked what one aspect they would like to change about the G/T program on their campus. Out of 87 surveys, 56 campuses provided at least one response. Ten campuses indicated that no changes were needed. Alternatively, several respondents indicated that areas centering on curriculum and instruction (n=10) required change. The majority of respondents requested more activities and projects by grade level to be incorporated in the instructional day. One suggestion was to develop a G/T handbook that included appropriate ideas for activities, a program overview, frequently asked questions, and materials suggestions. Some campuses

wanted to target developing more activities to a specific core area such as science. To facilitate with managing instruction, additional teacher assistants were suggested to assist students with projects or activities. Other ideas centered on changing the schedule so that a block of time would be devoted daily for providing instruction in the four core areas to G/T students. Alternatively, another idea was to designate G/T teachers for each grade level to provide all G/T instruction.

Campuses were interested in changing their G/T model to include a Pull Out component (n=7). A Pull Out model would serve smaller populations, target only G/T students, and ensure that the students were being served. Other ideas included incorporating a G/T progress report so that parents were apprised of progress and specific activities that were accomplished in the classroom.

Respondents indicated that areas centering on student assessment for the program should change. Currently, kindergarten students are assessed universally in the fall, results are provided to the campuses so that services can be provided by March 1. Respondents stated that rather than wait until spring, the timeline should be modified so that kindergarten students can be assessed and served during the first several weeks of school. To accomplish this, all of the testing results would need to be provided to the campuses in a much shorter timeframe. Another change suggested centered on taking a more “inclusive” approach to identifying students for the program so that those groups that are typically under-represented would be included. Regarding test scores, one suggestion was to use the current year’s test scores rather than the scores from the previous year.

During the 2005–2006 school year, the Gifted and Talented PEER Review Committee formed in order to examine and evaluate the program design and admission practices regarding the Vanguard and Neighborhood G/T programs and to report their findings and recommendations to the HISD Board of Education. The following objectives were addressed:

- Conduct a program review of the effectiveness of G/T Neighborhood and Vanguard programs,
- Review current program designs,
- Address the admissions policies and specifically the tier system and sibling policy.

During the three-month process, the committee received input from a number of sources, including interviewing parents of children in both G/T programs.

This input was incorporated in the findings and recommendations put forth by the G/T PEER Review Committee. Findings and Recommendations may be found on the HISD website (Gifted and Talented PEER Review Committee, 2006).

Subsequent evaluations will report on the implementation plan resulting from the findings and recommendations of the G/T PEER Review Committee; the scope of this evaluation is to report on developments completed within the 2005–2006 academic year.

Discussion

A quality G/T program is in compliance with state guidelines as outlined in the *Texas State Plan for the Education of Gifted/Talented Students*, which forms the basis of program accountability for state mandated services (TEC §29.123). There are five components addressed in the plan:

- Student Assessment,
- Program Design,
- Curriculum and Instruction,
- Professional Development, and
- Family-Community Involvement.

The purpose of this evaluation was to document the current status of the program. The major findings of this evaluation will be discussed and will be followed by recommendations for program improvements.

Student Assessment

Over the past five years, the percentage of students in HISD identified as G/T has increased, with the exception of 2003, while G/T enrollment at the state level has declined over the same time period. District G/T percentages have exceeded state G/T percentages over the past five years, with the largest differential occurring for the 2005–2006 school year (3.6 percentage points). These data indicate that the district has an over-representation of students in the G/T program, especially when previously published state documentation established that districts should have approximately 8 percent of the students identified as G/T (Texas Education Agency, 2002). There are primarily two factors impacting the number of students identified for G/T program services. These include the policies outlined by the district for student assessment and the logistical aspects of implementing those policies.

When comparing the demographic profile of those students in the G/T program to that of the district,

African American and Hispanic students were underrepresented, while White and Asian students were overrepresented. Furthermore, the data indicate that minorities apply for the kindergarten and sixth grade Vanguard program at disproportionately lower rates compared to the composition of the district. The data suggest that a concerted effort is needed to identify a greater number of minority students for the program. This may be accomplished, in part, by increasing the level of awareness of the program early in the educational process so that parents are cognizant of the services prior to their child's enrollment in kindergarten. One strategy would be to target HISD preschool programs and Early Childhood Centers. Another strategy would entail using census data to create a map of preschool age children and send information about the program to families zoned to HISD. Additionally, the district should continue efforts to provide staff development opportunities for teachers centering on identifying G/T students, especially nontraditional G/T students, and those providing instruction to preschool age children.

Program Services

There are still some campuses in the district that offer a G/T program, but have not identified any G/T students, or their G/T enrollments are so low that classes have fewer than the state minimum requirement of 3 students. It is crucial that campuses, especially those with a program and no students, receive additional support from the G/T Supervisor for student assessment. Alternatively, consideration should be given to enlisting the Department of Research and Accountability for data to assist campuses that offered Neighborhood G/T services, but did not identify any G/T students.

There are differences in the services provided when comparing the Vanguard and Neighborhood G/T programs because of the program design, the number of G/T students identified, the number of teachers trained to work with G/T populations, the Pre-AP and AP course offerings, and personnel available to monitor and support the program. Vanguard students were served in homogenous classrooms while the predominant model used by the Neighborhood G/T program was to integrate G/T students in the regular classroom. Survey results indicated that some neighborhood campuses would like to change their model to a Pull Out model because of a lack of identified students. In a neighborhood setting, a classroom may be composed

of many different types of students such as special education, regular education, G/T, and bilingual. Teachers must address the needs of all of their students; it is difficult to find time in the instructional day to meet those needs on a daily basis.

Survey results indicated that one of the biggest obstacles faced by elementary campuses implementing the Neighborhood G/T program was identifying a critical mass of G/T students on their campuses. G/T students need to have the opportunity to work with their cognitive peers, and there were 97 campuses that had fewer than 3 students for at least one grade level indicating that additional support is needed to ensure that state guidelines are fulfilled. Where G/T student enrollment has traditionally been low, it may be beneficial to work out an agreement with another neighboring HISD school so that a critical mass of students may be served.

The Neighborhood G/T coordinator is not a full-time position; yet, the duties assigned to the coordinator clearly reflect administrative responsibilities. The added administrative duties impose a heavy burden on these staff members. At some campuses, the number of applications received is voluminous. Although a network of personnel to support and monitor the Neighborhood G/T program was established, formally setting up an avenue to delegate these responsibilities has not been fully addressed.

For the Vanguard program, implementation tended to be uniform because a systemic framework was in place. All Vanguard campuses had a full-time coordinator who was responsible for support and implementation of the program. All applications were reviewed by a centralized admissions committee, which consisted of at least three members with the requisite G/T training. Additionally, the Advanced Academics Department directly supervised the Vanguard program. Furthermore, enrollment goals were established at all of the campuses controlling enrollment in the program. When comparing the actual enrollment to the enrollment goal, it is clear that some of the programs had very low levels of G/T students being served (Pleasantville Elementary School, Holland, Jackson, Long, and Ryan Middle Schools). Additional monitoring and support of the program should assist in increasing the quality of services offered and the number of students being served.

The district conducts a universal assessment of kindergarten and fifth grade students annually. Kindergarten students, who were identified during the univer-

sal assessment, were served by March 1, 2004. Through the use of uniform criteria for assessing G/T students, the district embarked in a positive direction toward equitability for identifying exceptional students.

Curriculum and Instruction

To address curriculum alignment, the Advanced Academics Department developed a curricular framework entitled “Scholars and Knowledge.” The framework consisted of four strands: ascending levels of intellectual demand, concepts, differentiation, and products. Moreover, inservices were offered throughout the 2005–2006 school year. This represents an important step toward ensuring that students make a seamless move from elementary to middle to high school. However, based upon information in the Secondary Guidelines, campuses determine which Pre-AP and AP courses to offer. Issues pertaining to alignment may arise. Additionally, special issues are faced by magnet schools, which enroll students from all over the district. Developing strategies to ensure that students have the educational foundation so that they are prepared to take advanced classes is paramount. For example, vertical teams for the G/T program, composed of an upper level and lower level high school teacher, a middle school teacher, and a 5th or 6th grade teacher along with a school counselor and G/T Supervisor for the respective feeder patterns would enhance the existing vertical teams in place, by including G/T teachers and administrative personnel familiar with the needs of G/T students.

An important issue in evaluating the quality of a G/T program is the achievement of its students. Students entering the program have high achievement scores as measured by the Stanford/Aprenda, TAKS, and/or Naglieri Nonverbal Ability Test (NNAT). Since G/T students represent a special population, assessing the academic performance of G/T students is problematic due to a number of issues. For one, many of the instruments used to assess student progress only address traditional curricular areas such as mathematics, science, language arts/reading, and social studies. Tests typically do not have enough items in the upper end of the range to assess performance for G/T students. Additionally, statistical effects, such as regression to the mean, may mask progress. For example, G/T students do not represent a normal distribution with regard to achievement. They cluster at one extreme of the distribution of standardized test scores. Missing just one question may cause students

who scored very high one year to slip back a little or appear to “regress” the next year. Finally, when examining the goals of the program, there is no match with those areas being tested (Callahan, 1992).

Alternatively, Beggs, Mouw, & Barton (1989) suggested using nationally normed achievement tests as a way of identifying overall strengths or weaknesses of a program, while recognizing that limitations exist such as those outlined by Callahan (1992).

With the continued implementation of the AP Initiative, enrollment in advanced courses of all students would represent an important strategy to increasing the number of students taking challenging courses. In addition to increasing enrollment, strategies for retention represent the second strategy. Affective support groups, individual counseling, practices focusing on time management, study skills, organizational skills, along with a tutoring program would be important components for success. Since participation and performance in advanced academic programs varied markedly by campus, stakeholders interested in raising the participation and level of performance in advanced academic programs need to monitor the quality and rigor of the Pre-AP and AP courses, strengthen professional development, and strengthen the foundation of all students at all educational levels through vertical teams.

Professional Development

The district has moved forward with regard to creating a database of G/T professional development/training opportunities. For the current year, 366 participants completed training. This number does not fully capture the training received by district staff members because not all professional development opportunities are tracked through e-TRAIN.

Family-Community Involvement

The Department of Research and Accountability has conducted an annual evaluation of the G/T program for the past four years (Department of Research and Accountability, 2002; 2003; 2004; and 2005). Data collected from previous evaluations have been used at the administrative and campus levels. The G/T monitoring framework is in place, and G/T supervisors monitor and support the G/T program at the campus level. The primary vehicle for communicating the G/T program to parents based on survey results was a campus letter followed by a campus brochure. Parent input was sought by the G/T PEER Review Committee

and their input was incorporated in the findings and recommendations put forth.

The G/T program provides the educational foundation for our future leaders. However, for the program to reach its full potential, state, district, and school level support are essential. The commitment on the part of the district to support a program that challenges students reaffirms their strategic intent, which is to make HISD the educational system of choice.

Recommendations

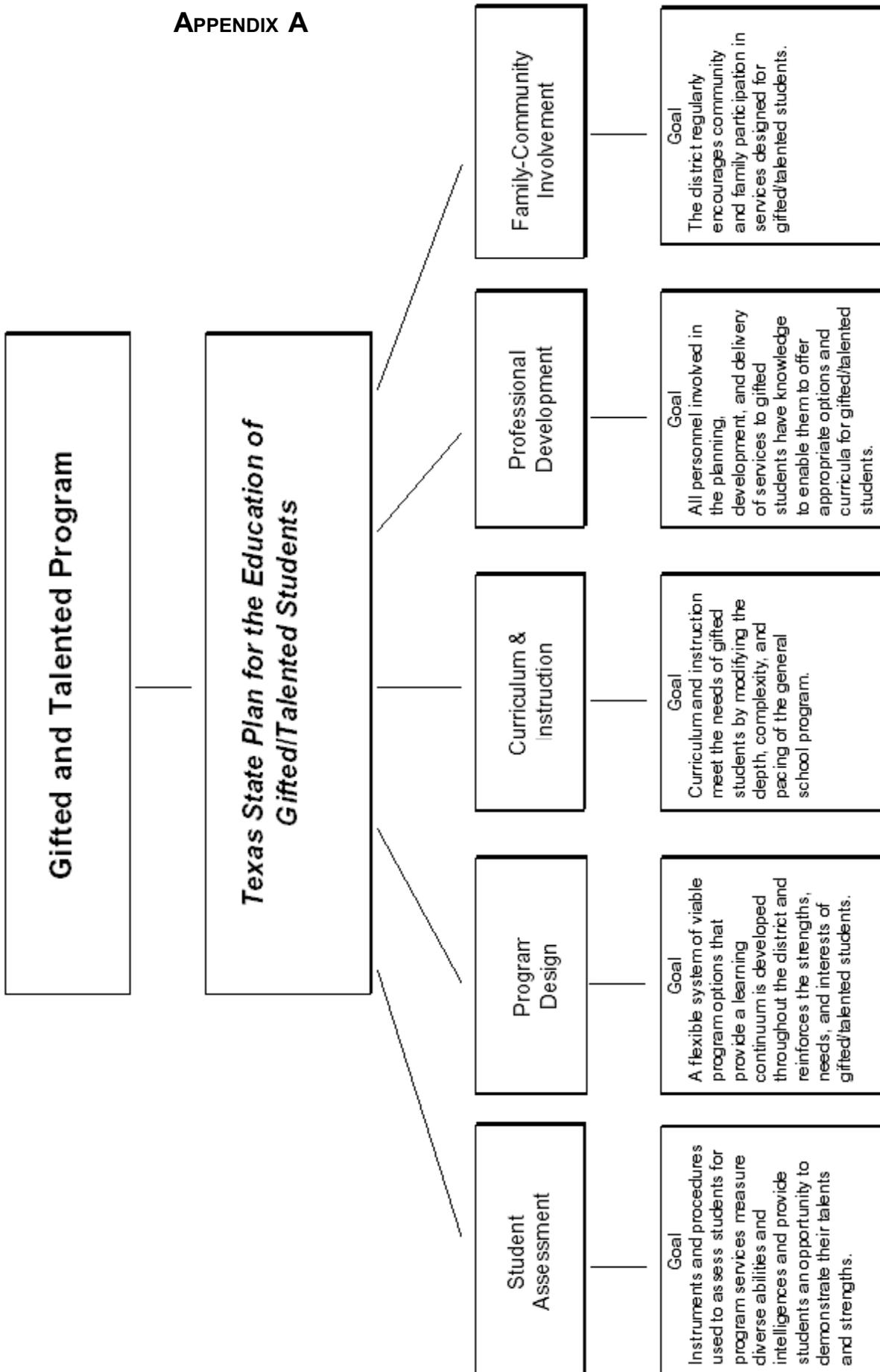
1. To ensure that a quality G/T program is in place according to the *Texas State Plan*, continue monitoring the G/T program, especially those campuses where program enrollment levels are low and where participation and performance data are low. Consider providing support to these campuses to improve the quality of the program.
2. Target recruitment efforts for the Vanguard program at the preschool level, as kindergarten serves as a critical entry point where the racial/ethnic composition is essentially locked-in for the elementary years. With low program attrition, far fewer slots open up in subsequent years.
3. Upgrade the Neighborhood G/T coordinator position to reflect the administrative responsibilities, or provide assistance by delegating the duties to the G/T supervisors, or enlist assistance from available campus and clerical staff for coordinators with full-time teaching responsibilities.
4. Continue training district personnel on implementing the G/T Curriculum Framework, “Scholars and Knowledge,” to support students in making a seamless transition from elementary to middle to high school.
5. Since campuses select Pre-AP and AP course offerings, issues pertaining to vertical alignment may arise. Consider developing vertical teams for the G/T program, composed of an upper level and lower level high school teacher, a middle school teacher, and a 5th or 6th grade teacher along with a school counselor and G/T Supervisor for the respective feeder patterns in order to develop strategies so that students are prepared for taking advanced coursework, especially in mathematics and science.
6. In accordance with the *Texas State Plan*, results of this year’s evaluation should be reflected in the district and campus improvement plans.

References

- Academic Excellence Indicator System Report. (2001). 2000–01 District Performance. Retrieved June 7, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2001/index.html>
- Academic Excellence Indicator System Report. (2002). 2001–02 District Performance. Retrieved June 7, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2002/index.html>
- Academic Excellence Indicator System Report. (2003). 2002–03 District Performance. Retrieved June 7, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2003/index.html>
- Academic Excellence Indicator System Report. (2004). 2003–04 District Performance. Retrieved June 7, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2004/index.html>
- Academic Excellence Indicator System Report. (2005). 2004–05 District Performance. Retrieved June 7, 2006 from <http://www.tea.state.tx.us/perfreport/aeis/2005/index.html>
- Academic Excellence Indicator System Report. (2006). 2005–06 District Performance. Retrieved January 24, 2007 from <http://www.tea.state.tx.us/cgi/sas/broker>
- Beggs, D.L., Mouw, J.T., & Barton, J. (1989). Evaluating gifted programs: Documenting individual and programmatic outcomes. *Roeper Review*, 12, 73-76.
- Callahan, C.M. (1992). *Determining the Effectiveness of Educational Services: Assessment Issues*. (ERIC Document Research Services No. ED344416)
- College Board, AP Central. (2006). *About the Advanced Placement Program*. Retrieved August 30, 2006 from <http://www.collegeboard.com/student/testing/ap/about.html>
- College Board. (2005a). *National Summary Report*. Retrieved on August 9, 2006 from http://www.collegeboard.com/prod_downloads/student/testing/ap/sumrpts/2005/xls/national_summary.xls
- College Board. (2005b). *State Summary Report*. Retrieved on August 9, 2006 from http://www.collegeboard.com/prod_downloads/student/testing/ap/sumrpts/2005/xls/TEXAS_Summary.xls
- Department of Research and Accountability. (1994). *Vanguard Program: 1993–94*. Houston, Texas: Printing Services.
- Department of Research and Accountability. (2002, 2003, 2004). *Gifted and Talented Program Evaluation*. Houston, TX: HISD.
- Department of Research and Accountability. (2005). *An Evaluation of Programs Serving Gifted and Talented Students in HISD*. Houston, TX: HISD.
- Department of Research and Accountability. (1997, 2000). *International Baccalaureate Final Reports*. Houston, TX: HISD.
- Gifted and Talented PEER Review Committee. (2006). *Findings and Recommendations of the HISD Gifted*

- and Talented/Vanguard Magnet PEER Review Committee. Retrieved on September 8, 2006 from [http://www.houstonisd.org/2301/images/Goal %20B %20-%20GT%20Vanguard%20Review.pdf](http://www.houstonisd.org/2301/images/Goal%20B%20-%20GT%20Vanguard%20Review.pdf)
- Houston Independent School District. (2005a). *Elementary School Guidelines: Advanced Academics, XIX*. Houston, Texas: Printing Services.
- Houston Independent School District. (2005b). *Secondary School Guidelines: Advanced Academics, XIII*. Houston, Texas: Printing Services.
- Houston Independent School District. (2006a). The HSPVA Philosophy. Retrieved August 30, 2006 from <http://www.hspva.org/policies/>
- Houston Independent School District. (2006b). *District and School Profiles*. Houston, TX: HISD.
- International Baccalaureate Organization. (2006). *Examination Review & Summary Data 2006: Profile of Diploma Programme Test Takers*. Retrieved on December 18, 2006 from http://www.ibo.org/ibna/recognition/documents/2509_IBO_datasummary_6.Final.pdf
- International Baccalaureate Organization. (2005). *Primary Years Programme at a Glance*. Retrieved on December 4, 2006 from <http://www.ibo.org/pyp/index.cfm>
- Texas Education Agency. (2000). *Texas State Plan for the Education of Gifted/Talented Students*. Austin: Texas.
- Texas Education Agency. (2001). *The Texas State Plan for the Education of Gifted/Talented Students: Questions and Answers*. Retrieved on August 30, 2001 from <http://www.tea.state.tx.us/gted/steplanq.html>
- Texas Education Agency. (2002). *Program Analysis System and Special Education Data Analysis System: Methodology for Analyzing Data Elements, 2002–2003 School Year*. Austin: Texas
- Texas Association for the Gifted and Talented (n.d.). *77th Legislature Position Paper*. Retrieved on November 16, 2002 from <http://www.txgifted.org/Overview/Services/GovRel/TAGTLegPositionPaper.pdf>

APPENDIX A



APPENDIX B

**Elementary G/T and Science Implementation
Principal Survey
2005–06**

Instructions: The goal of this survey is to learn about the implementation of the Gifted and Talented program as well as the science program on your elementary campus. Your input is important and will play a key role in the districtwide evaluation of both programs. Although principals have been designated to complete the survey, input from the G/T coordinator or G/T teaching staff as well as all science personnel would be greatly appreciated. All responses will be reported in aggregate form. Please complete the survey by **June 9, 2006**.

Thank you very much for your cooperation!

1. Campus Name: _____
2. Campus ID Number: _____

SECTION I: G/T Implementation

3. Which of the following G/T program designs do you implement on your campus. Check all that apply.

- Neighborhood G/T K-5
- Vanguard

Using the descriptions provided, which of the following models best illustrates how the Gifted and Talented program is being implemented on your campus for each grade level? Check all grade levels that apply.

4. G/T Homogeneous Classrooms: The G/T certified teacher has only district-qualified G/T students in the classroom and has the whole day to differentiate the curriculum in the four core areas (reading/language arts, mathematics, science, and social studies).

- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5

5. G/T Clusters in Regular Classrooms: The G/T certified teacher has district-qualified students grouped (a minimum of 3 G/T students) with regular students. On a daily basis, G/T teachers differentiate the curriculum in the four core areas (reading/language arts, mathematics, science, and social studies).

- Kindergarten
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5

APPENDIX B (CONTINUED)

6. G/T Pull Out/Simple Exchange: On a daily basis, teachers remove district-qualified students from the regular classroom or exchange clusters of district-qualified students. The G/T students are served by G/T qualified teachers, who differentiate the curriculum in the four core areas (reading/language arts, mathematics, science, and social studies).
- Kindergarten
 - Grade 1
 - Grade 2
 - Grade 3
 - Grade 4
 - Grade 5
7. OTHER IMPLEMENTATION MODEL (Please describe your model in the next question.)
- Kindergarten
 - Grade 1
 - Grade 2
 - Grade 3
 - Grade 4
 - Grade 5
8. If you answered "other" in the preceding question, please describe your G/T program model.
9. Which of the following information does your campus have on file documenting your level of Family-Community Involvement? Select all that apply.
- Campus brochure giving parents information about the Neighborhood G/T program and/or Vanguard program and application availability starting dates and procedures for applying
 - Campus letter giving parents information about the Neighborhood G/T program and/or Vanguard program and application availability starting dates and procedures for applying
 - All PTA Agendas documenting Gifted and Talented Information Given/Discussed
 - All Faculty Meeting Agendas documenting Gifted and Talented Program Information Discussed
 - Other (specify)
10. If you answered "other" in the preceding question, please describe other information on file involving Family-Community Involvement for the G/T Program.
11. What obstacles have you faced in implementing either the Neighborhood G/T program or Vanguard program on your campus? Please specify which program you are addressing.
12. What one thing would you like to change about either the Neighborhood G/T program or Vanguard program on your campus? (Please specify which program you are addressing.)
13. What additional assistance from the central or regional offices would help improve the quality of your G/T program?

APPENDIX C

Campuses Responding to the Elementary G/T and Science Implementation Survey

<u>Campus #</u>	<u>Campus</u>	<u>Campus #</u>	<u>Campus</u>
102	Alcott Elementary	187	Kelso Elementary
104	Almeda Elementary	284	Las Americas Early Childhood
106	Atherton Elementary School	195	Lockhart Elementary School
295	Benavidez	197	Looscan Elementary School
111	Bonham Elementary	199	Lovett Elementary
112	Bonner Elementary	162	Lucile Gregg Elementary
116	Briargrove Elementary	154	M.E. Foster Elementary
143	Briarmeadow Elementary	201	MacGregor Elementary
117	Briscoe Elementary	203	Mading Elementary
119	Brookline Elementary	251	Mark Twain Elementary
120	Browning Elementary	160	Maud W. Gordon Elementary
122	Burbank Elementary	204	Memorial Elementary
103	Charlotte B. Allen Elementary School	207	Montgomery
289	Clemente Martinez Elementary	213	Osborne ES
132	Coop Elementary	215	Parker Elementary
290	Crespo Elementary	217	Peck Elementary
136	Cunningham Elementary	265	Petersen Elementary School
297	Davila Elementary	180	R. L. Isaacs Elementary
137	De Chaumes	298	Raul C. Martinez
138	De Zavala Elementary	224	Red Elementary School
139	Dodson Elementary	226	Rhoads Elementary
144	Durkee Elementary	228	River Oaks Elementary
266	E.O. Smith Education Center	156	Robert Frost Elementary
147	Eliot Elementary	229	Roberts Elementary
271	Foerster Elementary	372	Rodriguez Elementary
153	Fondren Elementary	231	Roosevelt Elementary School
155	Franklin Elementary	167	RP Harris Elementary
354	Gabriela Mistral CEC	234	Rusk Elementary
291	Gallegos Elementary School	238	Scott Elementary
131	Halpin Early Childhood Center	276	Shadowbriar
169	Harvard Elementary	239	Shearn Elementary
173	Herod Elementary	241	Sinclair Elementary
286	Herrera Elementary	246	Stevenson
174	Highland Heights Elementary	163	Sugar Grove
176	Hohl Elementary	374	Tinsley Elementary
184	J. Will Jones Elementary	249	Travis Elementary
202	J.C. McDade Elementary	277	TSU/HISD Laboratory
264	J.C. Mitchell Elementary	252	Wainwright Elementary
171	J.P Henderson Elementary	253	Walnut Bend Elementary
166	J.R. Harris Elementary	254	Wesley Elementary
212	J.W. Oates	256	Wharton Elementary
113	James Bowie Elementary	257	Whidby Elementary
182	Jefferson Elementary	259	Wilson Elementary
186	JW Robinson , JR EI		

APPENDIX D

Stratified Random Sample of Vanguard and Neighborhood G/T Stanford 10 NPR Scores by Grade Level and Subtest, 2005–2006

Grade	# Taking		Reading NPR Scores		Math NPR Scores		Lang NPR Scores		Environmt./ Science NPR Scores		SocSci NPR Scores	
	V	N	V	N	V	N	V	N	V	N	V	N
1	354	353	89	87	91	87	91	89	79	71	†	†
2	382	382	85	84	87	88	88	89	78	75	†	†
3	369	368	88	87	90	90	86	88	88	86	88	84
4	422	421	90	86	92	90	93	91	88	84	85	79
5	393	393	90	83	93	90	91	86	90	84	88	79
6	603	584	91	88	93	91	88	83	91	87	86	81
7	569	566	87	84	94	91	90	88	90	84	85	82
8	587	585	86	82	92	90	87	84	89	83	90	86
9	112	112	88	84	89	88	87	84	89	80	87	76
10	82	82	90	86	94	90	86	80	91	83	90	82
11	79	78	93	89	94	88	91	87	91	83	91	84

Note: V=Vanguard and N=Neighborhood G/T Program

† Test not administered

APPENDIX E

Summary of Mann-Whitney U Analysis By Grade Level and Subtest

<u>Grade</u>	<u>Program</u>	<u>N</u>	<u>Mean Rank</u>	<u>Sum of Ranks</u>	<u>z</u>	<u>p</u>
Grade 1						
Reading	Vanguard	351	360.26	126452.49		
	Neighborhood G/T	352	343.76	121003.50		
	Total	703			-1.079	.281
Math	Vanguard	352	377.49	132877.00		
	Neighborhood G/T	353	328.58	115988.00		
	Total	705			-3.194	.001
Language	Vanguard	351	364.60	12974.00		
	Neighborhood G/T	353	340.47	120186.00		
	Total	704			-1.581	.114
Environment	Vanguard	349	379.55	132464.00		
	Neighborhood G/T	351	321.61	112886.01		
	Total	700			-3.805	.000
Grade 2						
Reading	Vanguard	382	385.76	147361.50		
	Neighborhood G/T	382	379.24	144868.50		
	Total	764			-0.409	.682
Math	Vanguard	382	381.05	145563.00		
	Neighborhood G/T	380	381.95	145140.00		
	Total	762			-.056	.955
Language	Vanguard	382	372.91	142450.00		
	Neighborhood G/T	381	391.12	149016.00		
	Total	763			-1.149	.251
Environment	Vanguard	382	402.33	153689.00		
	Neighborhood G/T	380	360.56	137014.00		
	Total	762			-2.629	.009

APPENDIX E (CONTINUED)

Summary of Mann-Whitney U Analysis By Grade Level and Subtest

<u>Grade</u>	<u>Program</u>	<u>N</u>	<u>Mean Rank</u>	<u>Sum of Ranks</u>	<u>z</u>	<u>p</u>
Grade 3						
Reading	Vanguard	366	350.89	128424.51		
	Neighborhood G/T	313	327.27	102435.50		
	Total	679			-1.566	.117
Math	Vanguard	364	337.16	122727.50		
	Neighborhood G/T	312	340.06	106098.50		
	Total	676			-.193	.847
Language	Vanguard	366	327.63	119912.50		
	Neighborhood G/T	313	354.46	110947.50		
	Total	679			-1.783	.075
Science	Vanguard	364	348.90	126998.00		
	Neighborhood G/T	312	326.37	101828.00		
	Total	676			-1.501	.133
Social Science	Vanguard	365	359.23	131120.50		
	Neighborhood G/T	312	315.33	98382.50		
	Total	677			-2.920	.004
Grade 4						
Reading	Vanguard	421	458.99	193234.00		
	Neighborhood G/T	421	384.01	161669.00		
	Total	842			-4.479	.000
Math	Vanguard	421	451.45	190061.00		
	Neighborhood G/T	421	391.55	164842.00		
	Total	842			-3.580	.000
Language	Vanguard	421	443.15	186564.50		
	Neighborhood G/T	421	399.85	168338.50		
	Total	842			-2.598	.009
Science	Vanguard	419	454.13	190281.50		
	Neighborhood G/T	419	384.87	161259.50		
	Total	838			-4.156	.000
Social Science	Vanguard	419	461.50	193367.50		
	Neighborhood G/T	418	376.40	157335.50		
	Total	837			-5.107	.000
Grade 5						
Reading	Vanguard	392	437.14	171359.50		
	Neighborhood G/T	392	347.86	136360.50		
	Total	784			-5.526	.000
Math	Vanguard	392	424.53	166415.00		
	Neighborhood G/T	393	361.55	142090.00		
	Total	785			-3.901	.000
Language	Vanguard	392	429.86	168506.00		
	Neighborhood G/T	393	356.23	139999.00		
	Total	785			-4.565	.000
Science	Vanguard	393	439.16	172589.00		
	Neighborhood G/T	390	344.48	134347.00		
	Total	783			-5.871	.000
Social Science	Vanguard	393	452.64	177887.00		
	Neighborhood G/T	390	330.89	129049.00		
	Total	783			-7.548	.000

APPENDIX E (CONTINUED)

Summary of Mann-Whitney U Analysis By Grade Level and Subtest

<u>Grade</u>	<u>Program</u>	<u>N</u>	<u>Mean Rank</u>	<u>Sum of Ranks</u>	<u>z</u>	<u>p</u>
Grade 6 Reading	Vanguard	584	622.64	363621.47	-3.873	.000
	Neighborhood G/T	584	546.36	319074.53		
	Total	1,168				
Math	Vanguard	584	631.26	368657.00	-4.750	.000
	Neighborhood G/T	584	537.74	314039.00		
	Total	1,168				
Language	Vanguard	584	632.22	369215.50	-4.968	.000
	Neighborhood G/T	582	534.61	311145.50		
	Total	1,166				
Science	Vanguard	583	628.28	366286.00	-4.556	.000
	Neighborhood G/T	583	538.72	314075.00		
	Total	1,166				
Social Science	Vanguard	583	638.57	372287.50	-5.596	.000
	Neighborhood G/T	583	528.43	308073.50		
	Total	1,166				
Grade 7 Reading	Vanguard	566	606.17	343091.50	-4.144	.000
	Neighborhood G/T	565	525.76	297054.50		
	Total	1,131				
Math	Vanguard	566	608.92	344650.00	-4.551	.000
	Neighborhood G/T	563	520.84	293235.00		
	Total	1,129				
Language	Vanguard	566	592.67	335449.47	-2.872	.004
	Neighborhood G/T	563	537.19	302435.50		
	Total	1,129				
Science	Vanguard	566	618.67	350167.00	-5.500	.000
	Neighborhood G/T	564	512.14	288848.00		
	Total	1,130				
Social Science	Vanguard	566	603.57	341621.50	-3.936	.000
	Neighborhood G/T	564	527.29	297393.50		
	Total	1,130				
Grade 8 Reading	Vanguard	585	633.04	370329.00	-4.931	.000
	Neighborhood G/T	583	535.79	312367.03		
	Total	1,168				
Math	Vanguard	585	626.27	366370.50	-4.248	.000
	Neighborhood G/T	583	542.58	316325.50		
	Total	1,168				
Language	Vanguard	585	618.08	361578.00	-3.475	.001
	Neighborhood G/T	582	549.74	319950.00		
	Total	1,167				
Science	Vanguard	585	642.92	376110.00	-6.058	.000
	Neighborhood G/T	581	523.67	304250.97		
	Total	1,166				
Social Science	Vanguard	585	638.54	373543.00	-5.727	.000
	Neighborhood G/T	579	525.88	304487.00		
	Total	1,164				

APPENDIX E (CONTINUED)

Summary of Mann-Whitney U Analysis By Grade Level and Subtest

<u>Grade</u>	<u>Program</u>	<u>N</u>	<u>Mean Rank</u>	<u>Sum of Ranks</u>	<u>z</u>	<u>p</u>
Grade 9 Reading	Vanguard	112	123.56	13838.50	-2.557	.011
	Neighborhood G/T	112	101.44	11361.50		
	Total	224				
Math	Vanguard	112	116.08	13001.50	-.829	.407
	Neighborhood G/T	112	108.92	12198.50		
	Total	224				
Language	Vanguard	112	119.25	13356.00	-1.565	.118
	Neighborhood G/T	112	105.75	11844.00		
	Total	224				
Science	Vanguard	112	132.01	14785.00	-4.663	.000
	Neighborhood G/T	112	91.81	10191.00		
	Total	224				
Social Science	Vanguard	112	136.77	15318.00	-5.768	.000
	Neighborhood G/T	111	87.01	9658.00		
	Total	223				
Grade 10 Reading	Vanguard	82	88.60	7265.00	-1.956	.051
	Neighborhood G/T	80	74.22	5938.00		
	Total	162				
Math	Vanguard	82	94.15	7720.00	-3.152	.002
	Neighborhood G/T	82	70.85	5810.00		
	Total	164				
Language	Vanguard	82	91.56	7508.00	-2.610	.009
	Neighborhood G/T	81	72.32	5858.00		
	Total	163				
Science	Vanguard	82	92.80	7609.50	-3.113	.002
	Neighborhood G/T	80	69.92	5593.50		
	Total	162				
Social Science	Vanguard	82	96.82	7939.50	-3.871	.000
	Neighborhood G/T	82	68.18	5590.50		
	Total	164				
Grade 11 Reading	Vanguard	78	85.59	6676.00	-1.966	.049
	Neighborhood G/T	78	71.41	5570.00		
	Total	156				
Math	Vanguard	78	87.76	6845.00	-2.570	.010
	Neighborhood G/T	78	69.24	5400.50		
	Total	156				
Language	Vanguard	78	84.90	622.00	-1.935	.053
	Neighborhood G/T	77	71.01	5468.00		
	Total	155				
Science	Vanguard	78	90.63	7069.50	-3.362	.001
	Neighborhood G/T	78	66.37	5176.50		
	Total	156				
Social Science	Vanguard	78	90.64	7070.00	-3.362	.001
	Neighborhood G/T	78	66.36	5176.00		
	Total	156				