Describing the Status of Programs for the Gifted: A Call for Action

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Abstract

Using three leveled surveys of school district personnel (elementary, middle, and high school), we collected data on the current status of practices and procedures in gifted education across the nation. Results from 1,566 respondents in separate school districts to questions relating to administration (staffing), identification of gifted students, curriculum and instruction, program delivery models, financing, program evaluation, teacher qualification requirements, and professional development document a national picture of current practice. In addition, we structured data collection procedures to assess the degree to which the NAGC Pre-K–Grade 12 Gifted Education Programming Standards are used to guide programming. The resulting picture of current practices was often a mirror of practices from 20 or more years ago, suggesting a need for a national dialogue focused on reshaping gifted education for the 21st century.

Keywords

gifted education, policy and practice, gifted education programming at local education agencies

The productive evolution of a field in education across the arenas of policy, research, and practice relies on a clear understanding of the current status of that field. Within gifted education, the status of the field is regularly described in part by the biennial State of the States in Gifted Education Reports based on a survey of state-level administrators (National Association for Gifted Children [NAGC] & Council of State Directors of Programs for the Gifted [CSDPG], 2011, 2013). However, these reports

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are state-level reports and do not provide direct and systematic national data on the practices of local education agencies (LEAs). To address concerns about the lack of systematic and specific data regarding local programs for gifted students that can be used for policy discussions or to guide future funding, the Institute of Education Sciences (IES) commissioned a study of local gifted programs with a focus on developing a national portrait of the status of programming at the elementary, middle, and high school levels.

Background

In one of the earliest research-based works describing the critical components of gifted programs, Renzulli and Ward (1969) identified "key features" of a quality program for gifted students. This set of critical components has remained a constant core for defining quality program development. We include a brief review of these consistent critical areas as the basis for the inclusion of questions relating to the key features in the survey. These general areas have persisted as aspects of programming—sometimes expanding and sometimes collapsing—throughout the evolution of standards for gifted education programming (e.g., Landrum, Callahan, & Shaklee, 2001; NAGC, 2010a; Purcell & Eckert, 2006).

Definition of Giftedness

Specifying a local definition remains a crucial aspect of gifted programming as the definition provides guidance in determining who receives services, which services are offered, when services are offered, and why services are offered (Clarenbach & Eckert, 2013; S. M. Moon, 2006). According to surveys of state directors of gifted programs (NAGC, 2010b),¹ the majority of states modeled their local definitions on the federal definition of gifted provided in the No Child Left Behind Act of 2002 (NCLB, 2002):

The term "gifted and talented," when used with respect to students, children, or youth, means students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities. (Section 9101[22])

At the time of the survey reported here, no definition of giftedness was provided in the state statutes or regulations in four states out of the 44 states that responded to the NAGC survey. In 10 of the states where guidelines were provided, LEAs were not required to adopt the state definition (NAGC & CSDPG, 2013).

Identification

The identification of gifted students persists as one of the most studied and controversial topics in the field. The lack of a consensus in the field on what it means to be gifted



(Borland, 2004; Clarenbach & Eckert, 2013; S. M. Moon, 2006; Renzulli, 2005; Sternberg & Davidson, 2005; Worrell, 2014) results in myriad recommendations for instruments and processes to identify gifted behaviors and students (Callahan, Renzulli, Delcourt, & Hertberg-Davis, 2013; Lohman & Foley Nicpon, 2012). At the time of the survey, the identification criteria and methods were determined entirely at the local level in 25 out of 38 states that reported specific requirements for identification of gifted students. In addition, LEAs in five states were not required to use any specific identification criteria or methods (NAGC & CSDPG, 2013).

Instruments used to identify gifted students. Many studies (e.g., Brown et al., 2005; Sternberg, Jarvin, & Grigorenko, 2011) have documented that norm-referenced, standardized tests of intelligence and achievement dominate the identification of gifted students in most states and school districts even though scholars (e.g., Callahan, Renzulli, et al., 2013) have delineated the limitations of using only standardized cognitive aptitude and achievement tests in the identification process. Other strategies frequently used in screening and identification processes include teacher nomination and teacher ratings. Schools often use locally developed scales, but they may use published scales such as the HOPE Teacher Rating Scale (Peters & Gentry, 2013) or the Scales for Rating the Behavioral Characteristics of Superior Students (Renzulli et al., 2013). Although some scholars (e.g., Robinson, Shore, & Enersen, 2007; Worrell & Schaefer, 2004) have concluded from their data that teachers can be reliable identifiers of giftedness, others have urged caution (e.g., Ford, Grantham, & Whiting, 2008; Siegle & Powell, 2004). Peer nomination (e.g., Cunningham, Callahan, Plucker, Roberson, & Rapkin, 1998), parent nomination (e.g., Lee & Olszewski-Kubilius, 2006), grades, and portfolios (e.g., Slade, 2012; VanTassel-Baska, Johnson, & Avery, 2002) also have been examined and advocated for as part of the screening and identification processes.

Other identification tools and approaches have been introduced as more inclusive and more holistic—particularly in response to broadened conceptions of giftedness. Scholars have recommended using tools such as creativity assessments (e.g., Grigorenko, Jarvin, Tan, & Sternberg, 2008; Renzulli & Reis, 2012; Torrance, 1966), nonverbal assessments of aptitude (e.g., DeThorne & Schaefer, 2004; McCallum, 2003; Naglieri & Goldstein, 2009; Raven, Raven, & Court, 2000; Sattler, 2008), and the measurement of noncognitive variables such as task commitment (Renzulli, 1977) in the identification process.

The process of identification. Not only is the choice of instruments a critical variable in the identification process, the ways in which data are considered and the ways in which decisions are made are also crucial variables in determining who receives gifted services. Although the use of one assessment data point has long been considered inappropriate and the use of multiple assessments has been advocated for a number of years, there are many ways in which the data from those assessments may be considered/combined. In some cases, one measure is used as a filter (sometimes referred to as a gatekeeper), which sets a minimum standard that is applied before students are



further assessed for placement. This assessment may be a teacher nomination, or it may consist of consideration of data from a universal screening in which a standardized assessment is administered to all students at a given grade level. Universal screening may be based on scores from a cognitive assessment such as the Cognitive Abilities Test (CogAT®; Lohman & Hagen, 2001), or a general achievement test may be administered by institutions that conduct talent search programs (e.g., Talent Search program at Johns Hopkins University, TIP program at Duke University).

The next step in the process may be the administration of other assessments or it may be the collection of extant data on students who meet a certain threshold scores on the universal screening or on teacher nomination forms. In public school programs, this may include teacher ratings (if a universal screening was carried out), collection of grades, collection of portfolios, collection of achievement data from state testing programs, and so forth. In the case of the programs run by Johns Hopkins University or Duke University, there may be another testing using instruments such as the SAT or ACT for final decision making. Other approaches may combine scores from two or more instruments (sometimes including scores from the nomination or screening process). Baldwin (1984) advocated for the entry of the data onto a weighted matrix; other systems are often called multiple-criteria approaches, an approach that has been widely criticized (T. R. Moon, 2013b). In some cases, the student must earn a minimum score on one of two or more criteria; in some cases, the student must meet minimum criteria on multiple measures; and in some cases, there are minimum criteria set for all measures, and a student must meet all those to qualify for services. In some scenarios, a committee reviews all students nominated with no minimum criteria for selection for gifted programs, but with a guide to identify students who would benefit from curriculum and services beyond those provided in the general education program (Callahan, Moon, & Oh, 2013).

Identification of underrepresented populations. Addressing the persistent underrepresentation of children from cultural, linguistic, and lower socioeconomic backgrounds is a focus of expanded identification recommendations and efforts (e.g., Erwin & Worrell, 2012; Ford, 2012; Plucker, Burroughs, & Song, 2010; VanTassel-Baska & Stambaugh, 2007). Both the 1998 Pre-K–Grade 12 Gifted Program Standards (Landrum & Shaklee, 1998) and the more recent Pre-K–Grade 12 Gifted Education Programming Standards (hereafter referred to as the Standards; NAGC, 2010a) recommend the use of instruments and procedures that ensure equitable assessment of diverse abilities across diverse populations. Other recommendations that complement the NAGC Standards include involvement of well-informed professionals in the decision-making process, ongoing student assessment, inclusion of both objective and subjective measures, and the use of student profiles reflective of student talent (Callahan, Renzulli et al., 2013).

Program Goals. Services for gifted and talented students should be based on overarching programmatic goals (Hertberg-Davis & Callahan, 2013; T. R. Moon, 2013a; NAGC, 2010a). Program goals are long-term, broad, general statements of expected outcomes of gifted services. One would expect that high-quality learning goals and



objectives in gifted education, as in all educational programs, would identify measurable outcomes expected for students as a result of participating in the gifted program and that the goals would provide a framework for evaluating the degree to which students are achieving the learning objectives. Without clear specification and documentation of expected learner outcomes, it is unlikely evidence can be gathered that will contribute to improving student learning and sustaining program excellence over time (Callahan, 2013; NAGC, 2010a).

Service Delivery

With regard to settings and groupings (service delivery models), the gifted education literature includes attention to a variety of service delivery models ranging from the heterogeneous classrooms (including cluster grouping) to pull-out programs, special schools, and/or special classes for gifted students, and acceleration. The Standards include the directive that "educators provide a variety of research-based grouping practices for students with gifts and talents that allow them to interact with individuals of various gifts, talents, abilities, and strengths" (NAGC, 2010a, p. 1). Specific models developed for gifted students include descriptions of a range of settings and groupings such as the Schoolwide Enrichment Model (Renzulli & Reis, 1997), the Autonomous Learner Model (Betts, 1985), and the Cluster Grouping Model (Gentry, 2014). Schools may use one of these models, variations on a model, integrated models, or no model at all.

Curriculum for the Gifted

A strong connection between quality curriculum and higher student achievement has been documented extensively in the research literature (e.g., Lipsey & Wilson, 1993; Marzano, 2000, 2003; Schmidt, McKnight, & Raizen, 1996). A quality curriculum with increasing levels of challenge has been found to increase achievement for gifted students (Callahan, Moon, Oh, Azano, & Hailey, 2015; Kaplan, 1974, 1986; VanTassel-Baska & Little, 2003) and to be promising for students from populations that are underrepresented in gifted programs (National Research Council [NRC], 2002). Hence, one assumption that might be made, and was made for this study, was that the standards for quality curriculum were more likely to be met if educators used a curricular model grounded in theory and research to guide the development of instruction for gifted learners.

Assessment of Student Learning Progress and Outcome

The Standards (NAGC, 2010a) provide guidelines for use of multiple, appropriate, and ongoing assessments to measure gifted students' learning progress and outcomes. Although the guidelines exist and the State of the States report (NAGC & CSDPG, 2013) includes state-level reporting and monitoring status as an accountability measure, the degree to which gifted students' learning progress and outcomes are assessed in LEAs has not been identified (Dai, Swanson, & Cheng, 2011; VanTassel-Baska, 2008).



Professional Development

The importance of teacher quality in influencing student achievement has long been recognized (e.g., Darling-Hammond & Youngs, 2002; Gubbins, 2008; Wayne & Youngs, 2003). The recognition of the importance of sustained, high-quality professional development in gifted education is illustrated by the devotion of an entire set of guidelines to that program component in the Standards (NAGC, 2010a). Yet, surveys document wide variability in state-level requirements for teaching gifted students and in professional development requirements across states (e.g., NAGC & CSDPG, 2013). Seventeen states require those teachers with responsibility for teaching gifted students to hold a certificate or endorsement in gifted education; only five states require teachers teaching gifted students to receive annual professional development relating specifically to gifted education (NAGC & CSDPG, 2013).

Program Evaluation

Early in the expansion of the gifted education movement in the United States, the Marland (1972) report called attention to the critical need for gifted program evaluation. Program evaluation is a process critical to the success of educational programs in general (Joint Committee on Standards for Educational Evaluation, 1994; Reineke, 1991) and gifted programs in particular (Tomlinson, Bland, & Moon, 1993; Tomlinson, Bland, Moon, & Callahan, 1994), as it provides evidence on the degree to which a program is carrying out planned activities effectively and the extent to which the program is achieving its stated outcomes.

Underrepresented Populations

Over the past several decades, concerns about the lack of diversity among students served in programs designated for gifted students have increased (e.g., Dai, 2013; Donovan & Cross, 2002; Lohman, 2005). Recently, the literature in gifted education (e.g., Ford, 2012; Olszewski-Kubilius & Clarenbach, 2012; VanTassel-Baska & Stambaugh, 2007; Worrell, 2014) has focused on the underrepresentation of racial and ethnic groups and students of poverty. Worrell (2014) noted that one of the corollaries to the "achievement gap between African American students and many of their Asian American and European American counterparts . . . is the under-representation of African-Americans in educational programs for gifted and talented youth" (p. 397).

State of Knowledge Base on Policy and Practice

The State of the States in Gifted Education (NAGC & CSDPG, 2011, 2013) reports outline how each state regulates and supports services and programs for the gifted. These reports provide state-level data on adopted definitions; number of students identified as gifted in the state; state mandates; state funding; teacher, counselor, and administrator qualifications and training requirements; monitoring procedures; and

state-level policies on practices such as acceleration, early entrance, dual enrollment, and state-level staffing. These reports are limited to providing data on state-level policy and funding only. Although the field of gifted education benefits greatly from this picture of state-level policy, the ways in which state-level policy translates into LEA policy and practices across the domains noted above is unknown. A few specific reports include a description of gifted programming in particular states (e.g., Belcastro, 1998; Dillon & Patty, 1997; Hess, 1990); a survey in the 1990s did include assessment of professional development at the district level (Westberg et al., 1998) and Colangelo, Assouline, and New (1999) gathered information about services provided by rural states.

Study Purpose

To understand how the practitioners in the field have translated state policy and recommended practice into gifted programming at the level of implementation and to paint a picture of how those policies are interpreted, data are needed from the LEA level. Hence, we created three leveled surveys (elementary, middle, and high school) to collect descriptive data about those key features that have formed the basis for standards and/or are included in the State of the States (NAGC & CSDPG, 2011, 2013) reports. By creating a national portrait of the policies and practices in gifted education as enacted at the district level, we can identify those areas in which current theory and research is reflected in practice and those areas in need of greater focus in future research and policy development and/or dissemination.

Method

Survey Development

For this study, we drafted three online surveys (for data collection at the elementary, middle, and high school levels) based on the Renzulli and Ward (1969) key features of a quality program for gifted students as described above. Data from a small pilot sample of district coordinators whose districts represented a range of gifted funding levels, student population sizes, and definitions of giftedness were used to revise the surveys to increase clarity and ease of responding.

We developed a definition a gifted program as "a program with a specific process for the identification of a specific group of students who are then provided educational options in ways that differ from regular classroom curricula and/or instructional practices." Each survey had an opening question that prompted respondents to indicate whether or not such a program existed in their LEA. If the answer was no, the individual was exited from the survey.

One set of questions included items designed to solicit demographic information (e.g., size of school district, student demographics by ethnicity and free/reduced lunch status, percentage of numbers of identified gifted students, percent of identified students by ethnicity, and status as free/reduced lunch program). A second set of selected

response items on the survey assessed respondent perception of existence of state rules and guidelines relative to the definition, identification processes, grouping arrangements, and the like; whether the Standards (NAGC, 2010a) were used to guide district decision making; type of grouping arrangements ("What are the ways in which most services for gifted students are delivered to elementary gifted and talented students? For this question, please choose the option through which the majority of identified elementary school students in your school district are served."); program model(s) used to guide program development (Autonomous Learner [Betts, 1985]; Enrichment Triad Model [Renzulli, 1977]; Schoolwide Enrichment [Renzulli & Reis, 1985]; Depth and Complexity [Kaplan, 2005], Model of Differentiated Curriculum [Tomlinson, 2001]; Multiple Menu Model [Renzulli, Leppien, & Hays, 2000]; Parallel Curriculum Model [Tomlinson et al., 2002]; Purdue Three-Stage Model [Feldhusen, 1993]; Study of Mathematically Precocious Youth [SMPY; Stanley, Keating, & Fox, 1974])²; the proportion of gifted students served by the primary model identified; the amount of time each week students received specific gifted services; content areas and skill areas that were the focus in the program; the definition of giftedness used by the program; the use of standardized and locally developed instruments in the identification process; professional development provided for educators responsible for gifted students; criteria for selection of gifted teachers; and so forth.

Open-ended items were used to collect information about the goals of the district program (e.g., "What are the three overarching goals of your elementary gifted program?"); the goals of the model selected for delivery of services, instruments, and procedures used to evaluate gifted student outcomes; results of evaluation processes and procedures; types and examples of curriculum materials used; identification processes and procedures; and strategies used to identify historically underserved students. Items were modified for each level as necessary (e.g., adding Advanced Placement [AP] and International Baccalaureate [IB] for high school, adjusting lists of standardized instruments).

Sample

The desired sample size for the surveys was determined by first setting a 95% confidence level with a 3% margin of error. Based on the number of U.S. public school districts at the time of the study, this criterion resulted in a suggested sample size of 1,062 for each school level (elementary school, middle school, and high school). To account for potential nonresponses, the research team oversampled, targeting 2,000 districts at each school level. Market data retrieval provided a stratified random sample of school districts from its national repository of all school districts in the United States classified by urbanicity, geographic region, and ethnicity among other variables. Each sample was made up of 35% urban, 35% suburban, and 25% rural school districts. Surveys were primarily distributed online to district-level coordinators/directors whose email addresses were available from state gifted education directors or the school districts' websites. When district personnel email addresses were not available, hard copies of the surveys were distributed through the U.S. postal system. The



elementary gifted program survey responses were collected between November 2010 and April 2011, the middle school survey data were collected between November 2011 and February 2012, and the high school survey data were gathered March 2012 through June 2012. The research team eliminated overlapping districts (i.e., districts selected at each level) to avoid sampling the same school districts repeatedly. In addition, school districts that did not serve the targeted grade levels were removed.³ The final sample comprised 2,000 elementary school districts, 1,753 middle school districts, and 1,160 high school districts, a proportional representation of districts across the country.

The average response rate was 30.8% across the three surveys (38.3% for elementary, 27.8% for middle school, 27% for high school), with a total of 1,566 school districts across the nation providing data in response to the three separate surveys (765, 486, and 315 for elementary, middle, and high school surveys, respectively). The research team received approximately the same proportion of responses across urban, suburban, and rural school districts. Schonlau, Fricker, and Elliott (2002) reported that response rates for web-based surveys typically range from 7% to 44% and that responses to open-ended questions in web surveys provided more complete information when compared with paper surveys. The expansive nature of the content of the surveys resulted in what would be considered long and demanding, which may have decreased response rates.

Data Analysis

Descriptive statistics were computed on each closed-ended item. The open-ended items on the survey were read by two members of the research team to "develop tentative ideas about categories and relationships" (Maxwell, 2005, p. 96). All initial categories developed from the first reader were reviewed by the second team member for verification or revision of the categories. Once categories were established, all openended items were coded using the agreed-upon categories. If items could not be clearly categorized by a reader, they were examined by both readers to determine whether the item could be categorized or if a new category was necessary.

Findings

Definition of Giftedness

Prior reports (e.g., NAGC & CSDPG, 2011, 2013) document a wide range of definitions of giftedness at the state level, with the greatest number of states including intellectually gifted, academically gifted, creatively gifted, specific academic areas, and/or performing/visual arts as areas of giftedness recognized by the state. The vast majority of survey respondents (81.0% and 74.4% of the districts with middle school and high school gifted programs, respectively⁴) indicated that their districts followed the definition of giftedness adopted in their states. At the elementary level, analysis of the openended question about the definition of giftedness revealed that the most commonly

recognized area of giftedness was intellectual giftedness, reported by 209 of the 210 (99.5%) school district coordinators. Although intellectual giftedness was the predominant area of giftedness, other areas also were commonly included in local definitions used by elementary districts such as creative/divergent thinking (55.9%), visual and performing arts (44.9%), specific academic aptitude (41.6%), leadership (35.9%), and academically gifted with high performance across domains (28.8%).

Identification of Gifted Students

Percentage of identified gifted students. The average reported percentage of elementary students identified as gifted was 7.8% (SD = 6.5%; range = 0%–50%). Because of difficulties reported by respondents in answering the open-ended question on percentage of students identified as gifted, we altered the middle and high school surveys to allow respondents to report by decile category. The majority of district coordinators (62.0% and 57.9%, middle school and high school levels, respectively) reported that between 1% and 10% of the students in their districts were identified as gifted. When respondents were asked if a process for identification of gifted students existed at the middle and high school level, 81.4% of the respondents at the middle school level and 58.9% of the respondents at the high school level reported that there was a specific process in place for identifying gifted students. The remaining respondents indicated that their district did not identify gifted students at the middle or high school level because student eligibility depended on prior identification.

Identification practices at the elementary school level. Responses to the survey questions and supplemental documents provided by some coordinators indicated that parent or teacher nomination or referral was still a common entry point in the identification process at the elementary school level. More than 50% of the district coordinators who responded to the questions indicated that all students at a particular grade level were assessed using a standardized assessment to identify students for further screening. Although the specified grade level for screening varied widely across school districts, more school districts administered schoolwide testing in the lower grades (K–2) than the upper grades (3–5). Some districts used a combination of both a nomination process (teacher, parent, peer, and/or self) and other general screening measures. Other frequently mentioned points of entry into the screening process were examination of state-level testing results and student grades.

After a pool of nominees was established using one or more of the strategies indicated above, students were referred to the screening stage. At this point, several alternate branches emerged. Sixty percent of the district coordinators reported using a predetermined score or percentile on an intelligence/aptitude test or achievement test as the qualifying criteria for receiving gifted education services automatically (e.g., intelligence test score above 130). Additional processes and procedures such as teacher or parent input or students' portfolios were commonly implemented to collect additional information on students with lower scores on the intelligence/aptitude/achievement tests.

Other reported identification processes reflected outdated and no-longer-recommended practices. For example, approximately 30% of the respondents reported using a combination of scores calculated on a matrix with points allocated to scores in certain ranges on tests, on teacher ratings, and so forth. A second approach, reported by approximately a quarter of district coordinators, involved the use of a multiple hurdle strategy. That is, students had to achieve a certain level on an assessment (i.e., above an established cutoff score) before being assessed on subsequent tests.

The creation of identification committees was cited as a stage in the identification process, but the committee decision work varied from clerical affirmation (that matrix totals were "high enough"), to rank ordering students to determine a cutoff based on numbers of students who could be served in the program, to very careful consideration of student educational needs by trained educators.

To more clearly demonstrate the range of identification practices reported by elementary district coordinators, four examples of identification practices along with a discussion of how these exemplify as well as stray from current recommended practices in identification of gifted students are provided below. No district processes were based on complete exemplary practices, but many had elements of recommended identification practices embedded in them.

Example 1: The gifted identification and placement committee, including the gifted assessment specialist who works with the student, reviews each profile. The gifted identification and placement committee seeks evidence that the student demonstrates potential for exceptional performance and has academic needs that cannot be met through the general education curricula. New committee members are trained on identification procedures using a review of evidence and sample cases. No single instrument, score, or criterion is used to exclude or include a student for eligibility. Decisions are based on a consensus of the committee using a summary of data.

Example 1 presents several commendable practices such as utilizing multiple sources of data in decision making and engaging committee members who are trained on the specific identification process.

Example 2: We focus on identification in the following areas: cognitive, reading, math, social studies, science, and creative thinking. All students in Grade 2 take the full battery of both the Cognitive Abilities Test (CogAT-6) and the Iowa Tests of Basic Skills (ITBS) Form A. Those scoring at the levels determined for gifted identification are documented as such, while those scoring within the screening range(s) are administered other assessments from the state-approved list for individual testing or testing conducted in a small-group setting. Following the second round of testing, students scoring within the identification range are documented as being identified as gifted.

This example displays some commendable practices in that all students are screened for identification using multiple assessment measures. However, alternative strategies



(other than testing) for nomination of students to the pool of students were not utilized and a single score cutoff was the determining factor for identification.

Example 3: Matrix of points assigned to grades, Otis-Lennon School Ability Test (OLSAT) scores, achievement test scores, and teacher and parent ratings, as well as Wechsler Intelligence Scale for Children (WISC-IV) performance.

In the third example, the district appears to be using multiple pieces of information to make a decision. However, those multiple pieces of information are combined and ultimately reduced to a single total score. Even though the district collects multiple pieces of information, the use of a matrix with a cutoff score likely places an overemphasis on test scores, combines scores in arbitrary ways violating sound assessment practice, and does not reflect a matching of student characteristics to program services.

Example 4: The 96th percentile on two approved measures qualifies a student for services.

In the final example, the district uses multiple data points, but each student has to achieve a certain cutoff score on both measures to be identified for gifted services. Although the use of more than one identification tool is commendable, the use of arbitrary cutoff scores is problematic. Furthermore, from this example, it is not discernible what the two measures are assessing.

Identification practices at the middle and high school levels. Reported practices across both middle and high school levels revealed that student nomination from teachers, parents, school administrators, counselors, student peers, or students themselves most often initiated the identification process. At the middle school level, fewer than 10 respondents mentioned universal or general testing. The CogAT (Lohman & Hagen, 2001) and the ITBS (Hoover et al., 2003) were the most commonly used instruments in the general screening process. At the high school level, fewer than five respondents mentioned any use of testing, and they did not indicate whether it was a general testing or testing was carried out after nominations. The CogAT and the WISC-IV (Wechsler, 2003) were the top two instruments mentioned; however, only 74 districts responded to the instrument question.

Demographic representation: Minority students. When demographic data were disaggregated by looking at the alignment between the percentage of subgroups of students in each district and the percentage of the various racial and socioeconomic subgroups in the district's gifted programs, the representation of minority students and economically disadvantaged students in gifted programs varied widely across school districts. For ease of reporting (necessary to increase response rates), we asked survey respondents to indicate the percentages of subgroups in their general school population and in their gifted programs by deciles (i.e., < 1%, 1%–10%, 11%–20%). To compare the reported proportions of Black, Hispanic, and children who received free/reduced lunch in the general population with the proportion of those students in gifted programs, we



created three categories. The exact category included districts whose coordinators reported that the proportion of a subgroup was in the same decile as the proportion of those students in the gifted program. Placement in the exact category did not mean percentage was exactly the same. The possible range of difference in percentage in the exact category was 10%. The adjacent proportion category included districts who reported that their proportions were in adjacent decile categories. For example, if a district coordinator reported that the general population was comprised of 41% to 50% Black students and the population of its gifted program services was comprised of 31% to 40% Black students, that district was placed in the adjacent category.

Fifty percent of responding elementary coordinators indicated that there was exact alignment reported for Black student representation and the gifted student population; 34% of responding coordinators at the middle school level and 50% at the high school level indicated exact alignment. Hispanic student representation was similarly disparate. Fifty-four percent of coordinators provided data that placed their elementary schools in the exact alignment category; 37% of middle schools and 50% of high school districts fell in the exact alignment category as well. More than 80% of the district coordinators across all school levels reported exact or adjacent alignment (within one decile category) between Black and Hispanic student representation in their districts and in their districts' gifted programs.

Demographic representation: Students of poverty. Notably, underrepresentation of students of poverty in gifted programs was greater than that of Black or Hispanic students. Only 17.8%, 21.4%, and 15.1% of the districts at the elementary, middle, and high school levels, respectively, were in the exact alignment category. Table 1 provides a summary of alignment by race and socioeconomic status (SES).

Talent development among historically underrepresented student populations. Fifty-one percent of responding elementary coordinators, 57.1% of middle school coordinators, and 48.7% of high school coordinators reported that their districts implemented a plan to develop talent potential in underrepresented populations. Using culturally relevant curriculum and pedagogy through differentiated instruction and providing mentorships were the most common talent development strategies reported at the elementary school level. At the middle and high school levels, respondents most often noted additional support systems such as teacher mentoring, tutoring, or special support programs (e.g., Advancement via Individual Determination [AVID] and bridge programs) as strategies to develop talent potential in gifted students from underrepresented population.

Gifted Programming

Use of the Pre-K–Grade 12 Gifted Programming Standards. The Standards (NAGC, 2010a) were developed to provide structure for policies and procedures to guide systemic programming for gifted learners. However, only 53.6% of respondents at the elementary level, 39.1% of respondents at the middle school level, and 27.5% of



Alignment category	Elementary gifted programs			school rograms	High school gifted programs	
Options	n	%	n	%	n	%
Exact alignment	77	17.8	70	21.4	23	15.1
Adjacent alignment	106	24.5	78	23.8	35	23.0
Divergent alignment	165	38.1	123	37.6	60	39.4
Distant alignment	85	19.6	56	17.1	34	22.4
Total number of districts responding	433		327		152	

Table I. Demographic Representation: Students of Poverty Alignment.

Note. n = number of districts reporting. % = percent of the districts reporting the category. Only districts that reported both the percentage of students of poverty in the district and in the gifted programs were included in this table.

respondents at the high school level reported using the Standards to guide programming. Among the programs that were based on at least one standard, the most common standard was related to curriculum planning and instruction. The Standards relating to learning environment were reported by the least number of respondents regardless of school levels (see Table 2).

Program goals. A large portion of district coordinators (92.3% at the elementary, 83.5% at the middle, and 73.6% at the high school level) reported offering educational opportunities for gifted students that differed from regular classroom curricular and instructional practices as an overarching program goal. However, in responding to the open-ended question about the goals of the gifted program, respondents more frequently reported process goals (e.g., providing teacher training, increasing identification of traditionally underrepresented group of students, and developing quality curriculum) than student learning outcome goals that could be used to guide gifted programming, with student learning outcome goals rarely reported by respondents at any of the school levels.

Framework for programming. About a third of the respondents (32.1% at the elementary, 40.2% at the middle, and 34.1% at the high school level) indicated that their district had not adopted any particular framework from among those provided in the gifted education literature to guide gifted programming in their districts. Of those who did report the adoption of a framework, Tomlinson's (2001) differentiation model, Renzulli's (1977) Enrichment Triad Model, and Kaplan's (2005) Depth and Complexity Model were most frequently cited as models used to guide gifted programs at the elementary and middle school levels. AP frameworks and curriculum guides were chosen by the majority of respondents at the high school level as the basis for gifted programming (see Table 3).

Program service delivery. At the elementary school level, part-time, pull-out classes offered for 1 to 4 hours per week was the dominant service delivery model, with 51.9%



Answer options	Elementary gifted programs		Middle school gifted programs		High school gifted programs	
	n	%	n	%	n	%
Currently not using the standards	161	46.4	167	60.9	95	72.5
Curriculum planning and instruction	156	45.0	91	33.2	30	22.9
Programming	134	38.6	70	25.5	25	19.1
Learning and development	133	38.3	68	24.8	23	17.6
Assessment	126	36.3	68	24.8	23	17.6
Professional development	124	35.7	64	23.4	21	16.0
Learning environments	117	33.7	62	22.6	20	15.3
Total number of districts responding	347		274		131	

Table 2. Areas to Which the NAGC Standards Were Applied.

Note. n = number of districts reporting. % = percent of the districts reporting the category. The question allowed multiple responses. NAGC = National Association for Gifted Children.

of respondents indicating that this was the service delivery model used in their districts. At the middle school level, special classes of homogeneously grouped gifted students within a regular school setting were identified as the most frequent service delivery option. AP (90.7%) was the overwhelmingly dominant program option for gifted students at the high school level. Responding district coordinators also indicated that 100% of the identified students were served by one primary service delivery model at the elementary level, and between 75% and 99% of the identified students were served by one primary model as reported by the administrators at the middle and high school levels (see Table 4). These results suggest identified gifted students are still considered and identified as a homogeneous group of students, with nearly all gifted students in a school district being served in the same way.

Curricular materials. No particular set of curricular materials for guiding instruction was selected by respondents. Two thirds of the district respondents at the elementary level and nearly as many at the middle school level indicated a variety of resources used to provide services to gifted students. These resources included teacher-developed materials, public resources (e.g., Library of Congress materials), predeveloped materials (e.g., LEGO robotics, Junior Great Books, Accelerated Math), and curricular materials developed by university research teams and/or academic competition materials (e.g., Destination Imagination, Mock Trial, National History Day, and Science Fair). The remaining district respondents (25.4% at the elementary and 36.2% at the middle school level) noted that no particular materials guided instruction. At the high school level, AP course resources were identified as the primary curricular materials for gifted students.



	Elementary gifted programs		Middle school gifted programs		High school gifted programs	
Options	n	%	n	%	n	%
No particular model	125	32.1	115	40.2	44	34.1
AP framework and curriculum guides	a	а	41	14.3	78	60.5
Autonomous Learner Model	27	6.9	9	3.1	5	3.9
Consultation and collaboration model	а	а	16	5.2	7	5.4
Depth and Complexity Model	82	21.1	51	17.8	8	6.2
Differentiated instruction model	169	43.4	102	35.7	27	20.9
Enrichment clusters	84	21.6	52	18.2	4	3.1
Enrichment Triad Model	58	14.9	27	9.4	3	2.3
IB framework and curriculum guides	а	а	18	6.3	8	6.2
Integrated Curriculum Model	а	а	32	11.2	5	3.9
Levels of Services	а	а	12	4.2	5	3.9
Multiple Menu Model	31	8.0	25	8.7	5	3.9
Parallel Curriculum Model	46	11.8	35	12.2	3	2.3
Purdue Three-Stage Model	4	1.0	6	2.1	2	1.6
Schoolwide Enrichment Model	42	10.8	21	7.3	а	а
SMPY Model	I	0.3	4	1.4	а	а
Other	70	18.0	29	1.4	5	3.9
Total number of districts responding	389		286		129	

Table 3. Framework for Gifted Programming.

Note. n = number of districts reporting. % = percent of the districts reporting the category. The percentages presented were computed based on the number of districts responded to the question. As the question allowed multiple responses, the total number of responses is greater than the total number of responding districts. Options with an ^a indicate that those options were not available for the certain school level survey. Responses in the "Other" category include no common district model, combination of options provided, state curricular standards, and models developed in house. AP = advanced placement; IB = international baccalaureate; SMPY = Study of Mathematically Precocious Youth.

Content areas and skills developed. The area of language arts at the elementary (47.2%) and high school levels (35.3%) and the area of mathematics at the middle school level (41.7%) were identified as the most developed content areas for serving gifted students (see Table 5). Note that in choosing one area of emphasis, respondents were not given the option to select another area of emphasis. Respondents reported that the most developed skills instruction offered to gifted students was creative thinking at the elementary school level (32.9%) and problem solving at the middle and high school levels (26.5% and 39.3%, respectively; see Table 6).



		Elementary gifted programs		Middle school gifted programs		High school gifted programs	
Options	n	%	n	%	n	%	
Part-time pull-out classes	213	51.9	а	а	а	а	
Cluster grouping of gifted students in general education classrooms with in-class differentiation	75	18.4	30	10.3	3	2.2	
Special classes of homogeneously grouped gifted students within a regular school setting	32	8.0	105	36.1	10	7.4	
In-class differentiation in general classrooms with no clustering of gifted students	23	5.7	33	11.3	8	5.9	
Acceleration by content area (e.g., sending a student to a higher level class for mathematics instruction with older children)	7	1.7	11	3.8	а	a	
A full-time school for gifted students	6	1.5	5	1.7	1	0.7	
After-school learning opportunities (either through programs such as Destination Imagination or Future Problem Solving or through activities developed by the school)	4	1.0	0	0.0	Ι	0.7	
Distance learning or online opportunities	Ι	0.2	2	0.7	Ι	0.7	
Acceleration by grade	1	0.2	1	0.3	а	а	
Ability grouping (e.g., student are placed in advanced classes such as honors classes)	a	a	82	28.2	35	25.7	
Special programs such as the International Baccalaureate Middle Years Programme or Pre- Advanced Placement	a	a	7	2.4	a	a	
Advanced Placement	а	а	а	а	55	40.4	
Dual enrollment (in college or university)	a	a	a	a	9	6.6	
International Baccalaureate	а	a	а	а	3	2.2	
A state-sponsored residential high school	a	a	а	a	0	0.0	
Other	40	11.7	15	5.2	10	7.4	
Total number of districts responding	402		291		136		

Table 4. Program Service Delivery.

Note. Options with an ^a indicate that those options were not available for the certain school level survey. Responses in the "Other" category include combination of options provided for the question, enrichment classes for certain subjects, afterschool or summer programs, independent study, mentorship, and internship opportunities.



	Elementary gifted programs			school rograms	High school gifted programs	
Options	n	%	n	%	n	%
Language arts	162	47.2	90	32.4	42	35.3
Mathematics	62	18.1	116	41.7	39	32.8
Science and technology	36	10.5	32	11.5	17	14.3
Social sciences	22	6.4	14	5.0	4	3.4
Visual and performing arts	6	1.7	4	1.4	I	0.8
Other	55	16.0	22	7.9	16	13.4
Total number of districts responding	371		278		119	

Table 5. Most Developed Content Areas.

Note. In the "Other" category, most of the respondents indicated that they have programs characterized by a balanced development across the core content areas while some of the district coordinators indicated emphasis on mathematics, science, technology, and/or engineering at the middle school and high school levels.

Teacher Qualifications and Professional Development Activities

Teacher qualification requirements. A state endorsement in gifted education or equivalent credentials was required to teach identified gifted students in 53.6%, 49.1%, and 33.8% of the districts at the elementary, middle, and high school levels, respectively. When respondents were asked if there were additional requirements for teaching gifted students beyond state-level requirements, a large proportion of respondents (80.9% and 74.1% at the middle and high school levels, respectively) reported that their district teacher credential requirements did not differ from state-level credential requirements.⁵

Staff development activities. Among those secondary districts that offered targeted professional development, 57.6% and 62% of the districts at the middle and high school levels, respectively, reported fewer than 5 hours per school year of professional development activities focused specifically on meeting the needs of gifted students. Professional development commitments at the elementary school level varied widely from district to district, ranging from as low as 15 minutes to 4 days per year. Strategies for differentiation of curriculum for gifted students were the most frequently noted foci of professional development across all school levels (see Table 7).

Classroom and Program Assessment

Learning outcome measures. The majority of the district respondents (40.1% at the elementary and 64.0% at the middle school level) identified informal classroom assessments (e.g., teacher-developed checklists, interviews, or student satisfaction



Options	Elementary gifted programs			school rograms	High school gifted programs	
	n	%	n	%	n	%
Creative thinking skills	112	30.9	60	22.1	19	15.6
Problem-solving skills	а	а	72	26.5	48	39.3
Metacognitive skills	68	18.8	32	11.8	9	7.4
Research skills	41	11.3	43	15.8	11	9.0
Communication skills	28	7.7	23	8.5	2	1.6
Writing skills	20	5.5	21	7.7	23	18.9
Affective skills	5	1.4	5	1.8	3	2.5
Other	88	24.3	16	5.9	7	5.7
Total number of districts responding	362		272		122	

Table 6. Most Developed Skills Areas.

Note. Problem-solving skills was not an option for the elementary survey. As it appeared multiple times in the "Other" category in the elementary survey responses, it was added as an option for the middle school and high school surveys. Responses in the "Other" category include combination of options provided, reading skills, or content learning skills.

questionnaires) as the primary measures used to assess student outcomes. At the high school level, 45.8% identified AP tests as the most prevalent student outcome measure. Some district coordinators (6.6%, 15.1%, and 11.9% at the elementary, middle, and high school levels, respectively) reported that they do not measure student learning outcomes in gifted programs.

Results of measuring student learning outcomes. Only 8% of the elementary respondents indicated that they used student learning outcome results for program improvement such as curriculum and instruction modifications or professional development opportunities. The remaining elementary respondents did not elaborate on the types of decisions made based on student outcome data or how the outcome results affected policies or practices relating to elementary gifted programs. At the secondary school level, 95.1% of middle school and 69.2% of high school district respondents noted use of student outcome data for curricular and instructional modifications and professional development opportunities.

Formal evaluation and program improvement. Less than 50% of the districts at each school level reported having a program evaluation requirement or strategic plans to monitor and report on the quality of gifted program services (48.8%, 49.8%, and 41.2% at each school level, respectively). Among the districts with program evaluation requirements, 59.8%, 49.6%, and 63.8% of the districts at the elementary, middle, and high school levels, respectively, reported limited internal evaluation with the evaluation carried out by educators in the gifted education program.

Table 7. Staff Development Activities.

	Elementary gifted programs		Middle school gifted programs		High school gifted programs	
Options	n	%	n	%	n	%
Differentiation strategies for teaching gifted students	99	34.4	205	77.9	81	73.6
Characteristics of gifted and talented students	31	10.7	177	67.3	46	41.8
Ways to modify curriculum and instruction for gifted students	28	9.7	139	52.9	52	47.3
Ways to meet social/emotional needs of gifted students	12	4.2	87	33.1	20	18.2
Utilization of assessment in instruction	П	3.8	80	30.4	35	31.8
Ways to identify gifted student from diverse backgrounds	45	15.6	76	28.9	21	19.1
Development of instructional materials for gifted students	a	а	69	26.2	20	18.2
Program service options for gifted and talented	a	а	57	21.7	21	19.1
Ways to work with parents in addressing the needs of gifted students	a	а	55	20.9	8	7.3
Multiple perspectives on giftedness and talents	а	a	44	16.7	21	19.1
Specific content knowledge	а	а	а	а	28	25.5
Other	a	а	30	11.4	17	15.5
Total number of districts responding	288		263		110	

Note. The question asking staff development activities was an open-ended question in the elementary school survey. Based on the categories emerged from the elementary survey responses, multiple-choice options were provided in the middle school and high school surveys. Responses in the "Other" category in the middle school and high school surveys include professional development in the areas of creativity and critical thinking skills, gifted programming, technology integration, gifted service plan development, problem-based learning, questioning skills, and research skills.

Summary of Findings

A gifted program can be thought of as one subsystem within a larger educational system (the district) that provides the context for the services offered to gifted students. Factors such as state regulations, funding levels, student demographics, and teaching faculty (e.g., number, qualifications, skills) all play a significant role in the context of the gifted program and also have a significant impact on the quality of program. Within a gifted program, several components are of primary importance (NAGC, 2010a).



First, the gifted program should be guided by a philosophical belief statement about giftedness and/or a definition that reflects that philosophical position (Marland, 1972; Renzulli, 1978; Renzulli & Delcourt, 2013; Tannenbaum, 1983). This belief undergirds all subsequent components—from defining what it means to be gifted in a particular district to the identification procedures used to assess giftedness. These two components, definition and identification, in theory, should directly guide the types of services that are delivered to students within the program, curriculum, instruction, and supporting resources that are used for instruction and the types of professional development opportunities offered to program faculty (Callahan, Renzulli, et al., 2013). In addition, the philosophical belief statement guides the evaluation component, regardless of whether an evaluation is internal or external. This organized scheme for a gifted program outlines how each component is connected to form the whole (i.e., the gifted program), and it highlights that weakness and/or strength in one component have implications for all other components.

Based on the data collected for this study, the typical gifted program does not operate from a base of strength within the individual components as delineated by the literature or by the Standards (NAGC, 2010a) of the field. This is true across most dimensions reported. Districts are typically not guided by a clear set of program goals focused on student learning outcomes and the notion of a continuum of services is belied by the finding that one service delivery model is used for nearly all identified students in nearly all districts. The data on service delivery systems suggest a one-sizefits-all approach that runs counter to the research findings that gifted students are not a homogeneous group with the same learning needs (Reis & McCoach, 2000; Reis & Renzulli, 2009; Shaywitz, Holahan, & Freudenheim, 2001) and that AP programs at the high school level are not a fit for all gifted high school students (Gallagher, 2009; Hertberg-Davis & Callahan, 2008).

One fourth of respondents at the elementary level and one third at the middle school level indicated that their gifted program had no specific curricular materials that guided program activities; at the high school level, the predominant default curriculum was AP courses, a program now widely believed to be suitable for a wide range of high school students and recommended for a wide range of high school students by the College Board (2016).

Professional development opportunities specifically targeted at providing educators with the knowledge and skills to provide services and instruction to gifted learners is also limited, suggesting that the absence of curricular materials to guide teachers combined with lack of professional development may leave a major gap in the provision of high-quality curriculum and instruction for gifted students.

Beyond simply justifying the investment of school district funds for gifted programming, measuring student learning outcomes as a result of the instruction provided in gifted programming at both the classroom and program levels is necessary to improve practice and ensure maximum student learning. It is not hard to argue that learning outcomes are critically important and useful to measure. Hence, two questions should be asked regarding the measurement of student learning outcomes in gifted programs: (a) Can the district/school provide data on which students have mastered particular learning

outcomes and provide evidence (e.g., assessed student work) for that determination? and (b) Can students, parents, and administrators articulate the desired outcomes of the gifted program? Without being able to answer each of these questions with solid evidence, a gifted program is vulnerable to cuts in funding, staff, or resources; programs may even be eliminated. The results of our surveys suggest such specification of questions or collection of data relative to student learning outcomes is not a mission element in most gifted programs. Of course, the finding that few programs specify student learning goals suggests why measuring such goals may be limited. In addition, the use of clearly identified learning outcomes and routine cycles for program evaluation are rarities for gifted programs at all school levels. Without these components as an integral part of gifted program development and implementation are producing the desired outcome—high-quality, effective education for gifted students.

In the face of competing funds, evaluation of a gifted program is the vehicle that affords school districts the opportunity to respond to accountability demands and to create data for program improvement, development, refinement, and/or expansion. Valuable information can result from learning that a program is or is not achieving its goals, but equally valuable information can be obtained from examining why a program is, or is not, achieving its goals. The intent of implementing a program evaluation is to systematically look at not only what does or does not work, but also for whom, where, and under what conditions. These types of data provide information to stakeholders about program effects, potential limitations of the program, and strengths of the program. Because each of these components are crucial to create quality gifted program systems, our data strongly suggest that gifted programs, in many instances, are not providing the types of services necessary to contribute significantly to the academic, social, and emotional development of gifted youth.

Our finding that the Standards (NAGC, 2010a) are used in less than half of the districts suggests the Standards had not permeated the field at the time of the study. Further education in the importance of standards to guide decision making regarding gifted programs may help address the issue.

Finally, the findings relative to the underrepresentation of students of poverty is discouraging. Given the more than 20 years of attention to the issue through Javits model projects and special conferences (e.g., VanTassel-Baska & Stambaugh, 2007), we had hoped for greater progress. The question of how to bring about real changes in gifted programming that is reflective of current recommended practices looms large.

Moving Forward

One obvious starting point for change in practice is to change policy. As recently as 2009, VanTassel-Baska indicated that policy in gifted education represented a "patchwork quilt of legislative and administrative rules and regulations" (p. 1295). At the federal, state, and local levels, educators look to policy for guidance in formulating practice and, frankly, rely on the enforcement of policy to bolster their argument for funding and support to respond to policy. The formulation of new policies in an



underfunded and vulnerable field such as gifted education is one that may be approached with hesitation as advocates worry that opening the discussion around existing policies may put existing programs or funding at risk. We would argue that to do nothing is to put generations of gifted students at risk for not realizing their full potential. Rather, we are at a time when national conversations are needed.

It is important to reiterate the importance of a school district having written policies and procedures that govern the implementation of gifted programs. Although most districts report having policies or procedures in place for certain aspects of programming (e.g., identification), other areas did not have guiding policies or procedures (e.g., evaluation). The purpose of policies and procedures for guiding decisions about gifted programming is twofold: (a) to ensure that the district is in compliance with existing state laws and regulations and (b) to ensure that the district's practices regarding the education of gifted learners is meeting identified goals. The written policies and procedures provide the framework for a district's internal control. They allow for the documentation of the processes involved in the education of gifted learners, and they provide the benchmarks against which to measure compliance and consistency to the established state laws and regulations by allowing what and how questions to be addressed. That is, they provide clear direction regarding each component of a gifted program from the operational definition of what it means to be gifted in a district to the identification of gifted learners within that district and the services provided to those identified as gifted as well as professional development of the faculty who are responsible for providing those services.

The guidelines for clear policy development have been explicated in several sources. The first step in policy development is identification of issues—a function this report serves as the first step. Many issues and concerns are reflected in these findings. What the leaders in the field now need is to ensure follow through with identification of the issues, the development of content for new policies to guide gifted programming, identification of the right advocates, and the paths those advocates should take in moving policy discussions forward in positive, proactive ways; in communicating the importance of new and improved policy; and in the enforcement of and the evaluation of the implementation of policy.

We are in a time in this country where the practices of gifted education should be leading the way in educating all our youth. Yet, based on the survey responses, in many school districts, practices look little different from practices of 30 or more years ago (see Belcastro, 1998; Dillon & Patty, 1997; Hess, 1990, for state-level reports on gifted programs). It is time for a national dialogue focused on shaping the future of gifted education for the 21st century.

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Notes

- The most recent version provided in the Every Student Succeeds Act (ESSA, 2015), Pub. L. No. 114-95 § 114 Stat. 1177 (2015-2016) is identical to the No Child Left Behind Act (NCLB) definition.
- 2. The category of "Other" with the option of providing a write-in model was also provided.
- 3. There were some school districts whose configuration was out of the ordinary. They were not sampled. For example, a school district that serves only Grades 9 to 12 was removed from the middle school survey sample.
- 4. In the elementary gifted program survey, an open-ended question was provided to examine the definition of giftedness at each district level. However, whether districts followed their state definitions of giftedness or adopted a different definition from their state was not investigated at the elementary school level. At the secondary level (middle and high school), respondents were asked the question of whether the state definition was adopted, but the open-ended question was not asked.
- 5. The elementary survey did not include questions relating to credential requirements relative to state-level requirements.

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