

## **Rates of representation of culturally and linguistically diverse students in South Texas**

Norma A. Guzmán  
Texas A&M University-Kingsville

Mary Ruth Fernandez  
Our Lady of the Lake University

### **ABSTRACT**

This study adds to the research on the problem of disproportionality of Culturally and Linguistically Diverse (CLD) students in special education (SE) in four districts and 13 elementary campuses in south Texas. Data was disaggregated and analyzed at the state, district and campus level when possible utilizing the composition index (Donovan & Cross, 2002). Over-representation of CLD students is measured for the following subjective disability categories: Learning Disabled (LD), Emotionally Disturbed (ED), Mental Retardation (MR) and Speech Impaired (SI). The findings show that the problem of over-representation of CLD students in SE has not improved since the 1970s (Artiles & Ortiz, 2002; Artiles & Trent, 1994; Donovan & Cross, 2002; Heller, Holtzman, & Messick, 1982). Disaggregation of data reveals patterns of disproportionality that need to be addressed by our educational practices that perpetuate this problem.

Keywords: cultural and linguistic diversity, special education, disproportionality

## INTRODUCTION

The problem of over-representation of culturally and linguistically diverse (CLD) and minority students in special programs and classrooms within U.S. schools has a long history (Artiles & Trent, 1994; Donovan & Cross, 2002; Heller, Holtzman, & Messick, 1982; Losen & Orfield, 2002; Valdés & Figueroa, 1994). The trend of disproportionate representation of CLD students includes over-representation in special education (SE) and under-representation in gifted education programs. Research on minority student placement in SE indicates that, “From the enactment of the 1975 federal law requiring states to provide a free and appropriate public education to all students with disabilities, children in some race/ethnic groups have been identified for services in disproportionately large numbers” (Donovan & Cross, 2002, p. 1). Disproportionate representation is defined as “the extent to which membership in a given group affects the probability of being placed in a specific SE disability category” (Oswald, Coutinho, Best, & Singh, 1999, p. 198). Research on the phenomenon of disproportionality has been conducted from interdisciplinary perspectives and through the use of mixed methods approaches.

Two large scale studies have been commissioned by the Department of Education to the National Research Council (NRC) to address the problem of over-representation of minority students in SE, Heller, Holtzman & Messick (1982) and Donovan & Cross (2002). Heller, Holtzman and Messick (1982) found that although the magnitude of the difference in terms of over-representation of minority students in SE varies from state to state, the disproportionate classification of minority students as educable mentally retarded (EMR) was evident by race/ethnicity nationwide. Donovan and Cross (2002) found that minority students, particularly American Indian and Black children, are represented in disproportionately large numbers in some high incidence SE categories (p. 357). As this study shows, data aggregated to the national and state level does not accurately represent the number of students in SE, especially Latino students.

Artiles and Trent (1994) concluded that “the over-representation problem ought to be examined from a multivariate perspective and that the problems exhibited by culturally different children ought to be explained beyond the traditional within-child deficit view” (p. 426). Artiles and Ortiz (2002b) state that taking into account the cultural and linguistic backgrounds of students within “a comprehensive system of services — from prereferral to instruction — will force professionals to transcend what until now has been the field’s almost exclusive focus on student deficits” (p. 19). Research, educational policies and practices need to move beyond ascribing SE labels based on perceived within-child, home or community deficiencies. The research points to a need for disaggregation of data in order to discern disproportionality and examine it from a district and campus level.

### Statement of the Problem

Culturally and linguistically diverse (CLD) students have a history over-representation in SE as mentally retarded and emotionally disturbed (Heller, et al., 1982; Valdés & Figueroa, 1994). Studies that have investigated the question of over-representation point to variability across time and place in terms of the patterns of ethnic disproportionality in SE (Harry & Klingner, 2006, p. 2). There appears to be shift in over-representation under the category of LD (Donovan & Cross, 2002) since the 1980s. Using national and state level data on minority

student representation may not reveal local district and campus patterns of disproportionality (Artiles, Rueda, Salazar, & Higareda, 2005; Rhodes, Ochoa, & Ortiz, 2005).

Disproportionality studies have focused on categorical variables and tend to be: a) aggregated in terms of the placement rate of CLD students in all disability categories; b) aggregated by state level placement rates; and c) do not account for the shift in use of specific disability categories over time (Harry & Klingner, 2006). The variability in results points to a need for disaggregation of the data at different levels within district and campus in terms of program availability and placement as well as diversity within groups represented in the school population, such as Hispanics/Latinos (Artiles, et al., 2005; Artiles & Trent, 1994).

### **Research question and significance**

Based on a review of the literature on the problem of disproportionality of CLD students, there appears to be a need to understand the measurements used in reporting rates of representation of CLD students by way of disaggregating of data, to discern the continued trend from the bottom-up. The following research question was addressed:

- What are the rates of representation of CLD students in SE by ethnicity/race, eligibility category, and language status in the South Texas area? What are the rates of representation of ELLs (LEP) in SE?

The problem of over-representation of CLD students in SE “has largely been ignored by researchers and practitioners in general education” (Artiles, Klinger, & Tate, 2006, p. 3). The traditional explanations of CLD or minority school failure and over-representation in special programs requires a paradigm shift away from binary explanations such as race/ethnic differences, as well as a move away from the division of professional responsibility for the ‘problem’ lying solely with education specialties, such as bilingual or SE (Artiles, et al., 2006).

This study provides data, including profiles of districts and elementary schools in the South Texas area through the examination of data from the Texas Education Agency (TEA). The study focused on investigating the rates of representation of CLD students in high incidence eligibility categories of Mental Retardation (MR; currently changed to Intellectual Deficiency), Emotional Disturbance (ED), Learning Disabled (LD) and Speech Impaired (SI) in the sample districts and elementary campuses. Using national and state level data on minority student representation may not reveal local district and campus patterns of disproportionality (Artiles, et al., 2005; Rhodes, Ochoa, & Ortiz, 2005).

### **REVIEW OF THE LITERATURE**

One of the challenges that has re-surfaced for educators is the prevention, reduction and elimination of the problem of disproportionality of CLD students placed in SE. Valencia, Menchaca and Valenzuela (1993) stated that, “As our nation approach[ed] a new century, the improvement of schooling for economically disadvantaged racial/ethnic minority students [would present] one of the greatest challenges ever faced by educators and policymakers (cited in Valencia, 1997, p. 1). Over-representation of CLD students in SE continues as a dilemma, a problem, and a nationwide phenomenon which calls for an affirmation of the problem within the educational context where it originates – general education; as well as a collaborative effort in ameliorating this static phenomenon (Artiles, Klingner, & Tate, 2006).

CLD student over-representation in SE occurs within ‘high incidence’ categories, such as learning disabled (LD), mental retardation (MR), speech impaired (SI), and emotional disturbance (ED). Low incidence disabilities include multiple disabilities, visual impairment, orthopedic impairment, other health impairment, visual impairment, autism, traumatic brain injury, deaf-blind, and developmental delay. In these ‘low incidence’ categories, there does not appear to be evidence of systematic variation by ethnicity/race (Donovan & Cross, 2002; Harry & Klingner, 2006).

The problem of over-representation of CLD students in SE is complicated by the apparent paradox of SE. In that, SE resources provided through the Individuals with Disabilities Education Act (IDEA), and the right to an individualized education program are framed within a process that requires a child to be “labeled as having a disability” in order to receive services (Donovan & Cross, 2002, p. 2). The label signals substandard performance, although intended to provide accommodation, assistance and support, it may bring lowered expectations on the part of teachers, other children, and the identified students (Donovan & Cross, 2002).

### **Theoretical Framework**

In this study, the theoretical frameworks used to help understand the problem of over-representation begins with the perpetual deficit thinking models used by schools, which have influenced general education and SE policies and practices (Trent, Artiles, & Englert, 1998; Valencia, 1997b; Valencia, 2010). Deficit theories have held the longest currency in educational thought and practice. Valencia and colleagues (Valencia, 1997b; Valencia, 2010) provide an analysis of these deficit theories which is a term used for the theory of school failure of CLD students. Trent, Artiles, and Englert (1998) argue toward a change in theory, research and practice in SE that historically, has relied on models that attributed learning and behavior problems to deficits within children. Trent, et al. (1998) state that SE instructional approaches were derived from deficit thinking perspectives.

Deficit thinking is defined as a theory of school failure for culturally and linguistically diverse (CLD) or minority students that describe culture, language or behavior in terms of limitations, deficiencies or shortcomings in individuals, families and communities (Artiles, 1998; Trent, Artiles, & Englert, 1998; Valencia, 1997; Valencia & Solórzano, 1997). Over the history of attention to the problem of disproportionate representation, scholars and policymakers have privileged a child deficit explanation for student difficulties (Artiles et al, 2006).

In tracing the history and resurgence of deficit thinking models, Valencia (1997b) states that the deficit thinking theory has held the longest currency among researchers, educators and policymakers; in which, this model suggests that CLD students who fail in school do so because of inherent, internal, cultural, social, and linguistic factors which deflects the responsibility of education from systemic factors such as school segregation, inequalities in school financing, educational tracking, the increased use of standardized testing, shortage of ‘highly qualified’ educators, and curriculum inconsistencies. In addition, educator perceptions of CLD students place them at higher risk of being referred, evaluated and found eligible for SE services based on deficit thinking models as well as flawed institutionalized practices.

Trent, et al. (1998) advocate for a paradigm shift that would transcend deficit thinking and promote equitable programming for SE students that considers the sociocultural contexts in which students with disabilities learn. Analysis of disproportionality trends suggests that deficit

perspectives of CLD students by educators continues to place these groups of students at risk for continued over-representation in SE.

### **Sociohistorical perspective**

In tracing the problem of over-representation of CLD student in SE, Artiles and Trent (1994) begin by asking the pertinent question, “Is over-representation a problem?” (p. 410). As Artiles and Trent (1994) argue that disproportionality is a problem, this study attempts to fill a need in the research utilizing multiple analyses and disaggregation of data. Artiles & Trent (1994) propose the need for an interdisciplinary perspectives that incorporates a multivariate layered approach to understanding the continuing discussion. Artiles and Trent (1994) argue that the issue of over-representation needs to be reexamined from a broader perspective in order to understand how and why it has stubbornly persisted and continues to date.

The referral, evaluation, eligibility and placement processes comes into question as the crux of the problem. The 1960s resulted in an era that creation of federal education programs that addressed the needs of CLD and minority students/groups in the U.S. Before this era, students with special needs were simply denied access to the educational system (Artiles & Trent, 1994; Losen & Orfield, 2002). The earliest calls to attention of minority over-representation in SE included the segregation and placement of CLD students in classrooms for students with mental retardation, as well as concerns in the use of the “medical model” to diagnose, place, and serve students in SE programs (Artiles & Trent, 1994, p. 410; Valdés & Figueroa, 1994).

The following categories have been problematic: mentally retarded in the 1970s; language learning disability shift in the 1980s and speech and language problems in the 1990s (Artiles, 2010; Coutinho & Oswald, 2004; Heller, Holtzman, & Messick, 1982; National Research Council, 2002; Rhodes, Ochoa, & Ortiz, 2005; Valdés & Figueroa, 1994). Variation by race/ethnic group eligibility in low incidence disability categories (Donovan & Cross, 2002; Harry & Klingner, 2006) has been a concern, with much of the research focusing on African-American/Black students, as well as on racial/ethnic group differences. Studies on over-representation have indicated clear geographic and demographic conditions in the trend of over-representation of CLD students in the U.S. (Artiles, et al., 2005; Heller, Holtzman, & Messick, 1982).

For Hispanic/Latino children, the work of Dr. Jane Mercer in the 1970s has been “unparalleled in documenting how the school-based diagnostic process presents two alternatives. Either Hispanic children are less intelligent and hence should be over-represented in classes for mentally retarded, or the process, particularly the testing, fails with Hispanic children” (cited in Valdés & Figueroa, 1994, p. 127). A trend in disproportionality of placement of students in SE appears to be evident based on the availability of educational programming (e.g., bilingual education, ESL, and SE).

Research trends in the area of disproportionality have primarily focused on over-representation and racial/ethnic differences (Hosp & Reschley, 2003; Losen & Orfield, 2002). Studies have also focused on African-American student [males] (Harry & Klingner, 2006; Oswald, Coutinho, Best, & Singh, 1999) placement in restrictive settings. Disproportionality tends to be measured by comparing ethnic/minority group representation to the rates of White students. Less research on disproportionality has been conducted on other ethnic groups, and

less research is available on within-ethnic group diversity in terms of disproportionality (Artiles et al, 2005).

Donovan and Cross (2002) state that since the passage of the federal SE law in 1975 (PL 94-142), now called the Individuals with Disabilities Education Act (IDEA), there has been racial disproportion in the assignment of students to SE, most persistently in the category of mental retardation (MR) but also in the categories of emotional disturbance (ED) and increasingly, learning disabilities (LD). Disproportionality exists when students' representation in SE programs or specific eligibility categories exceeds their proportional enrollment in the school's general population (Blanchett, 2006, p. 24). For all students, the learning disabled (LD) category accounts for the largest number of students in SE and for the largest growth rate of placement in SE (Donovan & Cross, 2002).

### **Perspectives on Disproportionality**

In reviewing the debate, Artiles and Trent (1994) and Artiles & Ortiz (2002) stated that the sociohistorical and political contexts of the problem of disproportionality has not been fully examined. For states and districts, current federal regulation, the Individuals with Disabilities Education Act (IDEA) (1997, 2004), mandates a collection and reporting of data on minority representation in SE by category and educational setting. The social construction of disability labels continue to affect educator beliefs, which results in SE programming that sorts and stratifies CLD students (Harry & Klingner, 2006). A focus on establishing standardizing practices (efficiency) now include pre-referral committees, prescribed intervention programs, increase in bilingual/nonverbal testing materials as well as paperwork driven procedures.

In a study of eleven urban school districts in Southern California, Artiles, et al. (2005; 2002), investigated the patterns of disproportionate representation in SE for English Language Learners (ELLs). The study found that students considered English Language Learners displayed over-representation patterns related to grade level, language proficiency status, disability category, type of SE program, and type of language support program at the district level (Artiles, et al., 2005). The disproportionate representation patterns show that students considered ELLs and who displayed limited proficiency in L1 and L2 were the most affected. In other words, students with limited language skills in their native language and English were over-represented in SE at the secondary level within the eleven districts in southern California.

Artiles, et al. (2005) state that "a weakness of research on minority placement in SE is the tendency to overestimate the homogeneity of populations by failing to disaggregate factors such as language proficiency or to consider other relevant variables, ... such as program type" (pg. 283). The diagnosis and eligibility determination for students within the high incidence eligibilities are "typically made by school personnel after the child has started school, relying on a subjective referral and eligibility determination process that varies from district to district and from school to school within the same district" (Blanchett, 2006, pp. 24-25). The research denotes that students do not arrive at school with a diagnosis and ELLs appeared to be affected by both policies and practices for bilingual education and SE. Artiles, et al. (2005) and Artiles, Kozleski, Trent, Osher & Ortiz (2010) support the need for research that disaggregates data by groups and language status. There is a dearth of research on Latino/a students and ELLs.

Data for disproportionality needs to be investigated in as many levels as possible, which includes national, state, district and school (Artiles, et al., 2005; Rhodes, et al. 2005). Research indicates that studies need to disaggregate data when investigating disproportionality. In

addition to Composition indices, Odds ratios, and Risk indices, the following factors need to be considered: 1) educational program availability; 2) within group differences; and 3) language status (ELL).

### **Measuring Disproportionality**

Donovan and Cross (2002) indicate that data that attempts to explain the representation of minority students in SE through statistically aggregated state or national data cannot be explained due to the variability between states in terms of eligibility criteria used under the Individuals with Disabilities Education Act (IDEA). Valdés and Figueroa (1994) state that the entire question as to what constitutes a disparity has evolved into a full-blown debate, which continues to confound the problem of over-representation with the use of aggregated data and without considering intervening variables.

Coutinho and Oswald (2004), claim that the research community has not reached a consensus on the preferred method for measuring the extent of disproportionality (p. 4). The following calculation methods for determining disproportionate representation were reviewed by Donovan and Cross (2002). The composition index (CI) which is calculated by dividing the number of students of a given racial or ethnic group enrolled in a particular disability category by the total number of students (summed across all five racial/ethnic groups) enrolled in that same disability category. The CI reflects the proportion of all children receiving services under a specific category who are members of a CLD group (Donovan & Cross, 2002). Artiles, et al. (2005) used a rule established by Chinn and Hughes (1987) to identify over-representation; in that a group is over-representation in SE is equal or greater than 10% of the percentage expected on the basis of the school-age population (cited in Artiles et al., 2005, p. 289). The CI index answers the question, What proportion of Latino/a students are in SE?

The risk index (RI) is calculated by dividing the number of students in a given racial or ethnic category (e.g., Hispanic/Latino) placed in a disability category or program (e.g., Learning Disabled) by the total enrollment for that racial or ethnic group in the school population (Donovan & Cross, 2002, pp. 42-43). The RI provides the percentage of all students in a given ethnic/racial group identified in a specific eligibility category (Coutinho & Oswald, 2004; Donovan & Cross, 2002). The risk index answers the question: What percent of Latino/a students in the school or district are identified as LD? The risk index illustrates the rate in which a disability occurs by ethnic/racial group.

The Odds ratio (OR) is calculated, which determines an ethnic group's (e.g., Hispanic), 'odds' of being assigned into a specific eligibility category (e.g., Learning Disabled). The odds ratio (OR) divides the risk index of one racial/ethnic group (e.g., Hispanic) by the risk index of another racial/ethnic group (e.g., White) and provides a comparative index of risk (Donovan & Cross, 2002, p. 43). The odds ratios for ethnic/racial groups are typically presented in comparison to White students, in which a ratio greater than 1.0 indicates that ethnic/racial groups are at greater risk of identification for SE (Donovan & Cross, 2002). Odds less than 1.0 indicate that the ethnic/racial groups are less at risk for identification. The risk indexes are expressed as a percent and are placed in a ratio, which results in a single number that characterizes the extent of disproportionality and can be compared across groups (Coutinho & Oswald, 2004). The relative risk ratio, or OR, takes into account race/ethnicity base rates in the population (Coutinho & Oswald, 2004).

Given that these three different indices are used in the disproportionate representation research, it is important to understand what each means to reduce confusion and to be able to interpret the findings from different studies on this topic (Rhodes, et al., 2005). This paper will be reporting the Composition Index (CI) results.

### **Rates of Representation**

A review of the literature has indicated that at the national level, states with large Hispanic/Latino populations tend to have over representations in certain SE categories (e.g., Mental retardation) which may suggest the same pattern for districts and schools (Rhodes, et al., 2005, p. 17). Researchers have noted that Texas is one of the few states that collect data on the number of Limited English Proficient (LEP/ELL) students along with other factors, such as race/ethnicity in regards to student enrollment in SE by eligibility category (Ladner & Hammons, 2001; Rhodes, Ochoa, & Ortiz, 2005). TEA data thus lends itself to analysis to district and selected elementary campuses, focusing on variables that affect disproportionality.

Oswald, Coutinho, and Best (2000) investigation at the school district level suggests that higher rates of representation of Black and Hispanic students as LD and ED was noted in districts characterized as high-poverty. Black and Hispanic students were identified as MR more often in school districts characterized as low-poverty (Cited in Donovan & Cross, 2002, p. 76). This study points to a need to investigate the variables of race and socioeconomic status in the problem of disproportionality.

### **METHODOLOGY**

Data from the Texas Education Agency (TEA) was requested to obtain information on four districts and 13 elementary campuses that participated in the study. The schools represented in the sample were limited due to access provided by the district. The Academic Excellence Indicator System (AEIS), Performance-Based Monitoring Analysis System (PBMAS) reports available to the public were utilized. Additional data was requested from TEA from the Public Education Information Management System (PEIMS). Specific data requests were made to obtain program referral and participation data for school districts, and elementary campuses participating.

The AEIS profile reports were disaggregated by districts and campuses. The AEIS district and campus profile reports for the 2005-2006 school year were utilized for the study. The study used the 2006-2007 PBMAS reports to obtain data on the representation of CLD students in SE. These were the reports that were available. Concurrent data collection of Texas Education Agency AEIS and PBMAS reports occurred. AEIS district and campuses reports as well as district PBMAS reports were downloaded for each district and campus.

### **Participants**

Two districts in the San Antonio area provided support for the study. Five elementary campuses in District one (D1) and six elementary campuses in District two (D2) participated. In addition, one elementary principal in the Rio Grande Valley (RGV) and one elementary principal in another San Antonio district agreed to allow their campus to participate in the research study for a total of 13 elementary campuses.



For the 2005-2006 Texas students totaled 4,505,572. Of these students, 45% were Latino/Hispanic. Over half of the students in Texas were classified as economically disadvantaged (55%). The state Limited English Proficient/English Language Learner (LEP/ELL) population was sixteen percent. Of these ELLs, fifteen percent received Bilingual/ESL programming in the 2005-2006 school year. Eleven percent of the student population receives SE services with two percent of students in Texas also categorized as LEP/ELL.

## RESULTS

What are the rates of representation for CLD students in SE by ethnicity/race, eligibility category/disability, program placement and language status in the South Texas area? What are the rates of representation of ELLs/LEP in SE?

TEA data for the 2005-2006 school year was requested and the composition index (CI) was used to examine disproportionality for CLD students in SE by district and elementary campus level when possible. Student data was disaggregated by race/ethnicity, disability, program placement and language status (LEP SpEd) by state, district and campus level when possible.

The Composition Index (CI) was calculated by dividing the number of students of a given racial or ethnic group enrolled in a particular disability category by the total number of students (summed across all racial/ethnic groups) enrolled in that same disability category (Donovan & Cross, 2002, p. 43). In 2007, Latino/a students made up 45% of the student population in Texas, followed by White students (36%) and African-Americans (15%). Eleven percent of the students in Texas received SE services during the 2005-2006 school year. Almost half (49%) of the SE students were considered Learning Disabled (LD), 6% receive services under the Mental Retardation (MR) category, 7% as Emotionally Disturbed (ED) and 20% as Speech Impaired (SI).

### Sample Rates of Representation

In the four districts in this sample, Latino/a students ranged from 44 to 99.6% of the student population. White students ranged from less than 1% to 42% of the district population. African-American students ranged from less than 1% to 10% of the student population in the districts in this sample. The composition index was calculated to determine the rates of representation of CLD students in SE for the districts and campuses in this sample. White and African-American students made up less than 1% of the student population in D4 and therefore, CI could not be calculated.

Using the CI showed that three of the four school districts that had a higher percentage of students in SE than the state rate. Investigating the number of students receiving SE reveals that the learning disabled (LD) category accounts for 28% of the students in D1, 48% in D2, 40% in D3 and 67% in D4. There were fewer students receiving SE services as MR in two of the four districts (<5%) in this sample compared to the state rate. In D1 and D4, about 7% of the students received services as MR. Under the ED category, D1, D2 and D3 have more students receiving services than the state rate (7.4%). Each district had about 12% of the population receiving SE services as ED. Twenty three percent of students in D1 receive services as speech impaired while 19% in D2, 22% in D3 and 13% of students in D4 receive services as speech impaired.

D1, D2 and D3 may be contributing to the problem of over-representation of CLD students in SE in Texas, specifically under the category of Emotional Disturbance.

Utilizing the CI, Latino/a students were over-represented in SE in D1 (+2.0) and D3 (+2.2). Latino/a students in these two districts were also over-represented in SE in three of the four subjective eligibility categories (LD, MR and SI). Difference scores were calculated by subtracting the composition index of Hispanic/Latino students in SE by the number of Latino/as in the district (See Table 1, Appendix A). Any positive differences indicate over-representation, while negative numbers suggest under-representation in our sample. Although D1 and D3 had an over-representation of Latino/a students in SE, the five elementary schools in D1 and the ES in D3 did not appear to have an over-representation of Latino/a students in SE. Further investigation may be warranted in D1 and D3 to determine which schools could be contributing to the district over-representation of Latino/a students in SE.

Two of the four districts in the sample also indicate an over-representation of Latino/a students receiving services as LD (D1 and D3). The difference score was calculated by subtracting the composition index by the percent of Latino/a students in the district population.

In the sample, Latino/a students were over-represented in two of the districts (D1 and D3). District 1 has the largest proportion of Latino/a students over-represented as MR (+4.0). Latino/a students were under-represented at the state level under the category of ED (-16.1) and were under-represented in the districts in the sample as well.

Disaggregating the data to the district level (Table 2, Appendix B) reveals that three of the four districts in our sample have an over-representation of Latino/a students receiving SE services as SI (D1, D2 and D3). District 3 has the largest rate of over-representation +4.0) of Latino/a students as SI.

In general, Latino/a students (Table 3, Appendix C) were over-represented in the LD category at the state level and in two of the districts in the sample (D1 and D3). Latino/as were over-represented as MR and SI in two of the school districts in the sample (D1 and D3). Latino/a students would be considered under-represented in the category of ED. Latino students account for nearly 100% of the student population in D4; and therefore, only Latino students are represented in SE. Utilizing the composition index to measure over-representation was of limited use in D4.

Over-representation of African-American students in SE was determined by subtracting the composition index of African-American students in SE by the percent of African-American students in the district population. The difference scores (Table 4, Appendix D) indicate that, African-Americans would be considered as over-represented in SE at the state level (+3.4), as well as in D1 (+2.4) and D2 (+1.8). White and African-American students make up less than 1% of the student population in D4 and therefore the CI was not calculated.

African-American students were over-represented as learning disabled (Table 5, Appendix E) at the state level (+4.8) and in three of the four districts in our sample (D1, D2 and D3). District 1 appears to have the greatest rate of over-representation (+4.2) of African-American students under the category of LD. Under the MR category, African-American students were over-represented at the state level (+13.6) and in three of the four districts in the sample. D2 had the largest proportion of over-representation of African-American students as MR (+4.5).

African-American students were over-represented at the state level in the category of ED (+7.3) and were over-represented in three of the four districts in the sample. D2 had the largest proportion of African-American students receiving SE services as ED (+8.8). African-American

students were not over-represented as speech impaired (Table 5, Appendix E) at the state level (-2.1) or in any of the districts in our sample for this category.

Overall, African-American students were over-represented in SE in three of the four soft disability categories (MR, ED, and LD) at the state and district level compared to the percent of African-American students in the state and district population. The data suggests a pattern of over-representation in placing African-American in SE, that has persisted since early studies on this problem (Heller, Holtzman, & Messick, 1982).

White students make up 36% of the student population in Texas (Table 6, Appendix F). In this sample, White students make up 42% of the population in D1, 3% of the population in D2, and 27% of the population in D3. The composition index for White students in SE reveals that they were over-represented as ED in three of the districts in the sample. White students were under-represented as LD. White students were over-represented as SI (+ 2.6) in D1 and MR (+ 5.2) in D2.

At the state level, ELL students were slightly over-represented in SE (See Table 6, Appendix G). In the sample, D3 appeared to display a small over-representation of ELLs in SE (+0.57). Three schools in D2 had an over-representation of ELLs in SE, but disproportionality was not indicated when data was aggregated to the district level. The data suggests a need for further investigation of ELL student representation in SE.

In summary, investigating disproportionality with the CI shows that variability in identification exists when data is disaggregated to the district and campus level by eligibility category and ethnic/racial group identification. The composition index reflects the actual proportion of students identified and served under a disability category. Overall, African-American and Latino students were at greater risk of identification for SE than White students.

## **Discussion / Conclusion**

This study on disproportionality is an extension of decades of research that have previously shown that culturally and linguistically diverse students are at higher risk of referral and placement into SE programs (Artiles & Ortiz, 2002b; Chinn & Hughes, 1987; Donovan & Cross, 2002; Harry & Klingner, 2006; Heller, Holtzman, & Messick, 1982; Losen & Orfield, 2002; Oswald, Coutinho, Best, & Singh, 1999). Theories that rely on deficit thinking (Valencia, 1997b) when examining schooling outcomes for CLD student have held the longest currency in educational thought and practice. SE approaches have also relied on a within-child deficit view (Trent, Artiles, & Englert, 1998). This study investigates disproportionality utilizing the framework of deficit thinking theories to help understand the referral to placement process as well as offer recommendations for changes in pre-service and in-service teacher training.

This study supports other researchers' calls for the need for disaggregation of data to the district and campus level allowing for additional means of examining the problem of disproportionality. Disproportionality studies utilizing the composition index has shown variability when using different measures to examine rate and extent of disproportionality. This study adds to the dearth of research on disproportionality with Latino/a student populations.

States and school districts are mandated to collect and report data on minority student representation in SE and educational settings based on the current federal regulation, the Individuals with Disabilities Education Act (1997, 2004).

The data also show that Latino/a and African-American students are at greater risk of identification for SE compared to White students. The data also indicate an increase in the identification of CLD students for SE under the category of Learning Disabled (LD).

Using the composition index to calculate the proportion of students identified in SE, the findings show that African-American, Latino/a and White students are over-represented in SE at state and district levels when ethnic/racial groups are not separated by individual eligibility categories. At the state level, African-American and White students were considered over-represented in SE. At the district level, African-American students were over-represented in SE under the categories of LD, ED, and MR. There was an over-representation of Latino/a students in SE as LD at the state level and at the district level in the categories of LD, MR and SI. In the districts from the sample, White students were over-represented to some extent under the categories of ED, SI, and MR. Differences in African-American and White student representation in SE has primarily been the focus of studies of disproportionality (Heller, Holtzman, & Messick, 1982; Hosp & Reschley, 2003; Losen & Orfield, 2002; Oswald, Coutinho, Best, & Singh, 1999). Latino/a student rates of representation in SE have varied based on geographic region, density of student population as well as the availability of bilingual education services (Rueda, Artiles, Salazar, & Higuera, 2002; Valdés & Figueroa, 1994).

The current study finds variability in terms of the rate of White student representation based on district demographics. Districts with a smaller number of White students tended to show over-representation of White students in SE. When there were fewer White students in the population, White students seemed to be placed in SE at a higher rate. African-American and White students were also over-represented as ED in three of the four districts in the sample, while Latino students would be considered under-represented in this category.

Donovan and Cross (2002) clearly states that the responsibility for addressing over-representation does not lie with one program (special and regular education) and IDEA as well as the *Standards* (AERA, APA, NCME 1999; Yzquierdo Mclean, 1995) provide guidelines for all educators involved in decision-making teams and practices. Therefore, this burden and accountability fall with all evaluation staff, teachers, principals, counselors, etc. in acknowledging and addressing disproportionality through discourse and praxis. The state and federal regulations since NCLB further state that both regular education and SE programs must work together in addressing the needs of ELLs in U.S. schools.

## **Implications**

The over-representation of culturally and linguistically diverse students in SE and the quality of their educational experiences have been regarded among the most significant issues faced by the U.S. education system in the past 30 years (Coutinho & Oswald, 2004). Educators may not perceive over-representation as a problem, which may continue to perpetuate disproportionality at the campus, district and state levels. Educators' lack of awareness on this topic should also be a concern.

The mis-perception that students are not over-represented in SE does not compel educators to change policies and practices. In addition, these mis-perceptions may lead them to be more likely to refer students to SE and to continue to view CLD student educational difficulties from a deficit perspective (Valencia, 1997b).

There continues to be a real need for better data reporting to inform decision-making by states, districts and campuses. If federal policies (IDEA) would mandate states and districts to

collect disaggregated data by race/ethnicity, disability category and educational setting (Losen & Orfield, 2002), as well as language status, research on over-representation would be improved. This need for adequate data collection requirements by federal and state agencies was also noted by Donovan & Cross (2002). Collection of data disaggregated would better assist educators in understanding the extent and proportion of the problem within their own schools and districts. Educators' awareness of the problem may help produce changes at the school and classroom level that can improve the educational outcomes for CLD students. Improving data collection methods would improve understanding of student outcomes and would be more useful for determining changes for general, bilingual and SE programming and policies.

Research in rural districts and schools that may not be as ethnically diverse is needed. The current research study found that attempting to measure the rates of representation in one small district (D4) was limited due to the lack of student diversity. This district is an example of the difficulties faced in the research on disproportionality when data is both aggregated at the state level as well as disaggregated to the district level.

### *Conclusion*

This study adds to the limited research on CLD students on the issue of over-representation. Prior research has focused primarily on the disparities between White and Black student rates of representation. Latino/a student over-representation at the national level appears to be masked when data is aggregated.

Considering that deficit thinking theories have held the longest currency among educators and policymakers (Valencia, 1997b), this study demonstrates that the problem of disproportionality is not one that has been changed in the past thirty-five years with the addition of federal mandates and policies for CLD students, bilingual students and students with disabilities. As the diversity of our schools increases, the lack of trained and knowledgeable educators places the public education system in a quandary.

### **REFERENCES**

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association.
- Artiles, A. J. (1998). The dilemma of difference: Enriching the disproportionality discourse with theory and context. *The Journal of Special Education*, 32(1), 32.
- Artiles, A. J. (2003). Special education's changing identity: Paradoxes and dilemmas in views of culture and space. *Harvard Educational Review*, 73(2), 164-204.
- Artiles, A. J., Klinger, J., & Tate, W. F. (2006). Representation of minority students in special education: Complicating traditional explanations, Editor's theme issue introduction. *Educational Researcher*, 35(6), 3-5.
- Artiles, A., Kozleski, E., Trent, S., Osher, D., & Ortiz, A. (2010). Justifying and Explaining Disproportionality, 1968-2008: A Critique of Underlying Views of Culture. *Exceptional Children*, 76(3), 279-299.
- Artiles, A. J., & Ortiz, A. A. (2002a). English language learners with special education needs: Contexts and possibilities. In A. J. Artiles & A. A. Ortiz (Eds.), *English language learners with special education needs: Identification, assessment, and instruction* (pp. 3-30). Mc Henry, IL: Center for Applied Linguistics and Delta Systems Co., Inc.

- Artiles, A. J., & Ortiz, A. A. (Eds.). (2002b). *English language learners with special education needs: Identification, assessment, and instruction*. Mc Henry, IL: Center for Applied Linguistics and Delta Systems Co., Inc.
- Artiles, A. J., Rueda, R., Salazar, J., & Higaeda, I. (2005). Within-group diversity in minority disproportionate representation: English language learners in urban school districts. *Exceptional Children, 71*(3), 283-300.
- Artiles, A. J., & Trent, S. C. (1994). Overrepresentation of minority students in special education: A continuing debate. *Journal of Special Education, 27*(4), 410-438.
- Blanchett, W. J. (2006). Disproportionate representation of African American students in special education: Acknowledging the role of white privilege and racism. *Educational Researcher, 35*(6), 24-28.
- Chinn, P. C., & Hughes, S. (1987). Representation of minority students in special education classes. *Remedial and Special Education, 8*, 41-46.
- Coutinho, M. J., & Oswald, D. P. (2004). *Disproportionate representation of culturally and linguistically diverse students in special education: Measuring the problem*. Denver, CO: National Center for Culturally Responsive Education Systems.
- Donovan, M. S., & Cross, C. T. (Eds.). (2002). *Minority students in special and gifted education*. Washington, DC: National Academy Press.
- Figueroa, R. A. (2002). Toward a new model of assessment. In A. J. Artiles & A. A. Ortiz (Eds.), *English language learners with special education needs: Identification, assessment, and instruction* (pp. 51-64). Mc Henry, IL: Center for Applied Linguistics and Delta Systems Co., Inc.
- Harry, B., & Klingner, J. (2006). *Why are so many minority students in special education? Understanding race and disability in schools*. New York: Teacher's College Press.
- Harry, B., Klingner, J. K., Sturges, K. M., & Moore, R. F. (2002). Of rocks and soft places: Using qualitative methods to investigate disproportionality. In D. J. Losen & G. Orfield (Eds.), *Racial inequality in special education* (pp. 71-92). Cambridge, MA: The Civil Rights Project at Harvard University, Harvard Education Press.
- Heller, K. A., Holtzman, W. H., & Messick, S. (Eds.). (1982). *Placing children in special education: A strategy for equity*. Washington, DC: National Academy Press.
- Hosp, J. L., & Reschley, D. (2003). Referral rates for intervention or assessment: A meta-analysis of racial differences. *The Journal of Special Education, 37*(2), 67-80.
- Ladner, M., & Hammons, C. (2001). Special but unequal: Race and special education. In C. E. Finn, A. J. Rotherham & C. R. Hokanson (Eds.), *Rethinking special education for a new century* (pp. 85-110). Washington, DC: Progressive Policy Institute, Thomas B. Fordham Foundation.
- Losen, D. J., & Orfield, G. (Eds.). (2002). *Racial inequality in special education*. Cambridge, MA: The Civil Rights Project at Harvard University, Harvard Education Press.
- Oswald, D. P., Coutinho, M. J., Best, A. N., & Singh, N. N. (1999). Ethnic representation in special education: The influence of school-related economic and demographic variables. *Journal of special education, 32*, 194-206.
- Rhodes, R. L., Ochoa, S. H., & Ortiz, S. O. (2005). *Assessing culturally and linguistically diverse students: A practical guide*. New York: The Guilford Press.

- Rueda, R., Artiles, A. J., Salazar, J., & Higareda, I. (2002). An analysis of special education as a response to the diminished academic achievement of Chicano/Latino students: An update. In R. R. Valencia (Ed.), *Chicano school failure and success: Past, present and future* (2nd ed., pp. 310-332). New York: Routledge Falmer.
- Texas Education Agency. (2005-2006). *Academic Excellence Indicator System (AEIS), District Profile*. Austin, TX: Author.
- Texas Education Agency. (2006). *Performance-Based Monitoring Analysis System 2006 Manual*. Austin, TX: Author.
- Texas Education Agency. (2008a). Academic Excellence Indicator System. from [www.tea.state.tx.us/perfreport/aeis/](http://www.tea.state.tx.us/perfreport/aeis/).
- Texas Education Agency. (2008b). Performance-Based Monitoring and Analysis System. from [www.tea.state.tx.us/pbm/](http://www.tea.state.tx.us/pbm/).
- Texas Education Agency. (2008c). Public Education Information Management System (PEIMS). from [www.tea.state.tx.us/peims/](http://www.tea.state.tx.us/peims/).
- Trent, S. C., Artiles, A. J., & Englert, C. S. (1998). From deficit thinking to social constructivism: A review of theory, research and practice in Special Education. *Review of Research in Education*, 23, 277-307.
- U. S. Department of Education, Office of the Secretary & Office of Public Affairs. (2004). *A guide to education and No Child Left Behind*. Retrieved April, 2007. from [www.ed.gov/nclb](http://www.ed.gov/nclb).
- Valdés, G., & Figueroa, R. A. (1994). *Bilingualism and testing: A special case of bias*. Norwood, NJ: Ablex Publishing Corporation.
- Valencia, R. R. (1997a). Conceptualizing the notion of deficit thinking. In R. R. Valencia (Ed.), *The evolution of deficit thinking* (pp. 1-12). Washington, DC: The Falmer Press.
- Valencia, R. R. (Ed.). (1997b). *The evolution of deficit thinking: Educational thought and practice*. Washington, DC: The Falmer Press.
- Valencia, R. R. (2010). *Dismantling contemporary deficit thinking: Educational thought and practice*. NY: Routledge.
- Yzquierdo Mclean, Z. (1995). History of bilingual assessment and its impact on best practices used today. *New York State Association for Bilingual Education Journal*, 10, 6-12.

**APPENDICES**

- Table 1. Appendix A
- Table 2. Appendix B
- Table 3. Appendix C
- Table 4. Appendix D
- Table 5. Appendix E
- Table 6. Appendix F
- Table 7. Appendix G

**Appendix A**

Table 1. Composition Index of Students in Spec. Ed. by Eligibility

	D1	D2	D3	D4
Special Education	13.1	12.1	13.3	8.5
Learning Disabled	38.5	47.6	40.4	66.7
Mental Retardation	4.2	6.6	4.6	7.5
Emotional Disturbance	11.9	11.9	12.6	1.1
Speech Impaired	23.2	19.0	22.3	13.2

Source: Texas Education Agency, 2005-2006, PEIMS

Note: D1 = District One; D2 = District Two; D3 = District three; D4 = District four  
 CI = Composition Index; % pop = percent of the population; Diff = Difference

**Appendix B**

Table 2. Latino/as in Spec. Ed. by District, 2005-2006

	Latino/as in Special Education		
	% in Sp. Ed. CI	% in Population	Difference %
District 1	46.0	44.0	+ 2.0
District 2	83.1	87.7	- 4.6
District 3	63.4	61.2	+ 2.2
District 4	*	*	*

Source: Texas Education Agency, 2005-2006, AEIS, PBMAS, PEIMS reports. \* N/A

**Appendix C**

Table 3. Latino/a Student Rates of Representation in Sp. Ed. by Eligibility, 2005-2006

	D1			D2			D3			D4		
	CI	% pop	Diff	CI	% pop	Diff	CI	% pop	Diff	CI	% pop	Diff
LD	52.6	44.0	+8.6	86.6	87.7	-1.1	70.1	61.2	+8.9	100	99.6	+0.4
MR	46.5	44.0	+2.5	78.3	87.7	-9.4	62.6	61.2	+1.4	100	99.6	+0.4
ED	37.2	44.0	-6.8	74.2	87.7	-13.5	56.0	61.2	-5.2	*	99.6	*
SI	44.5	44.0	+0.5	89.3	87.7	+1.6	65.2	61.2	+4.0	100	99.6	+0.4

Source: Texas Education Agency, 2006-2007, AEIS, PBMAS, PEIMS reports.



**Appendix D**

Table 4. African-Americans in Sp. Ed. by District, 2005-2006

	African-American		
	% in Sp. Ed. CI	% in Population	Difference
District 1	12.2	9.8	+ 2.4
District 2	10.6	8.8	+1.8
District 3	7.8	8.0	- 0.2
District 4	*	*	*

Source: Texas Education Agency, 2005-2006, AEIS, PBMAS, PEIMS reports. \*N/A

**Appendix E**

Table 5. Af-Am Student Rates of Representation in Sp. Ed. by Eligibility

	D1			D2			D3		
	CI	% pop	Diff	CI	% Pop	Diff	CI	% pop	Diff
LD	32.0	9.8	+22	2.9	8.8	-0.1	20.3	8.0	-7.3
MR	13.7	9.8	+3.9	13	8.8	+4.5	8.4	8.0	+0.4
ED	15.6	9.8	+5.8	17.6	8.8	+8.8	9.7	8.0	+1.7
SI	8.0	9.8	-1.8	6.7	8.8	-2.1	5.8	8.0	-2.2

Source: Texas Education Agency, 2005-2006, AEIS, PBMAS, PEIMS reports.

**Appendix F**

Table 6. White Student Rates of Representation in Sp. Ed. Education by Eligibility

	D1			D2			D3		
	CI	% pop	Diff	CI	% Pop	Diff	CI	% pop	Diff
LD	32	42.0	-10	2.9	3.0	-0.1	20	27	-7.3
MR	37	42.0	-4.6	8.2	3.0	+5.2	25	27	-2.3
ED	46	42.0	+3.9	7.7	3.0	+4.7	33	27	+5.9
SI	44	42.0	+2.6	3.7	3.0	+0.7	26	27	-1.1

Source: Texas Education Agency, 2005-2006, AEIS, PBMAS, PEIMS reports.