Disproportionality in Special Education Identification and Placement of English Language Learners

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ABSTRACT: *This study explored the extent of disproportionality in the identification and placement of culturally and linguistically diverse students identified as English language learners in special education. Descriptive statistics and regression analyses examined patterns and predictors of identification and placement in special education among English learners throughout the state relative to their White peers. The results indicate that these students are increasingly likely to be identified as having learning disabilities or mental retardation, and are less likely to be served in either the least or most restrictive educational environments relative to their White peers. The author also examined the influence of several district-level factors commonly explored in studies of racial disproportionality and found that these factors did not evidence similar relationships to the disproportionate representation of English language learners. The study presents implications for further research and practice.*

S tudents identified as culturally and linguistically diverse (CLD) represent an ever increasing percentage of the U.S. student population, with English language learners (ELLs) comprising the fastest growing subgroup (Genesee, Lindholm-Leary, Saunders, & Christian, 2005). (This article uses the term "culturally and linguistically diverse," CLD, to refer to students from racial/ethnic minority groups and linguistic minority groups [i.e., those speaking native languages other than

English]. CLD includes students who are English language learners because they represent students whose first languages are not English and who have not yet achieved proficiency in English.) Unfortunately, evidence suggests that students identified as CLD are not receiving the services and supports they need to be successful in school (Artiles & Ortiz, 2002).

Examination of school characteristics and educational outcomes reveals pervasive disparities in resources, opportunities to learn, and attainment that disadvantage CLD students relative to

their mainstream White peers (Brayboy, Castagno, & Maughan, 2007). (This article refers to students identified as White as the referent group for equity comparisons, following the rationale of Artiles, Rueda, Salazar, & Higareda [2005], which states: "(a) White students have been traditionally used as a comparison group in equity analyses because they are the dominant group in society who have not had systematic problems with access and opportunity issues, (b) White students have been used historically as a contrast group in this literature that facilitates trend analyses, and (c) White students can be used as a stable contrast group because various cultural and linguistic groups are compared to the same group" [p. 289].)

Results are particularly dire for students identified as ELLs, who have among the highest grade retention and dropout rates of all youth (Duran, 2008). Other societal and systemic factors further shape these students' educational experiences; these factors include English-only legislation, the availability of language supports, and the widespread shortage of bilingual practitioners. Indeed, approximately 30% of all students identified as ELLs (Planty et al., 2009) reside in states where English-only legislation dictates the type and amount of language support available to students. Such limitations of these students' opportunities to learn can result in undesirable outcomes (e.g., behavioral issues, low engagement, grade retention, dropout), not the least of which is (inappropriate) referral to special education (Suárez-Orozco, Roos, & Suárez-Orozco, 2000). The field continues to struggle with uncertainty regarding how to best provide instruction and access to English language curricula and an unclear role of special education in remediating learning difficulties (Artiles & Klingner, 2006).

DISPROPORTIONALITY IN SPECIAL EDUCATION

The disproportionate representation of CLD students in special education is a long-standing issue first introduced in the literature more than 40 years ago (Dunn, 1968), twice studied by the National Research Council (Donovan & Cross, 2002; Heller, Holtzman, & Messick, 1982), and frequently examined in the scholarly literature. Not only does disproportionality exist in special education identification, but in placement decisions, disciplinary consequences (Skiba, Michael, Nardo, & Peterson, 2002), academic performance, and exiting from special education services (Blanchett, 2006). For a field built on the principle of fairness, formed in the wake of *Brown v. Board of Education,* and grounded in the rhetoric of the civil rights movement (Blanchett, 2006), ongoing disproportionality strongly indicates systemic problems of inequity, prejudice, and marginalization within the education system. Studies of disproportionality have generally focused on the high-incidence categories of specific learning disabilities (SLDs), mild mental retardation (MIMR), emotional disabilities (EDs), and, to a lesser extent, speech-language impairments (SLIs). Together, these four categories constitute more than 82% of students receiving special education services (U.S. Department of Education, ED, 2009). Moreover, many researchers have concerns about these categories because their definitions are vague and inconsistent across contexts; and diagnostic practices differ considerably among states, school systems, and individual practitioners (Klingner et al., 2005).

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The literature on disproportionality has primarily consisted of analyses of identification patterns for students identified as African American, and, less frequently, Latino, Asian, and Native American. The ED and MIMR categories consistently have included an overrepresentation of students identified as African American; the learning disabilities (LD) category has included frequent overrepresentation of students identified as Native American; whereas each of the four categories has

included a national underrepresentation of students identified as Asian and Latino. However, for Asian and Latino students, some states, districts, and schools have shown overrepresentation, particularly in the LD category. For Latinos especially, patterns of representation can vary substantially at the local level, leading researchers to call for further studies to examine patterns of representation (Klingner, Artiles, & Mendez-Bartletta, 2006).

Researchers have examined many factors implicated in the disproportionate representation of racial minority students in special education and have demonstrated that no one factor alone explains disproportionality. Instead, predictors of disproportionality vary by the group and the disabilities studied. Demographic factors (e.g., minority enrollment, proportion of teachers from minority backgrounds) have historically been strong predictors of overrepresentation (e.g., Finn, 1982; Parrish, 2002; Serwatka, Deering, & Grant, 1995). Academic variables have generally been found to be weak and inconsistent predictors of disproportionality (e.g., Hosp & Reschly, 2004). Researchers have shown indicators of child poverty (e.g., proportion of students receiving free or reduced-price lunch, median community income) to be positively related to overrepresentation in some categories (e.g., MIMR for Native American students) and inversely related in others (e.g., ED, SLD, and SLI for African American students; Coutinho, Oswald, & Best, 2002; Skiba, Poloni-Staudinger, Simmons, Feggins-Azziz, & Chung, 2005).

THE CASE OF ELLS IN SPECIAL EDUCATION

Substantial variation exists in the United States in the rates of special education identification for students identified as ELLs, with states reporting from zero to 17.3% (Hopstock & Stephenson, 2003). The average for all U.S. students is approximately 9% (ED, 2009). Although federal special education law now requires states to monitor and address racial disproportionality, the policy does not address ELLs. Federal databases (e.g., Office of Civil Rights and the Office of Special Education Programs) only recently began collect-

ing data on identification and placement by language status even though reporting by racial category has long been in place. Indeed, few school systems have adequate mechanisms in place to collect identification, placement, or outcome data for students identified as ELLs in special education (Zehler et al., 2003), possibly because reporting was not mandated; and for many states, ELLs in special education comprise an emerging population.

Despite the scarcity of large-scale data on students identified as ELLs in special education, some studies have addressed this issue. In the 1980s, the Handicapped Minority Research Institutes in California and Texas reported that Latino children of foreign-born parents were more likely to be identified as disabled, especially when tested in English, and that the referral and eligibility reasons were often related to language proficiency (as cited by Rueda, Artiles, Salazar, & Higareda, 2002). In an analysis of data for 11 California districts, Rueda and colleagues (2002) found that special education identification of students identified as ELLs increased beginning in fifth grade and became increasingly pronounced in secondary school. These researchers posited that the rise was due to decreased language support services as students progressed through grades, noting that students with less native language support were more likely to be served in special education. Students identified as ELLs who had lower proficiency in both their native language and English have also been found to have the highest rates of identification relative to other students identified as ELLs in select California districts (Artiles et al., 2005), with overrepresentation noted in the SLD and SLI categories and in districts with large ELL populations.

Additionally, results for one urban southwestern U.S. district showed that students identified as ELLs were overrepresented in MIMR, SLD, and SLI at rates more than twice that of their White peers, and that they were subjected to substantially more restrictive placements (Valenzuela, Copeland, Qi, & Park, 2006). Most recently, Samson and Lesaux (2009) found that ELL students were underrepresented in special education in the primary grades but overrepresented beginning in third grade, consistent with earlier findings. The investigators conjectured that

these patterns were due to lack of services for ELLs with disabilities and teacher reluctance to refer ELLs in the primary grades.

A somewhat paradoxical pattern of overrepresentation and underrepresentation seems to exist in the United States, presumably because both underreferral and overdiagnosis occur because of misunderstanding of the educational needs of students identified as ELLs (Case & Taylor, 2005), poorly designed language assessments (MacSwan & Rolstad, 2006), and weak psychoeducational assessment practices (Figueroa & Newsome, 2006). Lack of effective instruction negatively influences assessment results, which are further confounded by the fact that tests designed for native English speakers may lack reliability and validity with students identified as ELLs (Abedi, 2006). For many practitioners, the distinction between emergent English proficiency and disability can be a difficult one to make (Keller-Allen, 2006); and it is common for language acquisition to be confused with learning problems (Artiles & Klingner, 2006). Educational professionals often find it difficult to meet the requirements of special education statutes when completing cognitive, academic, and behavioral assessments. Such difficulties arise from the limited array of available instruments in most ELLs' native languages, professionals' lack of training in linguistic and cultural differences, and the shortage of bilingual educators and psychologists (Figueroa & Newsome, 2006).

Another difficulty facing practitioners in distinguishing linguistic difference from disability, particularly a learning disability (LD), is the tendency for both students identified as ELLs and students identified with LD to perform poorly on academic tasks with high language demands, which may make ELLs even more vulnerable to misclassification as having a disability (Abedi, 2006). Nonetheless, the large proportion of these students who do struggle academically suggests that many of the difficulties are not likely due to educational disability (Lesaux, 2006). Instead, these students may be inappropriately routed into special education as a convenient way to "do something" without adequately considering programmatic limitations (e.g., as noted in the early 1970s, Mercer, 1973), or when teachers are at a loss about how to provide effective instruction

(Harry & Klingner, 2006). Conversely, students may miss out on needed services and supports when educators assume that their difficulties are solely due to emerging English proficiency (Limbos & Geva, 2001) or when districts only allow for students to be categorized as either ELL or as having a disability, but not as both simultaneously (Lesaux, 2006). The inappropriate identification of some ELL students has led to high-profile litigation regarding discriminatory assessment and placement (e.g., *Diana v. State Board of Education*, 1970, 1973), which in turn has made some school systems wary of referring students for consideration of special education eligibility. Historically, there has been evidence to suggest that districts wait to refer students to special education because of a lack of trained personnel or effective programs for students with disabilities and emerging English proficiency (Campbell, Gersten, & Kolar, 1993). Indeed, the literature suggests that students identified as ELLs begin receiving special education services 2 to 3 years later than the average for students who are English-proficient (Wagner, Francis & Morris, 2005), which may be attributable to these factors.

As a result of such delays and difficulties, ELL students are at risk of inappropriate services because of both misidentification and failure to be identified. For the former group, the potential detrimental effects of special education labels are concerning; whereas for the latter, the consequences of delayed intervention are problematic because of the compounded difficulty in overcoming learning problems (Wagner et al., 2005). These issues, coupled with early evidence that students identified as ELLs make few gains and often show declining performance in special education (Gersten & Woodward, 1994), underscore the necessity to elucidate this issue and provide sound guidance to educators. This study has examined patterns and predictors of special education identification and placement for students identified as ELLs in an effort to add to this emerging knowledge base.

THE PRESENT STUDY

Using existing data for students identified as ELLs in special education from a southwestern state,

this study was designed to examine the representation of students identified as ELLs relative to their White peers over an 8-year period. This study built on the existing literature by examining representation by both disability category and type of placement (i.e., extent of access to general education settings) over time. Further, to shed light on the structural factors potentially related to patterns of representation, the study examined the relationship between the observed patterns of representation and placement to predictors commonly studied in the literature on racial disproportionality.

This study contributes to an accumulating knowledge base concerning the representation of this group among students with disabilities through its use of a sample of identified ELLs for an entire state. The present analysis allows for the study of patterns of representation *and placement*—for which our knowledge base is especially limited—at both the aggregated state and local education agency levels (referred to throughout as *districts*) for an entire state. Examining the extent of disproportionality at the various levels of analysis is an important first step in understanding the forces behind the issue (Bollmer, Bethel, Garrison-Mogren, & Brauen, 2007), and identifying potential approaches to correcting disparity. The literature has demonstrated the need to analyze disproportionality at multiple levels (Artiles et al., 2005); whereas national aggregates of identification data may suggest that disproportionality in special education is not an issue for certain populations, analyses at the state and district levels present a different picture. In particular, state- and district-level analyses of racial disproportionality have highlighted the need to examine variations in placement at the local level because aggregated analyses can mask important patterns of underrepresentation and overrepresentation.

Four research questions guided this study:

1. To what extent is there a disproportionate representation of students identified as ELLs in special education, focusing on high-incidence categories, at the state level over time?

2. To what extent is disproportionality observed at the district level over time?

3. To what extent are students identified as ELLs placed in the least restrictive environment at the state and district levels over time?

4. To what extent can one predict disproportionate representation of ELLs at the district level, considering certain district characteristics?

METHOD

DATA SOURCE

This study consists of analyses of existing data on district-level general and special education enrollment and other data concerning district demographics and resource characteristics available from the state department of education for the 1999 to 2006 academic school years to investigate the extent of disproportionality among students identified as ELLs and the relationships between disproportionality and district factors. Annual data on general and special education enrollment for the state and each district were obtained via a research agreement with the state.

SAMPLE

Because this study is a secondary analysis of state data, limitations are inherent in the sample, selection of variables, and analysis. State statute defines a student who is an English learner as "a child who does not speak English or whose native language is not English, and who is not currently able to perform ordinary classroom work in English" (Arizona Revised Statute 15-751, 2007). Of course, students identified as ELLs are a heterogeneous group characterized by a variety of native languages, cultures, races, countries of origin, language proficiencies, socioeconomic statuses, educational experiences, and time in the United States (Artiles et al., 2005; Zehler et al., 2003); but by virtue of the available data, this study treated the ELL students as one group. The study sample included only those districts reporting enrollment data for students identified as ELLs. The total number of districts reporting data for ELLs each year showed an increasing trend, with the sample accounting for 72% of the state's total student population in 1999 and more than 87% in 2006. In addition, districts were excluded due to low enrollment ($n < 10$) of students identified as

TABLE 1

Demographic Characteristics of Sample by Academic Year

Year	Number of Districts	Total Students	ELLs n (%)	White n (%)	Special Education n (%)
1999	119	627,094	104,607 (16.68)	307,098 (48.97)	66,785 (10.65)
2000	115	707,214	115,944 (16.39)	361,817 (51.16)	74,147 (10.48)
2001	113	717,745	128,077 (17.84)	353,568 (49.26)	77,317 (10.72)
2002	154	837,345	144,504 (17.26)	411,073 (49.01)	92,347 (11.03)
2003	194	881,823	153,453 (17.40)	422,924 (48.96)	108,266 (12.28)
2004	214	920,349	143,801 (15.62)	435,668 (47.38)	119,801 (13.02)
2005	219	976,524	131,078 (13.42)	420,055 (43.02)	127,720 (13.08)
2006	230	978,102	136,783 (13.98)	436,911 (44.67)	133,804 (13.68)

Note. ELL = English language learner.

ELLs because the risk ratio could not be reliably calculated for such small cell sizes (Bollmer et al., 2007; Skiba et al., 2005). Table 1 shows the general demographics of the sample.

The disability categories examined in this study include MIMR, SLD, SLI, and ED, based on state definitions. As previously noted, these are the high-incidence categories and include the majority of students identified for special education. The small cell sizes in the other categories (e.g., deafness, orthopedic impairment, etc.) would not permit the reliable calculation of the risk ratio. Placement categories, defined by the state, included a designation of the amount of time removed from the general education environment for special education services; percentage of time removed did not include possible time removed to receive language support services. State data for the 2006 to 2007 academic year provided seven predictor variables. The availability of such data, as well as previous research findings on disproportionate representation among racial minority students had suggested these variables (e.g., Coutinho et al., 2002; Finn, 1982; Parrish, 2002; Skiba et al., 2005). The variables under investigation included the following:

- District enrollment.
- Proportion of district enrollment that was ELL.
- Proportion of enrollment that was racial/ethnic minority.
- Proportion of students receiving free and reduced-price lunch.
- Proportion of teachers that were minorities.
- Proportion of teachers holding English as a second language (ESL) certification.
- Student-teacher ratio.

With the exception of the proportion of teachers holding ESL certifications, which is posited to be logically related to the treatment of students identified as ELLs in both general and special education, each variable has been examined in previous studies of racial disproportionality and has been found to be predictive of disparities in identification.

CONTEXT

This study took place in a southwestern state that enrolled about 1.1 million students. Students identified as ELLs constituted approximately 16% of enrollment; and students identified as racial minorities comprised 55% of enrollment, with Latinos representing the predominant minority group at 39% of enrollment. Most (91%), of the students identified as ELLs spoke Spanish, compared to 75% nationally (Planty et al., 2009). In addition, more than 44% of all students were eligible for free or reduced-price lunch, and almost 8% received special education services. Of those students receiving special education, 46% were White, 39% were Latino, 7% were Native American, 7% were African American, and 1% was Asian/Pacific Islander. Previous research con-

ducted on the state indicated that students identified as African American and Native American were overrepresented in special education and in some of the high-incidence categories, and that Latino students were somewhat more likely than their White peers to be identified as having mental retardation (Sullivan, 2007).

In 2000, English-only legislation was passed in the state, requiring that all instruction be provided in English and eventually (i.e., the 2008–2009 academic year) requiring that students identified as ELLs be separated into English-immersion classrooms for 4 hr per day. Before this recent legislation, districts employed a variety of language support models (e.g., dual-language programs, ESL, immersion programs). Scholarly concern regarding the effect of such legislation on students' educational experiences and outcomes has led to a wave of research in this state and others with similar statutes (i.e., California and Massachusetts; Olson, 2007; Stritikus & García, 2005). Although not the focus of this particular study, this analysis allows for consideration of changes in identification rates following the implementation of the English-only legislation in 2001.

In addition, for much of the duration of this study (i.e., the first 6 years from 1999–2004), methods for determining ELL status varied throughout the state, as districts selected from a variety of instruments and criteria. In 2004, use of the Stanford English Language Proficiency Test (Harcourt, 2003) was required; later, in collaboration with Harcourt Assessment, the state department of education developed its own English-proficiency assessment to be used in all school districts. As MacSwan and Rolstad (2006) reported, however, such tests generally lack sound theoretical bases, understanding of Spanish, and strong psychometric properties and may fail to provide valid information about a person's true language functioning.

DATA ANALYSIS

Disproportionality refers to "the extent to which membership in a given . . . group affects the probability of being placed in a specific disability category" (Oswald, Coutinho, Best, & Singh, 1999, p. 198). In conjunction with this definition, this study used the relative risk ratio (RRR) to determine ELLs' relative likelihood of identification/placement compared to White students. This group (White) was selected as the referent based on the rationale provided by Artiles and colleagues (2005). Thus, the referent group was selected based on the situation of this study within broader concerns for educational equity, in which White students, as opposed to a category that might be called "English-proficient students," are often the implicit or explicit comparison group. Although this comparison may lead to concerns about the possible confounding of language and race, within the state in question, ethnic minority students, particularly those identified as Latino, comprise most of the students identified as ELLs, and more than 91% are Spanish-speaking students of Mexican origin (Center on Education Policy, 2007). These data suggest that the risk of overlap in the two groups is small.

The risk ratio is an epidemiological statistic, commonly used in analysis of binary outcomes, and is a measure of effect size commonly employed in medical research. Here, the indicator is used to represent ELLs' risk of identification/placement in a given category compared to White students' risk in the same category. This study used the term *relative risk* because the effect of the risk factor (e.g., language status) was evaluated relative to some referent group (i.e., White students), and was therefore not an absolute indicator of risk (Mason, Scott, Chapman, & Tu, 2000). A positive risk ratio indicated that ELL status was associated with an increased likelihood of special education identification or placement relative to the comparison group, whereas a negative ratio indicated a decreased likelihood. The risk for the referent group served as the baseline level of risk that may have resulted from other variables (Mason et al., 2000) outside of language status. This study investigated ELL status as a factor that might have a substantial effect on overall rates of identification at the population level for students.

Within the literature, cutoffs for determining disproportionality have included 1.2., 1.5 (Skiba et al., 2005), and 2.0 (Parrish, 2002), whereas state criteria have ranged from 1.0 to more than 4.0 (Sullivan, Kozleski, & Smith, 2008). Consistent with recommendations from the field, this

study defined the acceptable range of risk ratios as values between 0.80 and 1.20 (Kozleski, 2005; Oswald & Coutinho, n.d). Specific delineations of overrepresentation and underrepresentation have varied considerably within the research literature and in state and district practice; thus, this study used these criteria to serve as a meaningful way to quantify and categorize special education identification and placement trends, particularly concerning equity.

Correlational analyses and multiple linear regressions were used to examine the relationships between the district-level disproportionality and the predictors chosen. The study used the relative risk ratios obtained in the initial phase of the analysis for identification and placement as the dependent variables in the models. All variables were standardized to meet the assumptions of inferential statistics (Skiba et al., 2005). Significance levels equal to or less than 0.01 were reported given the number of analyses to reduce the risk of Type I error.

RESULTS

PATTERNS OF ELL IDENTIFICATION IN SPECIAL EDUCATION

This study addressed the question regarding the extent of state-level disproportionality in special education for students identified as ELLs by examining identification patterns for the aggregate sample for each year. Table 2 shows these results, as well as information on district-level patterns of underrepresentation and overrepresentation, as indicated by the relative risk ratio criteria described previously. The results showed that at the state level, students identified as ELLs were increasingly overrepresented in special education and in each of the high-incidence categories of SLD, SLI, and MIMR, as other studies of ELL representation in special education have shown. Overrepresentation was highest in SLD and MIMR, where the 2006 risk ratios reached 1.82 and 1.63, respectively. A high degree of underrepresentation was persistent for ED.

Both underrepresentation and overrepresentation were common in many categories at the district level, although, consistent with rising risk

ratios at the aggregate level, districts were increasingly less likely to evidence underrepresentation, as shown by the decreasing proportion of districts with risk ratios less than 0.80 across most of the categories examined (see Table 2). The results indicated an increasing frequency of overrepresentation in special education generally and in the specific disability categories of SLD and SLI. Despite increasing state-level risk ratios for MIMR identification, the proportion of districts with overrepresentation in this category decreased after 1999 and was less than most of the categories examined, suggesting that the identification practices among a small proportion of districts with high relative risk strongly affects statewide rates of identification.

PATTERNS OF ELL PLACEMENT IN SPECIAL EDUCATION

The majority of students identified as ELLs who receive special education services, approximately 51%, spent at least 80% of their time in general education settings. Though patterns varied across the state and district levels (see Table 3), the data suggested that students identified as ELLs were less likely to be placed in the very least restrictive environment compared to White students. (This least restrictive placement entailed no removal from the general education classroom to receive special education services.) However, they were also less likely than their White peers to be removed for most of the school day. Students identified as ELLs were increasingly represented among those who spent at least part of their day in separate settings (e.g., resource rooms), though a downward trend has occurred in the relative risk of removal for the majority of the school day. The trend toward increasing placement in special education settings such as resource rooms is concerning given that most special education teachers lack adequate training to work with this population (Baca & Cervantes, 2004).

PREDICTORS OF DISPROPORTIONALITY

To evaluate how well district characteristics predicted disproportionality in special education, the study included multiple regression analyses in each of the high-incidence disability categories and in each of the placement categories. Variance

TABLE 2

Patterns of State and District Disproportionality in Disability Identification: State-Level Relative Risk Ratios and Percentage of Districts With Relative Risk Ratios Indicative of Overrepresentation and Underrepresentation

RRR and Special Education Category	1999	2000	2001	2002	2003	2004	2005	2006
Special Education								
State RRR	0.77	0.84	0.77	0.90	0.9	1.05	1.13	1.19
% Districts <0.80	52.10	57.39	53.10	50.65	46.39	36.92	28.77	27.39
% Districts >1.20	31.93	26.96	23.01	25.97	28.87	42.06	46.57	42.31
SLD								
State RRR	1.30	1.01	0.99	1.21	1.35	1.53	1.72	1.82
% Districts <0.80	42.86	38.05	38.94	27.92	29.38	22.90	21.00	20.00
% Districts >1.20	36.97	33.63	43.36	41.56	45.36	52.34	58.90	56.96
MIMR								
State RRR	1.24	1.22	1.06	1.19	1.33	1.49	1.42	1.63
% Districts <0.80	16.81	19.33	19.47	15.58	10.31	34.11	31.05	37.83
% Districts >1.20	25.20	29.57	20.35	18.18	20.10	21.50	22.83	16.96
SLI								
State RRR	0.69	0.74	0.64	0.95	0.98	1.14	1.22	1.30
% Districts <0.80	36.97	34.78	40.71	28.57	23.32	20.01	30.59	30.30
% Districts >1.20	14.29	15.04	14.16	18.83	19.59	27.57	33.33	32.61
ED								
State RRR	0.15	0.18	0.18	0.21	0.21	0.22	0.10	0.12
% Districts <0.80	36.13	36.52	37.17	27.92	27.83	26.64	23.29	24.78
% Districts >1.20	0	0	0	0	0	0	0.43	0

Note. RRR = relative risk ratio of overrepresentation or underrepresentation; SLD = specific learning disability; MIMR = mild mental retardation; SLI = speech-language impairment; ED = emotional disability.

inflation factors (VIFs) were calculated for each predictor to evaluate multicollinearity; all VIFs were of acceptable values (< 4), indicating that multicollinearity was not a concern (Cohen, Cohen, West, & Aiken, 2003). As previous research has demonstrated (e.g., Oswald et al., 1999, 2001; Skiba et al., 2005), the predictors of disproportionality varied by the categories studied (see Table 4). As discussed previously, this study included certain predictors because previous research had shown these factors to be related to the overrepresentation of racial/ethnic minorities in special education, but the linear models were generally weak with small effect sizes and inconsistent predictors of the identification and placement of students identified as ELLs.

The predictive power of district characteristics examined in this study was strongest for over-all special education identification, $F(7, 134) = 3.58$, $p < .001$, and placement with minimal removal (i.e., less than 21% of the school day) from the general education environment, $F(7, 135) = 2.59$, $p < .01$. Districts with higher proportions of students identified as ELLs were less likely to have disproportionality in special education generally, SLD, or SLI, which differs from earlier research that showed this to be predictive of overrepresentation (Artiles et al., 2005; Finn, 1982), but confirms the findings of Zehler and colleagues (2003). Districts with high proportions of teachers with ESL certification were more likely to place students identified as ELLs in the least restrictive environment. Additionally, poverty, as indicated by the proportion of students receiving free or reduced-price lunch, was inversely related to disproportionality in SLI.

TABLE 3

Patterns of State and Districts Disproportionality in Special Education Placements[a]: State-Level Relative Risk Ratios and Percentage of Districts With Relative Risk Ratios Indicative of Overrepresentation and Underrepresentation

Placement Category	1999	2000	2001	2002	2003	2004	2005	2006
General class with supplemental aids/services								
State RRR	1.06	1.02	0.62	0.71	0.55	0.52	0.77	0.80
% Districts <0.80	35.29	39.13	45.13	35.06	34.02	28.04	31.51	28.26
% Districts >1.20	9.24	6.09	2.65	1.95	3.09	3.27	3.56	3.91
Outside general class less than 21% of the day								
State RRR	0.96	0.95	0.93	1.02	1.04	1.03	1.04	1.02
% Districts <0.80	43.70	48.70	42.48	32.47	28.87	29.44	23.88	21.30
% Districts >1.20	18.49	27.83	24.78	24.68	27.32	19.63	20.55	18.70
Outside general class for at least 21% but not more than 60% of the day								
State RRR	1.17	1.19	1.34	1.41	1.42	1.46	1.48	1.49
% Districts <0.80	23.37	19.13	18.58	20.78	25.26	15.89	16.44	15.22
% Districts >1.20	46.22	59.91	51.33	44.81	41.75	47.66	61.78	39.13
Outside general class for more than 60% of the day								
State RRR	0.93	0.97	0.87	0.60	0.61	0.59	0.60	0.60
% Districts <0.80	38.67	32.17	38.05	51.30	43.30	41.59	48.40	44.78
% Districts >1.20	23.53	31.30	23.01	9.74	7.73	6.07	4.11	13.48

Note. RRR = relative risk ratio of overrepresentation or underrepresentation.

[a]Placements indicate time removed from general education to special education settings. Time spent outside of general education settings for separate language supports is not included.

DISCUSSION

The disproportionate representation of CLD students in special education has been a persistent problem, but limited research exists pertaining to students identified as ELLs. This study examined patterns and predictors of special education identification and placement of this group. The results suggest that students identified as ELLs are increasingly overrepresented in special education in this state. Whereas generalizability may be limited given certain contextual factors (e.g., state demographics and English-only legislation), this study extends the findings of previous research that found disproportionality among ELLs in select districts (Artiles et al., 2005; Valenzuela et al., 2006) and in special education generally (Samson & Lesaux, 2009). It also highlights the importance of analyzing data at multiple levels and suggests the need for further research.

Researchers have often conceptualized disproportionality along racial lines, with important policy implications (e.g., federal requirements for

state monitoring); however, issues of ELLs are typically absent from these conversations. The present results highlight the importance of considering not only race, but also language, in the discourse regarding special education equity. Whereas placements of ELLs in special education are often predicated on an understanding of the case of Latino students, the data presented here point to the need to look at ELL status specifically. Although researchers have not identified disproportionality among Latino students as problematic nationally, or in this particular state, disproportionality is problematic in some states, because of frequent underrepresentation. The present data for students identified as ELLs present a different picture, with overrepresentation demonstrated in the high-incidence categories of SLD, MIMR, and SLI as indicated by elevated risk ratios at the state level (e.g., 1.82, 1.63, and 1.30 in 2006, respectively) and in 20% to 37% of districts, even though overall special education identification did not indicate elevated risk for any of

TABLE 4

Predictors of Identification and Placement for Special Education: Correlations (r) and Standardized Coefficients (b)

Predictor	All Disabilities		SLD		SLI		MIMR		ED	
	r	B	R	b	r	b	R	B	r	b
District size	−0.13	−0.02	0.12	0	0.11	0.03	0.25*	0.22	0.01	0.04
Student-teacher ratio	−0.16	−0.06	−0.12	−0.03	0.09	0.05	0.16	0.10	0.30*	0.32
% Teachers ESL-cert.	0.06	0.15	0.03	0.10	−0.12	−0.06	−0.01	0.10	0	0.07
% Teachers CLD	−0.08	0.09	−0.10	0.02	−0.09	0.07	−0.01	0.20	−0.07	0.24
% ELL students	−0.21*	−0.38	−0.14*	−0.22	−0.19*	−0.10	−0.06	0.19	−0.10	−0.01
% minority students	−0.14	−0.26	−0.13	−0.28	−0.15	0.10	−0.03	0.21	−0.16	−0.40
% free lunch	0.07	0.10	0.07	0.14	−0.29*	−0.31	−0.16	0.18	−0.12	0.10
Adjusted R^2	0.11		0.05		0.05		0.03		0.01	
f^2	0.12		0.05		0.05		0.03		0.01	

Predictor	General Class		Removed <21%		Removed 21%-60%		Removed >60%	
	r	B	r	b	r	B	r	b
District size	−0.10	−0.07	0.01	0.01	0.05	0.09	0.09	0.04
Student-teacher ratio	0.29	0.33	−0.06	−0.06	−0.01	0.02	0.12	0.08
% Teachers ESL-cert.	0.09	−0.01	0.30*	0.36	−0.01	−0.01	−0.04	−0.05
% Teachers CLD	0.02	−0.20	−0.04	0.04	−0.06	−0.10	0.13	0.14
% ELL students	0.05	−0.18	−0.05	−0.10	−0.01	−0.05	0.06	0.06
% minority students	0.15	0.31	−0.05	−0.11	−0.02	−0.04	0.08	0.08
% free lunch	0.19	0.22	−0.03	−0.01	0.04	0.19	−0.06	−0.20
Adjusted R^2	0.09		0.08		−0.03		0	
f^2	0.10		0.09		0		0	

Note. SLD = specific learning disability; SLI = speech-language impairment; MIMR = mild mental retardation; ED = emotional disability; ESL-cert. = English-as-a-second-language certified; CLD = culturally and linguistically diverse; ELL = English language learner. The category "free lunch" includes students qualifying for free or reduced-price lunch.
*$p < .01$.

the years examined at the state level. In the SLI category in particular, students identified as ELLs went from being 30% less likely to be identified in 1999 to 30% more likely in 2006. Moreover, in the SLD and MIMR categories, students went from being 24% to 30% more likely to be identified in 1999 to 82% and 63% more likely in 2006, respectively. Of note is that students identified as ELLs were rarely identified as ED. Several scholars have noted the low rate of ED identification for all students relative to the incidence of childhood psychiatric disorders (Osher et al., 2004) and called for greater attention to emotional and behavioral difficulties in schools. These results differ from earlier research, which found

students identified as ELLs to be overrepresented in all of the high-incidence categories, including ED (Valenzuela et al., 2006), although this research examined identification in a single district only.

These results also suggest that the district factors predicting disproportionality of ELLs differ from those predicting disproportionality of racial minority students. Whereas research on the structural factors that predict racial disproportionality have suggested the importance of student and teacher demographics and resource availability (e.g., human resources, teacher training, and community poverty), these factors were generally weak predictors of disproportionality among

ELLs, pointing to the need to explore other factors that may be related to this problem.

CONTEXT AND LIMITATIONS

This study, coupled with emerging research that indicates that many ELLs may be inappropriately identified for special education without adequate consideration of disability eligibility criteria or the influence of cultural, linguistic, and experiential factors (e.g., Liu, Ortiz, Wilkinson, Robertson, & Kushner, 2008; Wilkinson, Ortiz, Robertson, & Kushner, 2006), is a cause for concern. However, one limitation of this type of work is that although it is illuminating to examine disparities in patterns of identification and placement, these analyses do not address whether the identification and services provided are valid in general where disproportionality is observed, or where parity is demonstrated (i.e., risk ratios in the acceptable range). It is inappropriate to assume that disproportionality alone, or the lack thereof, is indicative of the adequacy of the practices occurring in either general or special education. Ultimately, it is the validity of the practices that is the criterion for determining the appropriateness of identification and the services provided to any student or group of students (Rueda & Windmueller, 2006). Disproportionality is problematic because of the possibility that students are receiving inappropriate labels and services. If the validity of educational decisions can be ensured, relative risk of identification for special education eligibility would be less of a concern because the assumption that students were receiving inappropriate services would be bypassed.

A primary limitation of this study is its reliance on district data from a state department of education, which includes aggregation of data across schools and districts and inconsistent reporting, and does not allow a more fine-grained analysis (e.g., disentangling country-of-origin, linguistic status, and race). In addition, state and district instruments used to identify ELLs varied throughout the years sampled, and it is not known if this influenced special education identification by influencing the students identified as ELLs. The sample included only public districts reporting enrollment data for both students identified as ELLs and those identified as White,

which was not mandated by the state. Consequently, there was some degree of variation in the districts included in the sample from year to year, and the sample only captured a proportion of all districts and students in the state, ranging from 72% in 1999 to 87% in 2006. Risk ratios could be calculated only for districts in which students identified as White were identified in the target category because their risk served as the denominator in the risk ratio. Such risk ratios were not obtained for every district. For instance, the overall proportion of districts identifying any students as ED is low compared to the other high-incidence categories, and even fewer identify students identified as ELLs as ED. It is possible that the districts that failed to report this data may have differed in some substantive way from the districts reporting.

> *If the validity of educational decisions can be ensured, relative risk of identification for special education eligibility would be less of a concern because the assumption that students were receiving inappropriate services would be bypassed.*

These factors may be related to the variability in risk ratios in some way and may lead to an inaccurate representation of the relationships between the outcomes and predictors examined here. Because these data are reflective of a single state, generalizability may be limited by characteristics of the region and the influence of state policies (e.g., English-only legislation). Here, it is possible that the state's English-only legislation might have affected special education rates for students identified as ELLs; such a possibility is suggested by the year-to-year changes in relative risk although causality cannot be shown. Given that nearly a third of students identified as ELLs are affected by such policies, it is critical for this research to take place. As noted in earlier work (e.g., Zehler et al., 2003), considerable variability exists in special education identification for this population.

Although this study could not eliminate the possibility of overlap between White and ELL students, it is probably negligible given the racial and linguistic makeup of the state's ELL population. Considering that the majority of the state's ELLs speak Spanish and are reported to be of Mexican nationality, most are also likely to be ethnic minorities; and only a small percentage would be classified as both ELL and White. In the interest of using White as the comparison group, following the rationale of Artiles and colleagues (2005) and because the assumptions behind the discourse around disproportionate representation of culturally *and linguistically* diverse students are grounded in implicit and explicit comparisons to White students' educational opportunities and outcomes (Artiles & Bal, 2008), this limitation was deemed reasonable and consistent with the theoretical grounding of the research.

Nevertheless, the state's educational system, with its high proportion of students identified as ELLs and its unique English-only policy, provides a rich context for the study of disproportionality for this group. Moreover, earlier studies examined only select districts in a few states (Artiles et al., 2005; Valenzuela et al., 2006), whereas this study examines patterns across multiple districts in a state. This study is an important next step in the research given that this type of work is constrained by the fact that many educational agencies do not have the data management systems in place to support such research, and ELL status cannot be further disaggregated by race/ethnicity, native language, language proficiency levels, level of support, and other factors, to better understand variations in the educational experiences of students identified as ELLs. There is a need to examine how specific characteristics (e.g., language proficiency) and experiences (e.g., enrollment in bilingual versus English-only programming) influence patterns of special education identification, which was impossible with the present data.

IMPLICATIONS FOR RESEARCH AND PRACTICE

The Need to Examine Patterns at Multiple Levels. This study is important given the limited research on this particular topic, and it emphasizes the need for future studies regarding treatment and outcomes for students identified as ELLs in special education. The need for future analyses of representation at the various levels (e.g., national, state, district, school) is underscored by the results, as patterns differ from one level to another. Analysis at only one level can obscure or overlook problematic trends at others. In this study, overrepresentation in special education did not appear to be particularly problematic at the state level, but district-level analysis showed that an increasingly large proportion of districts had risk ratios indicative of disparity. What is more, state-level figures can mask the much higher risk ratios in many districts throughout the state. Educational administrators should analyze identification and placement data at all levels of their systems, categories, and placement options, and for students identified as ELLs, as well as racial minorities, to identify potential problems within general and special education. Such analysis is not mandated, but it can provide valuable data to inform consideration of systemic or programmatic capacity to meet the educational needs of CLD students.

Examination of disproportionality data is critical because it allows researchers and practitioners to establish baselines and methods for monitoring progress in efforts geared towards reducing disparity, in addition to supporting systems change efforts (Skiba et al., 2008). The primary method used in this study, the relative risk ratio, is common in the disproportionality literature and in state practices for meeting the requirements of special education law (Sullivan et al., 2008). Comparability in the methodology used in different contexts and at various levels of analysis will allow for comparison of findings, something that has been difficult because of the range of calculations used in the past. Educators should select methods and criteria that allow for earnest consideration of equity concerns involved in disproportionality.

Consideration of the Multitude of Factors Influencing Special Education Patterns. Given the high proportion of ELLs who struggle academically, it is unlikely that most have educational disabilities; instead, it is necessary to effectively distinguish the sources of students' difficulties by examining the interaction among structural forces, learning

conditions, and learner characteristics (Lesaux, 2006). It is necessary to investigate the extent to which language support, preservice training, and professional development contribute to identification and placement and patterns of disproportionality at various levels of educational systems, given the potential effect of these factors on students' educational experiences.

For instance, Keller-Allen (2006) reported that ELL overrepresentation was associated with decreased language support, as noted by Artiles and colleagues (2005). These findings support the assumption that special education may be inappropriately used to remedy the decreased support created by the lack of language programming, in that increasing relative risk was found following the passage of English-only legislation. Given that most teachers feel unprepared to teach ELLs (National Center for Educational Statistics, 2000), such a trend is not surprising. The transition from bilingual programs to general education classes is especially problematic for students identified as ELLs because they are likely to be taught by inexperienced teachers, are prone to experience declines in academic performance, and are more likely to be referred to special education (Case & Taylor, 2005; Harry & Klingner, 2006). Educators must be vigilant against using special education as a fall-back option when appropriate language support, instruction, and curriculum are not provided; such use of services is not the intent of special education and can be detrimental to the students. Instead, educators need to explore programmatic changes.

Further research is needed to understand the implications of educational policies, such as English-only educational policies and federal legislation, for the special education identification and placement of students identified as ELLs. In particular, how do such policies affect school climate and the decision-making processes and outcomes that result in special education eligibility? Does the restricted range of educational options for students identified as ELLs contribute to special education referrals? How do the assumptions about language acquisition and learning inherent in the legislation contribute to the potential misidentification of ELLs as having a disability through the mediation of instructional, referral, and assessment decisions?

Additional analyses are needed to understand the factors that contribute to patterns of disproportionality. More sophisticated methodologies and research designs are needed to understand the relationships and interactions among student factors, practices, local contextual and structural factors, and systemic factors as they contribute to disparate opportunities for and treatment of students identified as ELLs, and how this contributes to inappropriate identification and placement in special education. Disproportionality is a complex problem that must be approached as such. Given its basis in long-standing inequity, and its roots in cultural and institutional practices, the multidimensionality of this problem is to be expected. Research must attend to the factors in general education systems that contribute to disproportionality, as it is not a problem inherent in the special education system, but rather it is a product of education as a broader cultural practice.

The findings in this study, as well as the literature documenting flaws in the referral and identification processes (e.g., Harry & Klingner, 2006), indicate a pressing need to examine professional practices affecting these students. Policies should ensure that all students have access to culturally and linguistically appropriate pedagogy and curricula that support their academic development, including access to evidence-based practices in instruction, intervention, and assessment (Osher et al., 2004). To the extent that this is not happening, the repercussions for disproportionality must be explored.

It will be beneficial to examine the potential relationships between various facets of universal preventative efforts, instruction, curriculum, prereferral interventions, psychoeducational evaluations, and eligibility determination processes as they relate to patterns of overrepresentation and underrepresentation for students identified as ELLs in special education, particularly given increased emphasis on response to intervention models as a means of reducing disproportionality (e.g., Lesaux, 2006; Linan-Thompson, Cirino, & Vaughn, 2007). Researchers have yet to explore the influence of systemic factors, such as quality of curriculum and instruction, availability of programming and resources, and teacher training, as they may relate to differential rates of referral and

identification for special education (Skiba et al., 2008).

In sum, this study highlighted the need for future research examining the disproportionality of students identified as ELLs. The persistent disproportionate representation of students who are CLD in special education is a complex problem that is related to the construction of difference, educational opportunity, and local context of policy and practice. For many students, special education identification and placement is appropriate and indeed necessary; however, for others, it may be the result of factors outside the student and unrelated to the presence of disability per se. Evidence of disproportionality should be treated as indicative of underlying problems across and within multiple levels of the system (Rueda & Windmueller, 2006). Where data reveal potentially problematic patterns of identification and placement, researchers should consider contextual and systemic factors as potentially contributing to the misidentification of students.

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