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Aydin Bal, PhD¹, Amanda L. Sullivan, PhD²,
and John Harper, MS¹

Abstract

The disproportionate representation of students from culturally and linguistically diverse backgrounds in special education programs is a complex issue that has long troubled practitioners, educational leaders, and researchers. This article reports on a mixed-method collaborative case analysis that examined local patterns of disproportionality in an urban school district and the district's systemic transformation effort to address disproportionality. In a close collaboration with the district's special education leadership team, we utilized student-level quantitative data from 2006 through 2010 to examine temporal patterns of disproportionality along with qualitative data on the leadership team's perceptions and actions. Our analyses showed that risk of overidentification was greatest for African American, American Indian, low-income, and male students. The study illustrates a method of collaborative analysis and the importance of such analyses for understanding and addressing variously localized patterns of disproportionality. The findings contribute to the literature on disproportionality and inform systemic change efforts in diverse sociocultural contexts of urban school districts.

Keywords

disproportionality, urban school district, mixed methodology, systemic transformation

One of the more profound lessons learned from the findings was that disproportionality in our district is an extremely multifaceted issue to understand and address, one that requires comprehensive and multilevel analyses and interventions simultaneously.

Adam Rutherford, Flen School District
(see Note 1) Executive Director of Educational Services

Researchers and practitioners have discussed disproportionate representation of students from culturally and linguistically diverse (CLD) backgrounds (see Note 2) in special education programs for many years even before the enactment of P.L. 94-142, the Education for All Handicapped Children Act of 1975, now the Individuals With Disabilities Education Act (IDEA; Dunn, 1968). Nevertheless, the uneven representation of students from different racial and linguistic groups in special education remains a hotly debated topic nationally and internationally (Artiles & Bal, 2008) and in many school systems is a seemingly intractable problem. Special education disproportionality is “the extent to which membership in a given . . . group affects the probability of being placed in a specific special education

disability category” (Oswald, Coutinho, Best, & Singh, 1999, p. 198). It reflects not only differential probability of identification, but also broad sociohistorical issues of equity and social stratification by race, language, class, and ability (Skiba et al., 2008; Sullivan & Artiles, 2011). Thus, an individual's likelihood of disability identification is not only determined by intrapersonal factors (e.g., neurological and physical functioning) but also by interpersonal social—interactional and institutional—factors (e.g., the perceptions and behaviors of educators, quality of educational opportunities, and school culture). As such, students who do not meet the criteria for special education identification may be identified inappropriately as having a disability, whereas other students who are in need of special education services may not receive such services. More simply,

¹University of Wisconsin–Madison, USA

²University of Minnesota, Twin Cities, USA

Corresponding Author:

Aydin Bal, Department of Rehabilitation Psychology and Special Education, University of Wisconsin–Madison, Education Building, 1000 Bascom Mall, Room 403, Madison, WI, 53706–1326, USA.
Email: abal@wisc.edu

special education disabilities are not identified based on students' needs alone. Instead, as demonstrated in early research, special education identification is idiosyncratic to school systems (Singer, Palfrey, Butler, & Walker, 1989) and often occurs in the absence of—or in direct contradiction to—the requisite data (Ysseldyke, Algozzine, Richey, & Graden, 1982).

Historically, students from CLD backgrounds have been overidentified in the high-incidence disability categories (e.g., specific learning disability [SLD], intellectual disability [ID], and emotional disturbance [ED]; see Note 3), particularly African American and American Indian students relative to White (see Note 4) students (Coutinho, Oswald, & Best, 2002; Donovan & Cross, 2002; Zhang & Katsiyannis, 2002). Hispanic students and English language learners (ELLs), who are the fastest growing student populations in schools, are, on an average, underrepresented nationally, yet both groups are frequently over- and underrepresented at state and district levels to varying degrees (Artiles, Rueda, Salazar, & Higuera, 2005; Sullivan, 2011). Furthermore, on average, Asian American students are grossly underidentified for special education services (Donovan & Cross, 2002), though more recent research indicates that they are at elevated risk for autism (Sullivan, 2013).

Donovan and Cross (2002) described such disproportionality as the “paradox of special education” (p. 20). Although special education is meant to help students with disabilities by providing additional services and resources, the identification process may also stigmatize students, segregate them from their peers, expose them to low expectations and a weak curriculum, and limit their access to general education curriculum and depress post-school outcomes such as employment options and access to higher education (Harry & Klingner, 2006). In light of these potentially negative outcomes, concern about schools inappropriately identifying students for special education has long spurred advocacy and policy. The 1997 and 2004 reauthorizations of IDEA mandated that states and school districts report to the Department of Education the race/ethnicity of students in special education; determine whether there is significant disproportionality; assess the possible contribution of inappropriate policies, procedures, and practices to any identified disproportionality; implement systemic efforts to eliminate disparities; and, where significant disproportionality was found, allocate 15% of federal special education funding for early intervening services to students without disabilities. This policy and other initiatives to reduce disproportionality reflect the widespread acknowledgment of the role of systemic factors, including policies and practices, in disability identification.

Despite these legal mandates, disproportionality remains common in school systems throughout the United States, and the full complexity of its interacting institutional and

sociocultural determinants is not fully understood (Waitoller, Artiles, & Cheney, 2010). The existing research suggests that disproportionality is a multiply mediated educational phenomenon that results from the interactions of larger social and structural forces (e.g., race, class, access to high quality teachers), education policies (e.g., zero tolerance or English-only legislation), biases in referral and evaluations processes, and local school cultures (e.g., racialization of school discipline or culture of referral; Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Klingner et al., 2005; Skiba et al., 2008).

In a systematic review of the literature, Waitoller and colleagues (2010) asserted that disproportionality research insufficiently explained the complex causes of and potential solutions to disproportionality. The majority of disproportionality studies relied on aggregated state-level data, often focusing on single racial/ethnic categories and yielding contradicting findings on the relations between disproportionality and sociodemographic factors (e.g., family income level, language status, and demographic composition of states). Furthermore, studies rarely utilized student or school data or designs sensitive to the variations in special education procedures between and within districts or states, thus precluding interpretations of causality relevant to policy makers, administrators, and practitioners (Sullivan & Bal, 2013; Waitoller et al., 2010). Moreover, research based on state-level data often lacks practical application for key stakeholders, namely educational leaders in school districts because such studies do not lend themselves to analyses of malleable factors related to disproportionality. This underscores the need for empirical research on the specific socio-historical contexts of districts (Artiles et al., 2005; Sullivan, 2011). Prominent disproportionality scholars have suggested that comprehensive situated analyses of local configurations of individual and structural factors, including systemic change efforts, are needed to understand disproportionality and foster sustainable, effective, and equitable educational reform in local educational agencies (LEAs)-school districts (Artiles, 2009; Harry & Klingner, 2006; Skiba et al., 2008). Situated analyses in education research entail context-bounded notion of activities and outcomes in an education system (e.g., classroom, schools, or LEAs). Situated analyses stress “the emergent, contingent nature of human activity, the way activity grows directly out of the particularities of a given situation” (Nardi, 1996, p. 35). However, there is a paucity of such LEA-level situated investigations of disproportionality (Waitoller et al., 2010).

A Situated Case Analysis

To address this gap in the literature, we designed a *collaborative mixed-method study* of disproportionality where we, the researchers, worked closely with a leadership team of Flen School District, an urban LEA in the state of Wisconsin,

to conduct a situated case analysis of temporal patterns of disproportionality in the district. The Flen School District Educational Services Leadership Team (hereinafter referred to as the Leadership Team) participated in this research study to examine their practices and long-held assumptions about disproportionality. After many years of efforts to eliminate disproportionality with little change, the Leadership Team sought a deeper analysis via a collaborative partnership with a university.

Throughout the study, we had regular meetings with the Executive Director over special education and Section 504 services, Adam Rutherford, and the Leadership Team. Mr. Rutherford was a participant researcher in our study. The Leadership Team included seven members from two divisions over special education and Limited English Proficiency (LEP) services. The mission of this team was working in collaboration with parents, students, and community providers to ensure an inclusive quality education for all ELLs and students with disabilities.

The present study was the first phase of an intervention study of disproportionality in the district that came out of close collaboration between the Wisconsin Department of Public Instruction (WDPI), Flen School District, and the first author to address enduring educational disparities in Wisconsin, which are some of the largest in the nation (Vanneman, Hamilton, Baldwin Anderson, & Rahman 2009). The purpose of the study was twofold: (a) to examine the topography of disproportionality in Flen School District and (b) to study how quantitative analyses of disproportionality informed the Leadership Team's understanding of disproportionality and its ongoing systemic effort to address disproportionality.

Method

Design

The study used a collaborative mixed-methods design (Mertens, 2010). Collaborative mixed methods are gaining increasing attention in social and behavioral sciences (Shulha & Wilson, 2003). In education research, collaborative research methodologies (e.g., social design experiments and participatory action research) have taken hold as an effective way to actively engage practitioners and people with disabilities in the processes of problem definition, analysis, and solution (e.g., Buettgen et al., 2012; Engeström & Sannino, 2010; Gutiérrez & Vossoughi, 2010; Wallerstein & Duran, 2003). We used "a cyclical model in which community members are brought into the research process from the beginning and throughout the process in a variety of roles" (Mertens, 2010, p. 472). The researchers and the Leadership Team designed and tailored each stage of this study based on the Leadership Team's needs and interests. We conducted descriptive analyses of student-level factors

to determine the extent of disproportionality over time. Then, the Leadership Team interpreted the patterns of disproportionality to facilitate *praxis*, a continuous cycle of collective reflection and action upon practices and perspectives about disproportionality to transform those practices and perspectives (Freire, 2000).

Data Source and Sample

We utilized both quantitative data on student enrollment and qualitative data from meetings, participant observations, document review, and communications with the Leadership Team. Data were obtained through an institutional agreement with the district. Qualitative data were drawn from meeting notes, participant observations, and e-mail communications. Quantitative data on demographic characteristics and special education identification were obtained from the district's information system for all students enrolled in the 2006, 2008, and 2010 academic years. No identifying information (i.e., names, student identification numbers) was included. The total enrollment was 24,218, 24,268, and 24,294 across these three study years. The general characteristics of the sample are provided in Table 1. To describe the sample, we provided for each year (a) the number of students in each subgroup and (b) the proportion of the sample in that subgroup. The special education categories of interest in this study were the four high-incidence disability categories (SLD, ED, ID, and Other Health Impairment [OHI]) as well as low-incidence (LI) categories, including autism, hearing impairments, multiple disabilities, orthopedic impairments, traumatic brain injury, and visual impairments. We have included both high-incidence and LI categories to provide a more comprehensive analysis of disproportionality.

Study Context

Wisconsin is home to more than 5.6 million people (Wisconsin Department of Administration [WDA], 2010), the vast majority of whom are White (89%). Approximately 5.5% of residents are African American, 3.5% are Hispanic, 1.7% Asian, and 0.9% are American Indian. Approximately 13% of Wisconsin residents lived in households with annual incomes below the federal poverty level (Wisconsin Department of Health Services, 2012).

The state enrolls more than 870,000 students in public education (WDPI, 2011). Wisconsin is unique in its governance model in that the superintendent is a nonpartisan constitutional officer. Flen School District serves the second largest county in the state with more than 426,000 residents, of whom approximately 85% live in urban areas (WDA, 2010). The district encompasses 32 elementary schools, 12

Table 1. Characteristics of the Sample by Academic Year—Number and Percentage (in Parentheses).

Year	2006	2008	2010
Total	24,218	24,268	24,294
Male	12,271 (50.7)	12,347 (50.9)	12,417 (51.1)
White	13,563 (56.0)	12,651 (52.1)	12,651 (50.3)
African American	5,145 (21.2)	5,596 (23.1)	5,596 (23.6)
Hispanic	2,804 (11.6)	3,303 (13.6)	3,303 (14.8)
Asian	2,561 (10.6)	2,547 (10.5)	2,547 (10.5)
American Indian	145 (0.6)	171 (0.7)	171 (0.8)
Limited English Proficient	3,223 (13.3)	3,804 (15.7)	3,804 (15.8)
FRL	9,360 (38.6)	10,357 (42.7)	10,357 (53.1)
All disability categories	3,925 (16.2)	3,746 (15.4)	3,730 (15.4)
Specific learning disability	1,474 (6.1)	1,244 (5.1)	1,104 (4.5)
Intellectual disability	253 (1.0)	260 (1.1)	259 (1.1)
Emotional disturbance	558 (2.3)	568 (2.3)	565 (2.3)
Other health impairments	451 (1.9)	485 (2.0)	556 (2.3)
Low-incidence disabilities	427 (1.8)	458 (1.9)	518 (2.1)
Speech or language impairment	763 (3.1)	750 (3.1)	746 (3.1)
Mean age	11.26	11.14	10.99

Note. FRL = Free or Reduced-price Lunch.

middle schools, and 4 comprehensive high schools. Among the students, half are racial minorities and 51% are considered low income (Kozleski, Sullivan, & Waitoller, 2008). In the past decade, the enrollment of students from CLD backgrounds doubled such that more than 24% were racial minorities and approximately 17.7% of students who were identified as LEP, most of whom spoke either Spanish or Hmong.

Disproportionality has been a persistent problem in Wisconsin's schools: Historically, African American and American Indian students have had greater relative risk for identification in the high-incidence categories, restrictive placements, and exclusionary discipline than in many other states (Kozleski et al., 2008). For instance, Bal, Betters-Bubon, and Fish (2013) found that in the 2010–2011 school year, African American students were 1.26 times more likely to be identified with ED compared with their White

counterparts. Relative risk for ED identification in American Indian students was 1.53 in the same school year (Bal et al., 2013). In Wisconsin, Asian students have been underrepresented in all disability categories, whereas Hispanic students have been nearly equally represented in high-incidence categories except ED (Kozleski et al., 2008). Hispanic students have been underrepresented within ED category (Bal et al., 2013; Kozleski et al., 2008). At the state level, there have been multiple efforts to reduce such disparities. However, those initiatives have been fragmented and had little impact on state-level indicators of disproportionality, as indicated by relatively stable or increasing relative risk across racial groups and disability categories (see Note 5).

Disproportionality has also long been a major equity concern in Flen School District. During the 1998–1999 school year, a dramatic increase in the percentage of students with disabilities from 12.68% in 1997 to 14.56% in 1998 alarmed the Flen leadership and public (Kozleski et al., 2008). Special education referral data showed the racial and linguistic disparities, which became a focus of the Flen educational services leadership staff (Kozleski et al., 2008). The accelerating rate of disability identification coupled with the steady increase in CLD students in the district led administrators to implement a comprehensive multi-year systemic change plan. In 1999, the responsibility of supervising initial special education eligibility determinations was moved from school teams to centrally based program support teachers. Their goal was that a group of “neutral” highly trained evaluators would be able to guide evaluation teams in appropriately identifying students with disabilities from those who did not. Next, the existing multidisciplinary student support teams, whose role was to assist staff in identifying interventions and supports for struggling students, were re-configured as a Student Support and Intervention Team (SSIT) at each school. Finally, the district developed an electronic intervention information system, the Student Intervention and Monitoring System, that became the primary mechanism of the SSITs for documenting students' responses to intervention and generated state-required reports.

Descriptive Analyses of Disproportionality

We analyzed quantitative data using SPSS software (IBM, 2010). We estimated the *risk indices* [RIs], or local prevalence, of special education identification overall and by disability category for each sociodemographic. The RI provides the proportion of a group identified with a disability (e.g., the proportion of White students identified with any special needs). The RI was calculated for each racial/ethnic group, LEP and English-proficient students, males and females, and students with and without Free or Reduced-Price Lunch (FRL), homeless, and immigrant status. The RI is represented by the following equation:

$$RI = \frac{\text{No. of students in X group in Y disability category}}{\text{No. of students in X group in the student population}}$$

In addition, we estimated relative risk ratios (RRRs) to determine minority groups' relative risk of identification for special education compared with a pre-selected referent group. The RRR is a ratio of the RIs in two groups and is described in the equation below:

$$RRR = \frac{\frac{\text{No. of students in group X in disability category Z}}{\text{No. of students group X in the student population}}}{\frac{\text{No. of group Y in disability category Z}}{\text{No. of group Y in the student population}}} = \frac{\text{Group X RI}}{\text{Group Y RI}}$$

RRR indicates the effect of the risk factor (e.g., Hispanic ethnic category) relative to the baseline risk of the referent group, and is, therefore, not an indicator of absolute risk (Mason, Scott, Chapman, & Tu, 2000). In this context, the RRR shows one group's likelihood of identification in a given disability category relative to White students' risk in the same category. A RRR of 1 indicates comparable risk between groups. Whereas values greater than 1 indicate greater risk (e.g., a value of 3 indicates that the racial minority group is 3 times as likely to be identified than their White counterparts), values less than 1 indicate underidentification, relative to the comparison group (e.g., a value of 0.5 indicates that the minority group is half as likely to be identified). The RRR was evaluated for overall special education identification and identification in the specific disability categories of SLD, ED, ID, and OHI. In addition, relative risk for the LI category was calculated.

For the racial/ethnic group calculations, we selected White students as the referent based on the broader concerns for educational equity, in which Whites are often the implicit and/or explicit comparison group (Coutinho & Oswald, 2000), in keeping with the following rationale:

- (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. (Artiles et al., 2005, p. 289)

Interpretative Analysis

We followed Frederick Erickson's (1986) *Interpretative Research* methodology for collecting and analyzing qualitative data to identify and document heuristic processes of collaboration and the Leadership Team's perceptions and

key activities related to disproportionality. Our analysis of qualitative data attempted to identify (a) conceptual assertions and (b) evidence substantiating the assertions. By reading/listening to the data mass repeatedly and holistically, we developed preliminary hypotheses. The hypotheses were tested by searching for confirming and disconfirming evidence. The focus was on unifying features, which lead to *key linkages*. The linked themes were put together and reorganized into final assertions. An assertion refers to a general finding statement from the Leadership Team's interpretation of disproportionality data and district-wide activities targeting disproportionality. A written report of quantitative analyses was sent to Mr. Rutherford. We asked the Leadership Team to review the findings and to answer the following three questions: (a) *What are your interpretations of the findings in relation to your district's long-term struggle and effort to address disproportionality?* (b) *How can the findings inform your efforts?* and (c) *What are the benefits and challenges collaborating with a university-based research team in this study?* In interpretative analysis of these data, our goal was to provide an emic perspective by privileging the Leadership Team's perspective and real life experiences over researchers' a priori assumptions. To maintain the evidentiary adequacy, immersion, and member checking (Erickson, 1986; Lincoln & Guba, 1985), the researchers had approximately 15 meetings with Mr. Rutherford and the Leadership Team and frequently communicated with Mr. Rutherford via e-mail and phone throughout the study. The first author attended the meetings as a participant observant and took field notes and memos. Mr. Rutherford provided the team's responses to the disproportionality data in writing. The first author and Mr. Rutherford analyzed the Leadership Team's responses and the findings. Our communication with Mr. Rutherford in-person or via e-mail served as a member checking process, as he clarified the Leadership Team's responses and assisted with the validity of the researchers' descriptions and interpretations. Mr. Rutherford joined in this article as a co-author.

Findings and Discussion

In this section, we describe our findings on risk of special education placement in the specific disability categories. We then discuss the Leadership Team's reflection on the descriptive analyses of disproportionality and resulting actions through narrative description of the meetings and illustrative quotes.

Local Patterns of Disproportionality

Initial descriptive analyses examined the risk of identification across demographic factors for disability categories between 2006 and 2010. Table 2 provides the RIs by

Table 2. Risk Indices for Placement in Special Education (All Disability Categories) and the Specific Disability Categories by Demographics Status at the District Level for Academic Years 2006, 2008, and 2010.

Variable	All Disability Categories			SLD			ID			ED			OHI			LI		
	2006	2008	2010	2006	2008	2010	2006	2008	2010	2006	2008	2010	2006	2008	2010	2006	2008	2010
White	13.8	13.5	12.8	4.6	3.8	3.1	0.8	0.8	0.7	1.8	1.8	1.6	1.9	2.1	2.1	1.9	2.3	2.6
African American	29.0	26.1	26.2	12.4	10.4	9.5	2.2	2.3	2.1	5.6	5.4	5.4	3.1	3.1	3.9	1.6	1.3	1.7
Hispanic	11.2	10.5	12.1	4.2	3.3	3.3	0.5	0.5	0.7	0.5	0.8	1.1	1.1	1.6	1.6	1.3	1.6	1.5
Asian	8.4	7.5	7.7	3.2	2.6	2	0.6	0.5	0.7	0.2	0.2	0.2	0.2	0.6	4.1	1.8	1.4	1.7
American Indian	24.8	22.8	20.8	8.3	6.4	5.1	1.4	2.3	2.5	7.6	5.8	5.1	3.4	4.1	2.3	0.7	0.6	2.5
LEP	10.1	9.3	11.3	4.3	3.4	3.4	0.7	0.6	0.9	0.2	0.3	0.4	0.5	0.7	1.1	1.2	1.2	1.6
Non-LEP	17.1	16.6	16.1	6.4	5.4	4.8	1.1	1.2	1.1	2.6	2.7	2.7	2.1	2.2	2.5	1.8	2.0	2.2
FRL	22.6	20.8	20.6	9.1	7.5	7.0	1.7	1.8	1.7	4.0	4.0	3.7	2.3	2.3	2.9	1.6	1.6	2.4
Non-FRL	12.2	11.5	10.7	4.2	3.3	2.4	0.6	0.6	0.5	1.3	1.0	1.1	1.6	1.7	1.8	1.9	2.1	1.8
Male	20.4	19.4	19.6	7.4	6.0	5.2	1.0	1.1	1.1	3.1	3.2	3.1	2.6	2.8	3.2	2.6	2.8	3.1
Female	11.9	11.3	10.9	4.7	4.3	3.8	1.1	1.1	1.0	1.5	1.5	1.5	1.1	1.2	1.4	0.9	1.0	1.1

Note. Risk indices describe the proportion of the given group in the disability category (e.g., 13.8% of White students are identified with any disability). LEP = Limited English Proficient; FRL = Free or Reduced-price Lunch; SLD = specific learning disability; ID = intellectual disability; ED = emotional disturbance; OHI = other health impairment; LI = low-incidence disabilities.

sociodemographic group, for all disabilities combined (e.g., 13.8% of White students were identified with any disability in 2006, computed as a ratio of the total White population to the number of White students with any disability; that is, $1,872 / 13,563 = 13.8\%$) and by specific disability category.

Among students identified with disabilities, risk was highest for those who were African American, American Indian, receiving FRL, and male. Between 2006 and 2010, African American students were more than twice as likely as White students to be identified for special education. American Indian students were 2 to 3 times more likely to receive special education services than their White peers. Furthermore, students with FRL status were 85.2% to 92.5% more likely to receive services than students without FRL status. Finally, although nearly 1 in 5 (19.4%–20.4%) males received special education each year, only 1 in 10 (10.9%–11.9%) female students did, resulting in a relative risk of 1.71 to 1.80 for male students. Male students were more likely to be identified in the LI categories, as were students without FRL status relative to students with FRL status, and White students relative to students from CLD backgrounds. Across the high-incidence categories, however, African American, American Indian, and students with FRL status were more likely to be identified. Within the SLD category, the highest risk was for African American students with 12.4% identified in 2006, 10.4% identified in 2008, and 9.5% identified in 2010. In the ID category, risk was greatest for American Indian students with 1.4% identified in 2006, 2.3% identified in 2008, and 2.5% identified in 2010. Among students identified as ED, risk was highest for American Indian and African American students across the

years. For OHI category, the risk was greatest for African American students.

Figure 1 highlights race-based relative risk. Compared with White students, African American and American Indian students had elevated relative risk in each of the high-incidence categories but not in the LI categories across all years studied. American Indian students were increasingly likely to be identified with ID between 2006 and 2010, and were most likely to be overrepresented in ID (RRR = 3.5 in 2010; that is, $2.5 / 0.7 = 3.571$) and in ED (RRR = 3.2 in 2010; that is, $5.1 / 1.6 = 3.187$). African American students were also 2 to 3 times as likely as White students to be identified for SLD, ID, and ED. However, Hispanic, Asian, and students identified as LEP were generally less likely to be identified in each of the disability categories, consistent with long-term national trends: Nationally, Hispanic, Asian, and students identified as LEP students are underrepresented in high-incidence disability categories (Donovan & Cross, 2002). In Flen School District, Hispanic students generally had *lower* RRR in the high-incidence disability categories such as in ID (RRR = 0.58 in 2010) and in ED (RRR = 0.69 in 2010). Although this might suggest that this group is subject to appropriate identification, it might also reflect inappropriate underidentification of special needs in this group that is also problematic (Bollmer, Bethel, Garrison-Mogren, & Brauen, 2007).

Overall, our descriptive analyses revealed a dynamic topography of disproportionality within this specific district. For example, American Indian students were overrepresented significantly in high-incidence disability categories, specifically in ED where they were 4 times more likely to be identified (RRR = 4.2) compared with their White counterparts in 2006 though this decreased to 3.19 in

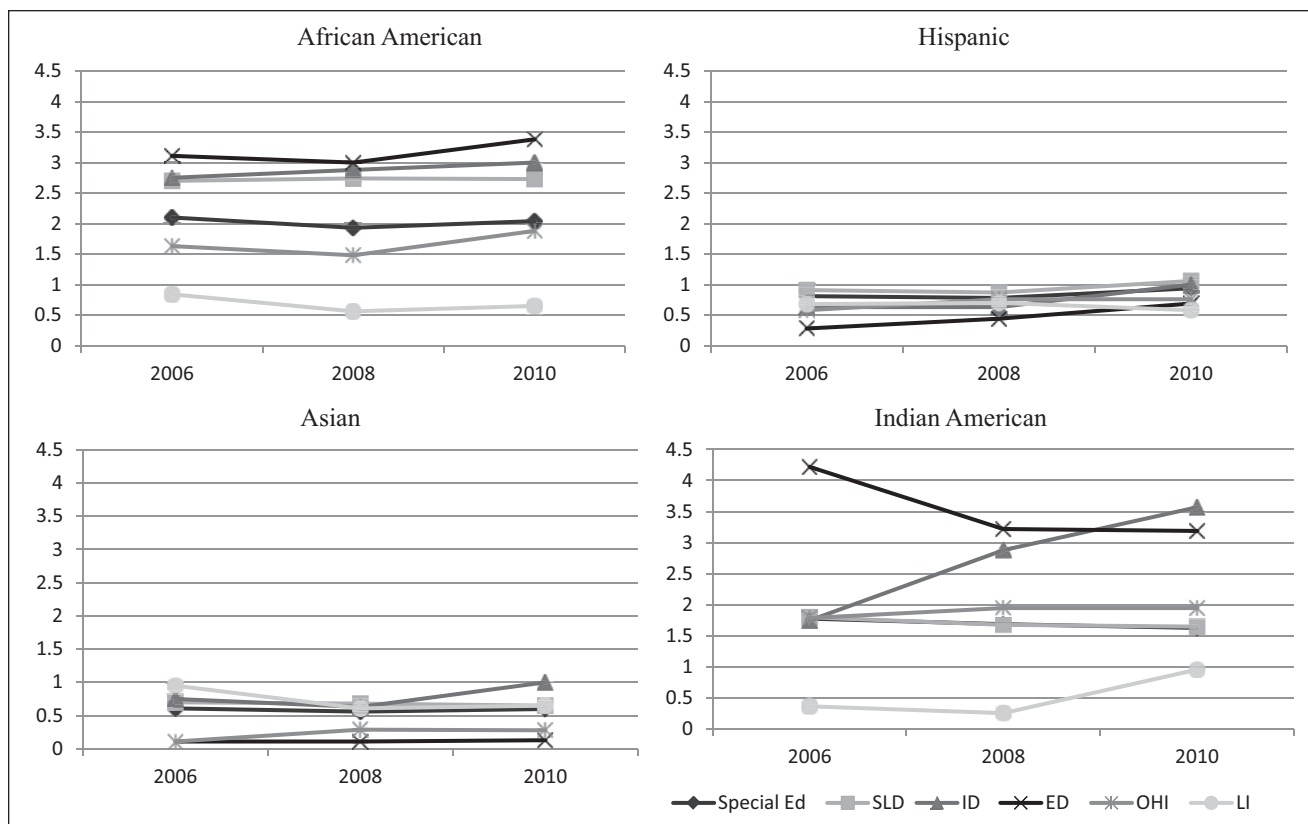


Figure 1. Relative risk ratios by racial/ethnic group across all disability categories and the five specific disability categories examined. Note. SLD = specific learning disability; ID = intellectual disability; ED = emotional disturbance; OHI = other health impairment; LI = low incidence.

2010. Although this decline could be interpreted as a positive trend, we found that during the same period American Indian students' RRR in ID category increased significantly from 1.75 to 3.57.

These descriptive analyses suggested a need for further investigations of the interactions of district-wide policies, student factors, and opportunities to learn. Based on our findings, we concur with Artiles's (2009) recommendation that "the next generation of research must contextualize the analysis of placement patterns in the policy-saturated world" (p. 35). Highlighting the potential contribution of situated analyses of sociohistorical studies on the intersections of race, ability, and learning opportunities as enacted in local educational settings, Artiles concluded "the generation of research questions that urge us to understand how educational inequalities is constructed at the intersection of macro (policy) and micro (local practices) scales through translation and contextualization processes" (p. 35). As such, below, we present the Leadership Teams' reflection on the descriptive analysis between 2006 and 2010 and the Leadership Team's resultant action plans to address disproportionality.

Contextualizing Descriptive Analyses and Facilitating Praxis

Through a critical review of the descriptive data and discussions with the researchers, the Leadership Team engaged in praxis, a deep examination of disproportionality and related practices in the district to foster change. The Leadership Team re-conceptualized disproportionality as a complex dynamic systemic problem requiring a systemic transformation effort underpinned by data-based decision making, as exemplified in this comment by Mr. Rutherford:

After reflecting upon a decade's worth of our district's disproportionality and the current data, which unfortunately demonstrated little to no progress, we realized the continuation of current thinking and practices was ineffective. In part, this research has been a catalyst for new approaches in targeted areas. While there is high correlation between poverty and disproportionality, the data suggest race is an important factor.

By acknowledging the failure of previous efforts and recognizing disproportionality as more than a matter of class and thus, more than a problem attributable to students' environmental disadvantage, the district was able to move

forward in planning organizational change. This aligns with the current literature in disproportionality studies and leadership for educational equity (Fullan, 2003; Frattura & Capper, 2007; Harry & Klingner, 2006; Heifetz & Linsky, 2002; Klingner et al., 2005). From the systemic perspective, disproportionality may be understood as a “runaway object” (Engeström, 2009, p. 305) that is partially shared by multiple activity systems: a school, families, district, and the state educational agencies. Runaway objects such as disproportionality or achievement gap are far reaching in time and space and rarely under any entity’s control; thus, demand collaboration and dialog among those activity systems (Engeström, 2009).

The district’s previous and emerging conceptualization of disproportionality reflects Heifetz and Linsky’s (2002) typology of organizational problems. *Technical problems* are those with one-dimensional and reactive responses, where the solutions can be determined through formulas, prescriptive procedures, or algorithms. The technical problems can be solved through application of existing knowledge or via consultation with experts. In contrast, *adaptive problems* cannot be solved with the current practices and knowledge base; instead, the educational system must change or adapt to achieve resolution through a process of continuous inquiry and experimentation and collaboration with other systems (Engeström & Sannino, 2010). The district formerly treated disproportionality as a technical problem. As a result, the Leadership Team concluded, the change efforts were unproductive. Educators and communities often assume simplistic explanations (e.g., family poverty or educators’ prejudices toward students from CLD backgrounds) for adaptive issues and look to administrators and consultants for technical solutions. Under such circumstances, disproportionality may be regarded as a special education problem to be resolved through highly standardized, “culturally-neutral” classification processes (e.g., students with a score <A on test B will be classified as disability C and placed in settings D).

Systemic change required to produce substantive transformation is often met with resistance from the professionals who must enact the changes (Fullan, 2003). In Flen School District, a large urban LEA with multiple and sometimes contradictory goals, practices, and ideologies, the new call for substantive change in practices and procedures confronted the dominant paradigms of educational difficulties. In particular, the critical reflection essential to adaptive change the district leadership demanded challenged the prevailing negative attitudes toward cultural and linguistic characteristics and practices of CLD students and families and highlighted the lack of culturally responsive pedagogy. Debates ensued within schools, administrative teams, and board of education meetings about how to develop successful curriculum, instructional practices (instructional core), assessments, and interventions. As Mr. Rutherford noted,

these debates resulted in agreement that critical reflection and expansive learning, initiated within the Leadership Team, were essential:

As part of this study, our district team sought to better understand the etiology of disproportionality, root causes, and contributing factors at a deeper level. Doing so we reasoned, would provide district staff with strategic advantages regarding systemic reform. The opportunity to engage in new learning and work directly with the research team was extremely fortuitous in that we could analyze data to make timely and context informed decisions.

In other words, the Leadership Team determined that adaptive solutions were necessary instead of continued reliance on purely technical solutions such as compliance activities (e.g., procedural checklists, new documentation systems, evaluation guidelines, brief professional development seminars from external experts, and other obligatory requirements). Previous district efforts focused on changing staff beliefs through the technical change activities such as professional development seminars under the assumption that this would cause practice changes necessary to improve student outcomes. As Guskey (1989) noted, however, changes in educational processes and practices such as in curriculum and assessment practices are necessary to facilitate positive and sustained student outcomes.

Engeström and Sannino (2010) asserted that the intended *outcome* of a systemic transformation is expansion or reconceptualization of the object of an activity system (e.g., disproportionality) that would be used to design locally appropriate, sustainable adaptive solutions such as new forms of division of labor or tools in understanding and addressing diverse needs, strengths, and interests of students. In expanding their conceptualization of disproportionality, the Leadership Team began to contextualize the disproportionality rates through the data on enrollment, attendance, behavior, graduation, and English proficiency scores. These analyses prompted classroom observations by the members of the Leadership Team that in turn led the Leadership Team to conclude that the district lacked an instructional core, which refers to the student-teacher dynamics, especially instructional practices and student engagement, relative to the curriculum (City, Elmore, Fiarman, & Teitel, 2009), and that this deficiency underpinned the failure of previous change efforts. Mr. Rutherford noted in one team meeting,

Without agreed upon set of instructional practices, assessments, and consistent standards-based learning outcomes, it was now more apparent why previous efforts to introduce culturally responsive teaching may have failed to make an impact. In this highly atomized system, professional learning communities could gain little to no traction as there were few, if any student learning artifacts to collaborate on.

Consequently, general education instruction became a primary focus based on the conclusion that a strong instructional core would benefit both students with and at risk for disabilities.

As a result of this inquiry process, the Leadership Team decided to be more involved in instruction by observing teaching and learning activities during instructional rounds consisting of observations, debriefing, and follow-up. As a first step, the Leadership Team and its staff participated in a comprehensive professional learning program on executive coaching to bolster administrators' presence in classrooms. Next, the Leadership Team spearheaded the adoption of a district-wide instructional framework, Response to Instruction and Intervention (RTI²) that also guided the instructional rounds. This iterative process further shaped the Leadership Teams' interpretation of student outcome data and planning for systemic transformation.

The Leadership Team's Theory of Action for Systemic Transformation

As noted above, the Leadership Team recognized that the previous initiatives were merely technical solutions (e.g., new assessments and software) even though adaptive solutions were warranted. As a result of iterative data analysis and ongoing instructional rounds, the Leadership Team engaged in a series of critical conversations leading to a new understanding of disproportionality and theory of action, or set of underlying assumptions and practices about to move toward a desired outcome. The Leadership Team's theory of action was grounded in the assumption that disproportionality was not a special education issue, but a symptom of much larger cultural, societal, and educational issues necessitating coordinated adaptive systemic transformation to improve quality of academic and behavioral opportunities for all learners.

The Leadership Team hypothesized that through improved instructional practices and student engagement, particularly via the implementation of culturally responsive pedagogies and interventions, disproportionality would be reduced. Effective culturally responsive pedagogies aimed at facilitating academic achievement, affirming dynamic cultural identities, and assisting *all* students and their teachers to develop critical perspectives that understand and challenge inequalities that are reproduced in/through schools and other social-political institutions (Ladson-Billings, 1995). The Leadership Team acknowledged that such changes were necessary:

From our perspective, disproportionality had well-established roots in the classroom. Stated differently, disproportionality is inextricably linked to widening achievement gaps, which we

believe can be overcome through exemplary teaching, culturally competent practices, and the utilization of a multi-tiered system of support. As such, the concept of disproportionality would be viewed as an issue of systemic district practices and/or current shortcomings with respect to meeting student educational needs.

The Leadership Team has adopted RTI², a multi-tiered model of prevention support, as a framework to organize and align school operations around student learning. Accordingly, the Leadership Team's theory of action centers around supporting schools as they implemented RTI² to foster high performing inclusive environments and to reduce achievement gaps and disproportionality.

Based on the emerging theory of action, the Leadership Team identified five priorities: (a) improving the instructional core and providing timely, evidence-based supports to struggling learners through the implementation of RTI², (b) redesigning the K–12th scope and sequence to align with the Common Core and College and Career Readiness Standards, (c) integrating culturally responsive curriculum and instructional practices and the five dimensions of Teaching and Learning Instructional Framework (Fink & Markholt, 2011) into core instruction, (d) implementing a kindergarten program for 4-year-olds, and (e) incorporating universal design for learning in the curriculum design and instructional delivery following Rose and Meyer (2006). Moreover, the district reallocated 15% of IDEA funding to target struggling readers in the neediest schools.

To do so, the district leadership aimed to shift special education teachers' roles from assisting individual students with disabilities to assisting the whole school in improving the accessibility of core instruction and efficacy of interventions. They also utilized student performance data to evaluate instruction. As a result of these data, the district hired reading specialists to provide high intensity interventions. Finally, the Leadership Team redesigned the school improvement process around the Data-Wise Model (Boudett, City, & Murnane, 2005). Recognizing the relations between academic and behavioral functioning, the district is in the process of adapting culturally responsive positive behavioral interventions and supports (CRPBIS) framework, a praxis-based and equity-oriented systemic transformation framework and a new methodology of systemic intervention called Learning Lab (for full description, see Bal, 2011). The first author developed the CRPBIS framework and the Learning Lab methodology based on the present study. The CRPBIS framework aims at facilitation of positive, inclusive, and democratic school cultures via ecologically valid and sustainable systemic transformations led and owned by local stakeholders (e.g., educators and families from CLD background; Bal, 2011). With the Leadership Team coordinating these various efforts, the intention is to see sustained reduction in the district's rates of disproportionality in special education identification and

to improve academic and social opportunities for *all* students with diverse strengths, needs, and interests.

Conclusion

In this collaborative mixed-methods study, we provide a situated case analysis of one school district's efforts to remediate minority disproportionality in special education after many years of unsuccessful efforts. We examined the local topography of disproportionality in the district through a praxis-oriented theory and methodology to understand and address this problem. We juxtaposed recent special education data against the Leadership Team's deliberations during the inquiry and planning process. Flen School District is undertaking a systemic transformation guided by iterative data analysis and critical reflection and program evaluation.

Limitations

Although this study addresses a noted gap in the disproportionality literature, it is necessary to acknowledge certain limitations. For descriptive analysis, we relied on existing data that may have been compromised by reporting or data entry errors. Furthermore, the specific variables used to operationalize complex factors, such as *socioeconomic status* via FRL status, may not have adequately captured the target constructs. Finally, because we were interested in understanding LEA-level disproportionality and systemic change, our qualitative data included perspectives and actions of educational leaders, but did not include other stakeholders. Lived experiences and perspectives of practitioners, families, community members, and students may have provided a more comprehensive, situated understanding of the district context and change efforts. In collaboration with WDPI and Flen School District, the CRPBIS Learning Labs (Bal, 2011) are currently implemented in four K–12 schools to understand and expand PBIS implementations in diverse cultural contexts of the local schools by building the organizational capacity for effective collaboration and communication of practitioners, families, and researchers and continuous use of data. The CRPBIS study was designed to provide a more critical understanding of the impact of the Leadership Team's systemic change initiatives at the school level in Flen School District.

Implications

We agree with Suzanne Donovan (2013) who stated

There will be no “silver bullets” that will transform education systems from the outside . . . But if we create the organizational capacity for researchers and design experts to work with

practitioners inside the system, we could potentially change the outcome. (p. 319)

Focusing on the district context and forming reciprocal relationships with practitioners in LEAs, a new generation of disproportionality studies can be influential in transcending the educational processes that produce and maintain disproportionality (Artiles, 2009). We suggest that future studies investigate the role of local adaptation of the federal-level policy and programs and the structural nature of race as enacted in districts and their influence on disproportionality. Such studies may address, for example, why American Indian students' ID identification increased significantly in the district in the last 3 years, whereas in the same time period, their placement in ED decreased drastically. Researchers who aim to address disproportionality should study local professional structures, practices, and perspectives. These analyses should focus on how students from CLD backgrounds, families, and teachers negotiate, orchestrate, and innovate within their immediate contexts. Integrating quantitative and qualitative approaches, collaborative research studies can actively include stakeholders in the research process and inform their actions toward enduring educational change (Engeström & Sannino, 2010; Frattura & Capper, 2007; Fullan, 2003; Mertens, 2010). Collaborative research design may also strengthen ecological and social validity of the research findings, empower local stakeholders, and facilitate culturally responsive and sustainable systemic transformations to address adaptive educational problems and runaway objects such as disproportionality from the ground-up.

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Notes

1. Pseudonyms, Adam Rutherford and Flen School District, are used to mask the identity of district's executive director of educational services for the blind review process as Mr. Rutherford is a co-author in this manuscript.

2. The term *students from culturally and linguistically diverse (CLD) background* is used to refer to students from racial/ethnic and linguistic minority groups. There are other terms used in the literature to refer these groups of students such minority, historically marginalized, underserved, and non-dominant. All of these terms place unequal distribution of power at the center of the discussions about education of students from nondominant backgrounds (Gutiérrez, 2006).
3. Disability categories under Individual With Disabilities Education Act (IDEA) are used in the manuscript.
4. Racial/ethnic categories of the U.S. Census Bureau are used.
5. Definitions and determination process for the student classification, disability categories, and assessment classifications in Wisconsin can be accessed at <http://www.dpi.wi.gov>.

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