

Achieving Equity in Special Education: History, Status, and Current Challenges

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ABSTRACT: *Among the most-longstanding and intransigent issues in the field, the disproportionate representation of minority students in special education programs has its roots in a long history of educational segregation and discrimination. Although national estimates of disproportionality have been consistent over time, state and local estimates may show varying patterns of disproportionality. A number of factors may contribute to disproportionality, including test bias, poverty, special education processes, inequity in general education, issues of behavior management, and cultural mismatch/cultural reproduction. This article provides a report on the history, measurement, status, and factors contributing to disproportionate representation in special education, and offers recommendations based on an understanding of racial and ethnic disparities in special education as a multiply determined phenomenon.*

Special education was borne out of, and owes a debt to, the civil rights movement. That is, the inspiration for, and the strategies used by, advocates whose efforts resulted in the first national special education legislation emerged from the struggles of the civil rights movement (Smith & Kozleski, 2005). Concerns about racial inequity were central to litigation (e.g., *Mills v. Board of Education*, 1972) that led to the promulgation of the first special

education legislation (Individuals With Disabilities Education Act, IDEA, Public Law No. 94-142, 1975). Thus, it is highly ironic that racial disparities in rates of special education service remain one of the key indicators of inequity in our nation's educational system.

The disproportionate representation of minority students is among the most critical and enduring problems in the field of special education. Despite court challenges (*Larry P. v. Riles*, 1972/1974/1979/1984; *PASE v. Hannon*, 1980);

federal reports (Donovan & Cross, 2002; Heller, Holtzman, & Messick, 1982); and abundant research on the issue (e.g., Chinn & Hughes, 1987; Harry & Klingner, 2006; Hosp & Reschly, 2003; Losen & Orfield, 2002; Oswald, Coutinho, Best, & Singh, 1999), the problem of disproportionate representation of minority students in special education has persisted. Indeed, although consistently documented, it is fair to say that the full complexity of minority disproportionality has not yet been understood, nor has a clear or comprehensive picture emerged concerning the causes of disproportionality (Donovan & Cross; Harry & Klingner). To address the issue of disproportionate minority placement, the 1997 reauthorization of the Individuals With Disabilities Education Act (IDEA 97, Public Law No. 105-17) stressed the importance of efforts to "prevent the intensification of problems connected with mislabeling and high dropout rates among minority children with disabilities" (p. 5) and that effort has been further amplified in the Individuals With Disabilities Education Improvement Act (IDEA 2004, Public Law No. 108-446).

This article provides a status report on minority disproportionality in special education. What is the historical context for current problems of racial/ethnic disparity? What are the current levels of disproportionality and how are those measured? What are the possible causes and conditions that create or maintain disproportionality? What interventions have been suggested? Finally, the history and current status of the field suggests that any comprehensive strategy for addressing disproportionality must attend to three aspects of the issue: (a) examination of current data, (b) comprehensive hypothesis formulation and interpretation, and (c) culturally responsive intervention and evaluation.

HISTORY: A BRIEF SYNOPSIS OF A VERY OLD PROBLEM

The initial identification of the problem of disproportionate representation of some groups, most notably African American students, in special education is often traced back to Dunn's (1968) classic critique of the field. Yet the problem itself has its roots far deeper, in the problems

of oppression and discrimination that have characterized race relations throughout American history (Smedley, 2007). In 1853, Margaret Douglas was sentenced to 1 month in jail for her attempts to teach the children of freed slaves to read and write (Blaustein & Zangrando, 1968). In 1896, *Plessy v. Ferguson* legitimated the doctrine of *separate but equal*, even though segregated education in the Jim Crow period was by no means equal (Jackson & Weidman, 2006). In the late 19th century and early 20th century, attacks on Black communities during race riots included the burning of Black schools (Harmer, 2001). Early 20th century mental testing was grounded in the premise of American eugenics that races other than those of northern European stock were intellectually inferior, and that the purity of the superior races should be preserved by vigorously segregating the "feeble-minded" (Terman, 1916). From Reconstruction until the 1950s, the dominant view of African American education was that it was intended not to educate for equal citizenship, but rather for the lower ranked positions that it was assumed African Americans would occupy (Rury, 2002).

It is not surprising then that leaders in the emerging field of special education documented racially-based disparities in service in the 1960s and 1970s. In his classic critique of special education, Dunn (1968) suggested that the overrepresentation of ethnic and language minority students in self-contained special education classrooms raised significant civil rights and educational concerns. Mercer (1973), highlighting ethnic differences in rates of special education service as part of her critique of the "6-hour" or *situationally retarded* child, found that public schools tended to identify more children as mentally retarded than any other child service setting.

In the wake of *Brown v. Board of Education* (1954) and legislative action to provide equal access to education, institutional structures, such as ability grouping and significantly separate special education classrooms, continued to keep minority students segregated from their White peers (Losen & Welner, 2001). Addressing violations of the Equal Protection Clause of the Constitution and Title VI of the Civil Rights Act of 1964, *de facto* segregation was challenged in the Washington, DC public school system in the case of *Hobson v.*

Hansen (1967). Continued challenges were brought in court under Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, and the Education for All Handicapped Children Act of 1975, addressing the role of standardized testing and the reduced educational opportunity afforded by the racial isolation of minorities in special education programs (*Diana v. California State Board of Education*, 1970; *Guadalupe Organization v. Temple Elementary School District #3*, 1972; *Larry P. v. Riles*, 1972/1974/1979/1984; *PASE v. Hannon*, 1980). Although the earliest of these cases were highly influential in the generation of state and federal statutes establishing special education in the early to mid-1970s, the outcomes of the cases were by no means uniform (Bersoff, 1981; Reschly, 1996). Nevertheless, concerns about bias in testing led to a profusion of research in the 1970s and early 1980s examining that issue.

In the 1980s, examination of the U.S. Department of Education Office for Civil Rights survey data began to produce estimates of the extent and distribution of disproportionality, which have been consistent over time (Chinn & Hughes, 1987; Donovan & Cross, 2002; Finn, 1982). Yet this research did not, in and of itself, provide any understanding of the mechanisms that contribute to racial and ethnic disparities in special education. Recent disproportionality research has seen a sharper focus on the forces that shape and maintain disproportionate representation (e.g., Artiles, 2003; Harry & Klingner, 2006; Hosp & Reschly, 2003; Skiba et al., 2006a).

Policy pressure to remediate disproportionality in special education at the state and local levels increased significantly with the inclusion of provisions concerning disproportionality in IDEA 1997 and especially with the expansion of provisions in the reauthorization of IDEA in 2004 (see Figure 1). Under the provisions of IDEA 2004, states must monitor disproportionate representation by race or ethnicity in disability categories and special education placements and require the review of local policies, practices, and procedures when disproportionate representation is found. One of the most significant new requirements under IDEA 2004 is that local educational agencies (LEAs) determined to have significant disproportionality must devote the maximum amount of Part B funds

allowable (15%) to early intervening programs. Early intervening services are distinguished from early intervention services for infants and toddlers with disabilities in that they identify and target "children who are struggling to learn . . . and quickly intervening to provide support" (Williams, 2007, p. 28). Significant disproportionality is not defined in IDEA 2004 nor its implementing regulations, and discretion is left to the states to develop the quantifiable indicators of disproportionality used for determining significance.

MEASUREMENT ISSUES IN DISPROPORTIONALITY

Disproportionality may be defined as the representation of a group in a category that exceeds our expectations for that group, or differs substantially from the representation of others in that category. Although concerns have historically tended to focus on issues of overrepresentation in special education or specific disability categories, groups may also be underrepresented in a category or setting (e.g., underrepresentation in general education settings, gifted education, or visual impairment). Although the concept of disproportionate representation seems relatively straightforward, measurement of disproportionality can be quite complex. In measuring disproportionality, one may assess (a) the extent to which a group is over- or underrepresented in a category compared to its proportion in the broader population (*composition index*) or (b) the extent to which a group is found eligible for service at a rate differing from that of other groups (*risk index* and *risk ratio*).

COMPOSITION INDEX

The most intuitive method of measurement of disproportionality, the composition index (CI; Donovan & Cross, 2002), compares the proportion of those served in special education represented by a given ethnic group with the proportion that group represents in the population or in school enrollment; that is, it provides a measure of representation in the target phenomenon compared to our expectations for that group. At the national level, African American students account for 33% of students identified as mentally retarded, clearly discrepant from their

representation in the school-age population of 17% (Donovan & Cross).

Although the CI is a clear cut measure, there are some difficulties with its use. First, there is no criterion for determining when a discrepancy in composition indices is meaningful or significant (Coutinho & Oswald, 2004). Chinn and Hughes (1987) suggested setting a confidence level of 10% around the population enrollment percentage of the group in question (e.g., for an overall African American enrollment of 17%, disproportionality would be expressed by special education enrollment rates outside of a range of 17% +/- 1.7%, that is, 15.3% to 18.7%). The CI is also beset by scaling problems: discrepancies at the extremes of the scale may not have the same meaning as those in the middle. Finally, the CI diminishes in usefulness as groups become more homogeneous (Westat, 2003, 2005). In several urban settings, African American enrollment exceeds 92%, making it impossible to find overrepresentation (e.g., 92% + 9.2% = 101.2% using Chinn & Hughes' criteria).

RISK INDEX AND RELATIVE RISK RATIO

An alternative approach to describing disproportionality is to measure a group's representation in special education compared to other groups. The risk index (RI) is the proportion of a given group served in a given category and represents the best estimate of the risk for that outcome for that group. Donovan and Cross (2002) reported, for example, that, at the national level, 2.64% of all African American students enrolled in the public schools are identified as having mental retardation (MR). By itself, however, the RI is not particularly meaningful. In order to interpret the RI, a ratio of the risk of the target group to one or more groups may be constructed, termed a risk ratio (RR; Hosp & Reschly, 2003; Parrish, 2002). A ratio of 1.0 indicates exact proportionality, whereas ratios above or below 1.0 indicate over- and underrepresentation, respectively. Comparing African American risk for MR identification (2.64%) with the risk index of 1.18% of White students for that disability category yields a risk ratio of 2.24 (2.64/1.18), suggesting that African Americans are more than two times more likely to be served in the category mental retardation than

FIGURE 1

Provisions of IDEA 2004 With Respect to Minority Disproportionality in Special Education

- States must have policies and procedures in place to prevent the inappropriate overidentification or disproportionate representation by race or ethnicity of students with disabilities, including children with a particular impairment. [34 CFR 300.173] [20 U.S.C. 1412(a)(24)]
- Each State that receives Part B funds must collect and examine special education data to determine if significant disproportionality based on race and ethnicity is occurring at the State or local level with respect to disability, placement in particular settings or disciplinary actions, including suspensions and expulsions. [34 CFR 300.646(a)] [20 U.S.C. 1418(d)(1)]
- If significant disproportionality is found, States must provide for a review and, if appropriate, revision of policies, practices, and procedures used in identification and placement. Local education agencies identified with significant disproportionality must devote the maximum amount of funds (15% of Part B) to comprehensive early intervening services directed particularly but not exclusively towards children from groups found to be disproportionately represented. Changes to policies, practices, and procedures must be publicly reported by the LEA. [34 CFR 300.646(b)] [20 U.S.C. 1418(d)(2)]
- States must disaggregate data on suspension and expulsion rates by race and ethnicity, comparing those rates either among local education agencies in the state, or to the rates of non-disabled children within those agencies. [34 CFR 300.646(b)] [20 U.S.C. 1418(d)(2)]
- States must monitor local education agencies using quantifiable indicators of disproportionate representation of racial and ethnic groups in special education and related services, to the extent the representation is the result of inappropriate identification. [34 CFR 300.600(d)(3)] [20 U.S.C. 1416(a)(3)(C)]

Note. Adapted from *Disproportionality and Over-identification* [Policy Brief], by the U.S. Department of Education, Office of Special Education Programs. Retrieved February 27, 2007 from <http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C7%2C>

White students. The same data can also be used to compute an *odds ratio*, representing both the probability of being in special education and the probability of not being in special education for both groups (Finn, 1982). In contrast to the RR, the odds ratios assess both occurrence and nonoccurrence data.

There are also limitations and issues of interpretation with the RR. Although less sensitive to changes in relative proportions of population, the RR may become unstable with small *n*'s (Hosp & Reschly, 2004). Risk ratios may also provide an incomplete picture of racial and ethnic disparities; although both 30% of Blacks versus 15% of Whites in a category will provide the same RR (2.0) as 2% of Blacks and 1% of Whites in that category, the meaning of those discrepancies varies greatly. Finally, there is no consensus in the field on the appropriate group against which to compare a target group's RI. A case can be made that, being the largest and historically dominant group, White enrollment represents the appropriate criterion against which to compare other racial/ethnic group representation and may be a more appropriate measure for assessing Latino disproportionality. Using White as the index group precludes the calculation of a RR for that group, however, making estimation of White underrepresentation in special education impossible (Westat, 2004). The U.S. Department of Education, Office of Special Education Programs recommends using *all others* as the denominator in the calculation of disproportionality (Westat, 2005), but the use of either Whites and All Others as the index group appears to be acceptable in the research literature (Skiba, Poloni-Staudinger, Simmons, Feggins, & Chung, 2005).

In order to aid states in the reporting of disproportionality data, the U.S. Department of Education, Office of Special Education Programs and Westat convened a national panel to consider methodologies for monitoring disproportionality. The guidance developed as a result of that panel (a) recommends the use of a RR approach to measure disproportionality; (b) provides instruction on the calculation of those measures; and (c) recommends an alternative "weighted" RR when there are fewer than 10 students from a target group in a given school district, or to compare RRs across districts (Westat, 2004, 2005). Again,

absolute criteria for significant disproportionality are left undefined.

Although there has been progress in recent years in standardizing the measurement of disproportionality, significant areas of confusion remain. Although different measures such as RRs and odds ratios are sometimes equated or confused in the literature (see e.g., Donovan & Cross, 2002), they provide similar data only under certain conditions (Davies, Crombie, & Tavakoli, 1998). Further, the issue of a definitive criteria in determining disproportionality is complex. The framers of IDEA 2004 may have deliberately intended to avoid cutoffs identifying significant disproportionality in order to allow responsiveness to regional and local variation; rigidly defined criteria might also encourage local districts to meet those criteria by simply cutting minority referrals. Yet, the absence of criteria for defining significant disproportionality may perpetuate confusion by failing to provide sufficient guidance to those at the state and local level who may be unfamiliar with statistical analysis.

STATUS OF DISPROPORTIONALITY

PATTERNS OF DISPROPORTIONALITY

Analyses of data from the U.S. Department of Education, Office for Civil Rights (OCR; e.g., Chinn & Hughes, 1987; Donovan & Cross, 2002; Finn, 1982) have revealed consistent patterns of disproportionality. African American students are typically found to be overrepresented in overall special education service and in the categories of mental retardation (MR) and emotional disturbance (ED), whereas American Indian/Alaska Native students have been overrepresented in the category of learning disabilities (LD). Data from the *26th Annual Report to Congress on the Implementation of the Individuals With Disabilities Education Act* (U.S. Department of Education, 2006; see Table 1) indicates that American Indian/Alaska Native students received services under the category developmental delay at a higher rate than other groups, Asian/Pacific Islander students received special education for hearing impairments and autism at a somewhat higher rate than other students, and Latino students were somewhat more likely to receive services in the category of hearing

TABLE 1

Risk Ratios for All Disability Categories and Racial/Ethnic Categories From the 26th Annual Report to Congress

<i>Disability</i>	<i>American Indian/ Alaska Native</i>	<i>Asian/ Pacific Islander</i>	<i>Black (not Hispanic)</i>	<i>Hispanic</i>	<i>White (not Hispanic)</i>
Specific learning disabilities	1.53	0.39	1.34	1.10	0.86
Speech/language impairments	1.18	0.67	1.06	0.86	1.11
Mental retardation	1.10	0.45	3.04	0.60	0.61
Serious emotional disturbance	1.30	0.28	2.25	0.52	0.86
Multiple disabilities	1.34	0.59	1.42	0.75	0.99
Hearing impairments	1.21	1.20	1.11	1.20	0.81
Orthopedic impairments	0.87	0.71	0.94	0.92	1.15
Other health impairments	1.08	0.35	1.05	0.44	1.63
Visual impairments	1.16	0.99	1.21	0.92	0.94
Autism	0.63	1.24	1.11	0.53	1.26
Deaf-blindness	1.93	0.94	0.84	1.04	1.03
Traumatic brain injury	1.29	0.59	1.22	0.62	1.21
Developmental delay	2.89	0.68	1.59	0.43	1.06
All disabilities	1.35	0.48	1.46	0.87	0.92

Note. Drawn from U.S. Department of Education, Office of Special Education and Rehabilitative Services (2006). *26th annual report to Congress on the implementation of the Individuals With Disabilities Education Act, 2004.*

Washington, DC: Westat. Risk ratios were calculated by dividing the (prerounded) risk index for the racial/ethnic group by the risk index for all other racial/ethnic groups combined for students ages 6 through 21 with disabilities, by race/ethnicity and disability category.

impairment. Parrish (2002) reported that African American students are the most overrepresented group in special education programs in nearly every state.

A number of characteristics of disproportionality have been noted. Disproportionate representation is greater in the judgmental or "soft" disability categories of MR, ED, or LD than in the nonjudgmental or "hard" disability categories, such as hearing impairment, visual impairment, or orthopedic impairment (Donovan & Cross, 2002; Parrish, 2002). Parrish reported that rates of overrepresentation tend to increase as a minority group constitutes a relatively high percentage of their states' population. Finn (1982) reported a complex relationship between school district size and percentage of minority enrollment—for smaller districts, disproportionality was greatest in districts with the highest minority enrollment, whereas for larger districts (30,000 or more students), disproportionality was greatest when minority enroll-

ment was 30% or less. Finally, states may show evidence of disproportionality in categories that appear proportionate at the national level, and local school districts may show evidence of disproportionality in a category not disproportionate at the state level (Harry & Klingner, 2006).

In contrast to the relative stability of African American disproportionality over time, there have been inconsistencies in estimates of the degree and direction of Latino disproportionality. Some state- and district-based studies, primarily based on data from California or New York, have tended to show Latino overrepresentation in special education (Artiles, Rueda, Salazar & Higa-gareda, 2002; Wright & Santa Cruz, 1983). National data, however, show that the most common finding is the *underrepresentation* of Latino students in overall special education service and in most disability categories (Chinn & Hughes, 1987; National Center on Culturally Responsive Educational Systems, NCCRESt, 2006). Exami-

nation of Table 1 suggests Hispanic overrepresentation in Hearing Impairments and perhaps LD; underrepresentation is a much more common finding across a number of disability categories.

Discrepancies between findings of overrepresentation for African American students and underrepresentation for Latino students may be due in part to the tendency for overrepresentation to become more pronounced as minority students represent a larger proportion of the population. In contrast to the case of African American students, where *overrepresentation* in certain categories has been found to be relatively consistent across time and locale, overrepresentation of Latino students appears to be concentrated in those areas in which Latino students represent a relatively higher proportion of enrollment (Parish, 2002). Formal studies to evaluate these discrepancies have been limited (Klingner, Artiles, & Mendez Barletta, 2006). The difficulty in accurately distinguishing between language acquisition difficulties for English Language Learners and a language disability also complicates identification and assessment issues for Latino students (Barrera, 2006; Ortiz, 1997).

DISPROPORTIONALITY IN EDUCATIONAL SETTINGS

Although less well researched, available data demonstrates that students of color, especially African Americans, are overrepresented in more restrictive educational environments and underrepresented in less restrictive settings (Fierros & Conroy, 2002; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006b). Given the conceptual importance of inclusion and the dramatic increases in recent years in general education placements for students with disabilities (McLeskey, Henry, & Axelrod, 1999), it could be argued that disproportionality with respect to access to less restrictive educational environments may be more important conceptually than disparities in disability category (Skiba et al., 2006b).

Different interpretations might well be applied to findings of racial disparities in educational settings. It might be presumed, for example, that "differences in placement by race/ethnicity may reflect the disproportional representation of some minority groups in disability

categories that are predominately served in more restrictive settings" (U.S. Department of Education, 2002, p. III-45). Yet failure to find such a pattern may suggest that disproportionality in special education settings is driven, to some extent, by systemic responses, such as educators who may mistake cultural differences for cognitive or behavioral disabilities (Harry, 2008; Oswald et al., 1999; Trent, Kea, & Oh, 2008).

To test that hypothesis, Skiba et al. (2006b) explored the extent to which African American students were proportionately placed in more and less restrictive settings *within* five disability categories in one state's data for a single year. In four of the five disability categories, African American children were more likely than their peers *with the same disability* to be overrepresented in more restrictive settings, or underrepresented in the general education setting. Further, disproportionality in placement increased as the severity of the disability decreased: African American students with disabilities were much more likely than peers *with the same disability* label to be served in a separate class setting in milder, more judgmental categories such as learning disabilities (RR = 3.20) or speech and language (RR = 7.66). Such results do not support the hypothesis that minority disproportionality in educational environments is simply a function of disproportionality in disability category. That is, the overuse of more restrictive placements for African American students with disabilities is likely due to factors other than severity of disability; further research is critically needed to identify what those factors might be.

CAUSES OF DISPROPORTIONATE SPECIAL EDUCATION REPRESENTATION

A fairly extensive database has consistently documented African American disproportionality in special education service and across educational environments, although findings regarding Latino disproportionality are less extensive and less consistent. Describing the extent of the problem is merely the first step in understanding the causes and conditions that create and maintain racial disparities in special education. A number of possible conditions or causes related to special educa-

tion disproportionality have been explored, beginning in the 1970s with test bias.

PSYCHOMETRIC TEST BIAS

In the 1970s, the issue of psychometric test bias played a central role in court cases concerning minority disproportionality, specifically overrepresentation. These cases appeared to be based on the presumption that tests that yielded group racial differences in results must, of necessity, be biased (Mercer, 1973). Although the presiding judge in *Larry P. v. Riles* (1972/1974/1979/1984) appeared to agree with this assessment, other courts failed to find evidence that bias in assessment has yielded misclassification (Bersoff, 1981). The possibility of bias against minorities in standardized tests of intelligence and achievement was examined fairly extensively in the 1970s and 1980s, although there has been less research on the topic in recent years (Valencia & Suzuki, 2000), focusing mainly on the impact of high-stakes testing (Madaus & Clarke, 2001). Extensive reviews of that literature have reached somewhat different conclusions.

Perhaps the most influential review of cultural bias in psychometric tests was conducted by Jensen (1980). That review and others (Brown, Reynolds, & Whitaker, 1999; Cole, 1981) concluded that data from a number of converging sources indicates little or no evidence of bias against minority students in intelligence tests. First, a similar factor structure for intelligence tests for Black and White students suggests that the major constructs underlying those tests are comparable across ethnic groups (Brown et al.). Second, although it has been argued that under-sampling of minority populations will lead to tests that are biased against minority populations (Harrington, 1975), tests of the hypotheses with human samples have not yielded such results (Hickman & Reynolds, 1987). Finally, comparisons of African American and White performance on a wide range of tests have generally failed to find a significant bias at the item level (Brown et al.). For these reasons, it has been argued that the case against test bias has been conclusively made (Jensen) and some have expressed frustration about the failure of the field to fully accept such findings (Reynolds, 2000).

Other equally extensive reviews of the same literature have not always reached the same conclusions, however. Valencia and Suzuki (2000) noted that, because the majority of studies on test bias were conducted in the 1970s and 1980s, almost all of what we know regarding test bias is based on the WISC and WISC-R intelligence tests, neither of which is currently in use. Further, the literature on test bias has underrepresented students in special education and some minority groups. Nor are the results of available research entirely consistent. Of 32 investigations of content and predictive bias reviewed by Valencia and Suzuki, 50% yielded findings concerning bias that were at least mixed; in the area of predictive validity, 6 out of 18 investigations (involving primarily Mexican Americans, but also African Americans and Asian Americans) showed evidence for bias in predictive validity.

In particular, recent research has pointed to possible sources of item bias. Shepard (1987), arguing that analysis at the individual item level may be insufficient for exploring test bias, suggested that more sophisticated methodologies, such as item response theory, have yielded patterns of bias that explain a small but significant portion of the variance in Black-White test score discrepancies. In particular, concerns have been raised in regard to item selection processes on commercially available standardized tests that may be weighted differentially against minority test takers (Freedle, 2003; Kidder & Rosner, 2002). Examining the test construction process for the SAT, Kidder and Rosner found that questions more frequently answered correctly by African American students than White students are rejected at a higher frequency for inclusion, because such items do not correlate with a total score that is higher for White than Black test takers. Further research is necessary to determine to what extent such processes may apply in the construction of standardized tests of intelligence or achievement used in special education assessment.

Finally, language differences and examiner effects may also contribute to bias in testing. Abedi (2004) demonstrated that tests normed for native English speakers have lower reliability and validity for English Language Learners and noted that tests standardized on native English speakers may inadvertently function as English language

proficiency tests. The examiner may also represent a source of bias. In a meta analysis of the effects of examiner familiarity on test performance, Fuchs and Fuchs (1986) reported that examiner unfamiliarity, defined in part as membership in a different group from the examinee, had a significant impact on standardized test performance. In particular, the examinees of low socioeconomic status (SES) were more significantly affected than examinees of higher SES.

SUMMARY

An extensive literature exploring psychometric test bias has, in general, tended not to identify a level of cultural bias in standardized tests of intelligence sufficient to account for the inappropriate classification of students as disabled. Yet, given the failure to include relevant populations in some areas of study, a literature base that is, for the most part, more than 20 years old, and inconsistent evidence in certain areas (e.g., item bias, examiner bias), the assertion that test bias has been conclusively ruled out as a possible source of minority disproportionality in special education is at best premature.

Even a demonstration that standardized tests of cognition were completely free of psychometric bias would not in and of itself identify the source of the Black-White test score gap; in particular, findings that tests are unbiased does *not* mean that racial differences in IQ scores are inherent or genetic. Tests that are technically unbiased may still provide an index that is essentially still unfair to certain groups if interpreted uncritically. Wide and consistent disparities have been identified in the quantity and quality of educational resources available to White and African American students in American education (Donovan & Cross, 2002; Kozol, 2005). While depressed minority test scores are an indicator of current performance, they are also a *product* that accurately reflects the impact of economic and educational disadvantage. Tests that are unbiased may provide an accurate estimate of current individual aptitude; yet they also provide an unbiased and accurate record of the effects of unequal educational opportunity. Indeed, at this point in history, tests that *failed* to reflect some form of disadvantage for victims of racial or socioeconomic bias might be said to lack concurrent and

predictive validity with respect to the conditions of bias present in our educational and social systems (Skiba, Bush & Knesting, 2002).

SOCIO-DEMOGRAPHIC FACTORS: THE INFLUENCE OF POVERTY

A second factor that might contribute to a disproportionate rate of representation in special education among students of color are socio-demographic factors associated with economic disadvantage. One might expect that because minority students are more likely to be exposed to poverty in American society (U.S. Census Bureau, 2001), the risk factors associated with poverty will result in increased academic underachievement and emotional/behavioral problems among minority students, thus increasing the risk of minority referral to special education.

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A number of demographic factors related to geographical location and SES have been shown to be associated with student educational achievement or early cognitive development. These include neighborhood and housing stability (Ainsworth, 2002); the student's home environment (Caldas & Bankston, 1999); family health care (Kramer, Allen, & Gergen, 1995); and geographic location (Huebner, 1985). McLloyd (1998) reported that the effects of poverty on early cognitive development, school achievement, and socio-emotional functioning are dependent on the duration, timing, and neighborhood context of poverty; deep and persistent poverty consistently predicts more deleterious effects. The 2002 National Research Council panel exploring disproportionality in special education (Donovan & Cross, 2002) affirmed that biological and social/environmental factors that disproportionately affect minority students have been found to contribute to poor cognitive and behavioral outcomes, and they recommended a national commitment to early intervention to offset socioeconomic risk factors.

The consistent overlap of race and poverty in this country has led some to suggest that race is simply a "proxy" for poverty (Hodgkinson, 1995). MacMillan and Reschly (1998) argued that the correlation of ethnicity and social class suggests that class may explain more variance than race in predicting service in high-incidence disabilities. That view is also widely shared among school personnel (see e.g., Harry, Klingner, Sturges, & Moore, 2002; Skiba et al., 2006a).

Yet showing that poverty influences academic achievement is not the same thing as demonstrating that poverty causes minority disproportionality in special education. Skiba et al. (2005) noted that developing a link between poverty and minority disproportionality requires a series of logical connections, not all of which are well-documented in the literature. Although there is a fairly strongly documented connection between minority status and poverty (U.S. Census Bureau, 2001), direct links between poverty and academic and behavioral outcomes are not as impressive (Brooks-Gunn & Duncan, 1997). Nor do academic or social/behavioral problems necessarily predict special education eligibility, because the specific disability definitions of IDEA are intended to ensure that not all students with academic or emotional/behavioral problems are found eligible for special education. Thus, to demonstrate that poverty contributes significantly to special education disproportionality, it would be necessary to show that economic disadvantage increases the risk, not merely of underachievement, but of the specific types of learning and behavior problems defined by IDEA as disability.

Given this complexity, it is not surprising that investigations of the association of poverty and special education disproportionality have yielded inconsistent results that sometimes contradict the race-poverty hypothesis. Some have found that poverty indeed creates higher rates of minority placement in the disability categories of LD (Coutinho, Oswald, & Best, 2002); MR (Finn, 1982); and ED (Oswald, Coutinho, & Best, 2002). Others, however, have reported an opposite direction of effect, finding that as levels of poverty decrease, minority students are at greater risk for referral as LD (Zhang & Katsiyannis, 2002); MR (Oswald, Coutinho, Best, & Nguyen, 2001); and ED (Oswald et al., 1999).

In order to directly assess the contribution of poverty to the disproportionate representation of African American students in special education, Skiba et al. (2005) studied the relationship of special education enrollment, race, socioeconomic and demographic factors, and test score outcomes in a sample of 295 school districts in a midwestern state. Across ordinary least squares and logistic regression equations, poverty made a weak, inconsistent, and often counter-intuitive contribution to the prediction of disproportionality across a number of disability categories. Where poverty made any contribution above and beyond race in predicting disability identification, its primary effect was to magnify existing racial disparity.

Generalizations about the effects of poverty on parenting may also yield unwarranted assumptions about families from groups overrepresented in special education. Although poverty has been shown to be associated with more negative parenting styles (McLloyd, 1998), there is no evidence that African American or Latino families are, on average, more dysfunctional than other families. Yet, in their recent ethnographic study of racial disproportionality in special education, Harry and Klingner (2006; Harry, Klingner, & Hart, 2005) found negative beliefs about African American families to be pervasive among educators. Families of African American students were described as neglectful, incompetent, and dysfunctional, often absent any firsthand knowledge of those families' actual circumstances. Such descriptions also ignore significant cultural strengths in African American and Latino communities, such as the involvement and expertise of extrafamilial adults, who may act as protective factors despite economic disadvantage (Harry & Klingner, 2006; King, 2005).

In summary, a variety of poverty-associated risk factors have been shown to predict academic and behavioral gaps that might be expected to lead to special education referral, suggesting that economic disadvantage makes some contribution to minority disproportionality in special education. Yet the path from initial referral to eligibility determination is complex and governed by policy regulations that are by no means strictly linear. It is not surprising, then, that research to this point has not supported the hypothesis that poverty is the sole or even primary cause of racial and ethnic

disparities in special education. In particular, although poverty creates conditions that reduce parenting efficacy, assumptions made about the general quality of African American or Latino families and their contributions to disparate rates of special education referral are unwarranted given the extent of available data.

Finally, regardless of the relationship among poverty, academic achievement, and racial disparities, mechanisms for the negative effects of poverty remain unclear. It is often presumed that economic disadvantage affects educational readiness by increasing biological or family-based risk prior to school entry. Yet students placed at risk for the biological or social effects of poverty are also more likely to attend schools with reduced educational resources and fewer opportunities for quality instruction (McLloyd, 1998; Peske & Haycock, 2006). In an educational system in which poor students of color routinely receive an inferior education, the possible contributions of the schooling itself to disparities in special education service must also be considered.

UNEQUAL OPPORTUNITY IN GENERAL EDUCATION

One of the most consistent findings in educational research is that students achieve in direct proportion to their opportunity to learn (Wang, Haertel, & Walberg, 1997). It might well be expected that students whose educational opportunities are limited will be more likely to be referred for special education services (Artiles & Trent, 1994; Harry, 1994). Differential access to educational resources has been consistently demonstrated for some minority groups in a number of areas (Kozol, 2005; Peske & Haycock, 2006).

Of the possible links between general education practices and special education disproportionality, however, only the proportion of culturally consonant teachers in the teaching force has been directly investigated. Serwatka, Deering, and Grant (1995) found that as the percentage of African American teachers increased, overrepresentation of African American students in the emotionally disturbed category decreased. Similarly, in a cross-state comparison, Ladner and Hammons (2001) found that the discrepancy of African American and White rates of eligibility

for special education rose in direct proportion to the percentage of the teaching force that was White, especially in districts with a White percentage of more than 60%.

More generally, however, inequity in the quality and quantity of educational resources has been extensively documented. Curricula and instructional presentation appear to disfavor working-class students or students of color (Ferri & Connor, 2005; Sleeter & Grant, 1991). Serious deficiencies in physical facilities and resources in urban schools have been documented (Kozol, 1991, 2005; Oakes, Ormseth, Bell, & Camp, 1990). Such resource disparities may have their origin in inequitable school funding formulas (Rebell, 1999) or in historical patterns of segregation and re-segregation (Katznelson, 2005; Orfield & Eaton, 1996). Finally, a number of factors ranging from inadequate teacher preparation (Barton, 2003); to teacher inexperience (Peske & Haycock, 2006); to teacher reticence to teach in what are perceived to be challenging areas may limit the access of students in high poverty, high minority districts to quality teaching (Darling-Hammond, 2004). Students from poverty backgrounds and students of color are also more likely to be taught by teachers with less experience and expertise, in more poorly funded schools that have difficulty recruiting and maintaining both teachers of color in particular and a sufficient teaching force in general (Barton; Donovan & Cross, 2002; Peske & Haycock).

These inequities have a demonstrable effect on the educational opportunity and school achievement of low SES children. In a multiyear observational study, Greenwood, Hart, Walker, and Risley (1994) reported that inferior instruction in low SES schools resulted in students in those schools receiving an equivalent of 57 weeks less academic engagement than students in high SES schools by the sixth grade; as a result, an achievement gap equal to 0.3 of a grade level at school entry grew to a gap of 3.5 grade levels by Grade 6. These data make a strong case that students of color in low SES communities are at greater risk for poor quality educational experiences that undermine their academic achievement.

It is reasonable to presume that factors that limit educational opportunity will impact educational achievement, thereby increasing the risk for

special education referral (Skiba, Bush, & Knesting, 2002). Although suggestions that equity in special education services might best be achieved by ensuring that quality educational services for all students are longstanding (Heller et al., 1982), the influence of general educational quality on special education referral is still remarkably understudied. Although the link between teacher demographics and special education disproportionality has been explored to some extent (Ladner & Hammons, 2001; Serwatka et al., 1995), the influence of other systemic factors such as quality of curriculum, instruction, resources, or teacher training on differential rates of special education referral and eligibility determination have yet to be directly studied.

SPECIAL EDUCATION ELIGIBILITY AND DECISION-MAKING PROCESSES

Disparities in special education could be influenced by inadequacies in practice or bias generated at the level of special education referral and decision making. Although this possibility has received some research attention, the pattern of results is somewhat unclear.

Referral. Available data suggest that racial disparities in the classification of students as disabled begin at the stage of initial classroom referral. Reviewing records of students referred for special education evaluation in an urban school system, Gottlieb, Gottlieb, and Trongone (1991) found that teachers referred minority children more often than nonminority children and tended to refer minority students for behavioral rather than academic issues. In a meta-analysis of 10 studies between 1975 and 2000 examining referral to special education, Hosp and Reschly (2003) found that both African American and Latino students were referred more often to special education than White students.

Examination of prereferral decision making by teachers has yielded mixed results. Bahr, Fuchs, Stecker, and Fuchs (1991) found that, despite relatively minor differences in descriptions of academic and behavioral functioning, general education teachers were more likely to describe African American students as difficult to teach and, hence, more likely to be referred to special education. Shinn, Tindal, and Spira (1987) com-

pared teacher recommendations for referral based on curriculum-based measures and found that teachers were more likely to refer Black than White students based on those results in Grades 2 to 4. In contrast, MacMillan and Lopez (1996) found that Black students referred to a student support team prior to special education referral were more likely to have lower test scores and more severe behavioral ratings, leading the researchers to conclude that teachers may wait to refer Black students until their academic or behavioral problems reach a higher level of severity. On a positive note, Gravois and Rosenfield (2006) found that changes in prereferral practice can significantly impact disproportionate representation: Schools using an instructional consultation model significantly reduced both their overall rate of special education referral and identification and reduced racial/ethnic discrepancies in rates of referral and identification.

Assessment and Decision Making. Investigations of the possibility of bias during the assessment and decision-making process have not been undertaken recently and present a somewhat conflicting picture. Analogue studies using a case study vignette (e.g., Prieto & Zucker, 1981) found a greater willingness among both general and special education teachers to recommend minority students for special education given identical referral information. In two studies using a similar simulated research paradigm, Tobias and colleagues (Tobias, Cole, Zibrin, & Bodlakova, 1982; Tobias, Zibrin, & Menell, 1983) found that teachers rated students of minority backgrounds different than their own as more appropriate for special education identification in the first but not the second study. Reviewing tapes of case review teams making placement decisions, Ysseldyke, Algozzine, Richey, and Graden (1982) reported that factors such as student race and SES contributed more to placement decisions than did performance data. Tomlinson, Acker, Canter, and Lindborg (1978) examined special education referral and decision-making processes and found that minority students were referred more often, that their parents were contacted significantly less often to participate in the special education process, and that the recommendations to minority parents were more restrictive and less comprehensive than recommendations for nonminority parents.

Large discrepancies between actual practice and the ideal due process provisions outlined in IDEA have been documented in the literature, and those discrepancies may well contribute, to some extent, to disproportionality in service. Gottlieb, Alter, Gottlieb, and Wishner (1994) noted that, in the urban school districts they studied, many students received services for learning disabilities despite not meeting the LD discrepancy criteria for identification. Similarly, MacMillan and Reschly (1998) argued that up to half of all students identified as LD do not meet their state's criteria for identification. In their ethnographic exploration, Harry and Klingner (2006) described numerous inconsistencies in the special education conferencing phase that may contribute to disproportionality, including rates of special education referral differing by the race and ethnicity of the teacher, the disproportionate weight given the opinion of the referring teacher at the case conference, and the weak emphasis on prereferral strategies.

Thus, racial and ethnic disparities in special education identification appear to begin at the stage of initial teacher referral, and it seems likely that breakdowns in the due process provisions governing special education can contribute to the inappropriate identification of minority students in special education. Yet given the lack of consistency in this research, as well as the age of many of the studies, the extent to which current special education eligibility determination processes contribute to special education inequity is unclear. The most recent National Research Council (NRC) panel (Donovan & Cross, 2002) concluded that evidence of bias in the referral to placement process was mixed, but that the process has sufficient shortcomings as to be unable to ensure that the correct students are being identified. Further, the panel contended that the entire process is weighted toward referral and placement only after a student has experienced failure, thus ensuring that child's problems will be relatively intractable by the time he or she is finally placed in special education.

BEHAVIOR AS THE NEXUS OF RACE AND DISABILITY

Special education is, of course, not the only educational domain in which students of color are dis-

proportionately represented. Consistent evidence has documented large gaps between students of color and their peers in academic achievement as measured by accountability test scores (Jencks & Phillips, 1998); graduation and dropout rates (Holzman, 2004); and placement in educational programs such as gifted and talented and Advanced Placement/Honors courses (Donovan & Cross, 2002; Ford, Grantham, & Whiting, 2008; Joseph & Ford, 2006).

The disproportionate representation of African American students in school suspension has been widely documented. For more than 30 years, in national, state, district, and local data, African American students have consistently been found to be suspended out-of-school at higher rates than other students, and similarly overrepresented in office referrals, corporal punishment, and school expulsion (e.g., Children's Defense Fund, 1975; Raffaele Mendez & Knoff, 2003; Skiba, Michael, Nardo, & Peterson, 2002; Wu, Pink, Crain, & Moles, 1982). In one study of a large and diverse school district, 50% of African American male and one third of African American female middle school students experienced out-of-school suspensions during one school year (Raffaele Mendez & Knoff), rates that were substantially higher than White male (25%) and White female (9.3%) middle school students. Disproportionality in school suspension has not been as consistently documented for Latino or other ethnic minority groups (Skiba & Rausch, 2006).

The contributing factors or causes of racial and ethnic disparities in school discipline have not been conclusively determined. Although it has been argued that disproportionality in school punishments is primarily a function of poverty (National Association of Secondary School Principals, 2000), race remains a significant predictor of suspension and expulsion, even when socioeconomic status is controlled in multivariate analyses (Skiba, Michael, et al., 2002; Wu et al., 1982). Nor does disciplinary disproportionality appear to be the result of differential rates of misbehavior by African American students. Any racial differences in reasons for suspension that have been found suggest that African American students receive more severe punishments for less serious infractions (Shaw & Braden, 1990) or are referred to the office more frequently for more subjective

reasons, such as disrespect or loitering (Skiba, Peterson, et al., 2002). Other explanations for disciplinary disproportionality include the possible misinterpretation by classroom teachers of culturally based behaviors (Townsend, 2000) or stereotypes regarding Black males that increase the likelihood of office referral (Ferguson, 2001).

There are also indications of racial disproportionality in the application of the specific disciplinary provisions of IDEA. A recent state report (Rausch & Skiba, 2006) found that about 3% of African American students with disabilities received at least one of the IDEA disciplinary provisions, a rate 2.8 times higher than all other students with disabilities. Further, the greatest racial disparities were found in the IDEA disciplinary provision *other suspension/expulsion greater than 10 days*, in which African American students were found to be 3.4 times as likely as their peers with a disability to receive this provision. Disproportionality in specific school districts ranged from relatively proportional use (relative risk ratio = 1.03) to a rate in one school district in which African American students with disabilities were more than 10 times more likely than other students with disabilities to receive one of the IDEA disciplinary provisions.

The intersection of disproportionality in school discipline and special education has been commented on (Gregory, 1997) but insufficiently explored. Investigations of disproportionality in referrals to special education or prereferral teams consistently find that African American students are more likely to be referred for behavioral reasons (Gottlieb et al., 1991; MacMillan & Lopez, 1996). The nature and causes of disciplinary disproportionality represent an important avenue for further research on racial disparities in special education.

CULTURAL MISMATCH AND CULTURAL REPRODUCTION

Emerging scholarship has conceptualized the disproportionate representation of minority students in special education, African American students in particular, as a symptom of a broader disconnect between mainstream educational culture and the cultural orientations of communities of color. A number of scholars have argued that contempo-

rary mainstream educational systems, special education systems in particular (Patton, 1998), closely reflect the knowledge, values, interests, and cultural orientations of White, middle-class cultural groups (Delpit, 1995; King, 2005). Education that fails to explicitly teach the codes and rules necessary for successful participation in unfamiliar cultural contexts (Delpit), does not connect knowledge produced in schools to students' lived experiences (Ladson-Billings, 1994), or ignores the foundational role of culture in knowledge production (Sheets, 2005) may yield inadequate and inappropriate educational experiences for a range of cultural groups.

Notably, such knowledge is not well-represented in mainstream scholarship (Trent et al., 2008). The intensive observation required by such research may make it more difficult to conduct, compared to tests of more prevalent hypotheses present in contemporary scholarship (e.g., poverty, test bias). Alternatively, it has been argued that non-mainstream epistemologies, paradigms, discourses, and research orientations have been systematically devalued or "silenced" (Delpit, 1995), producing a database that has explored only a limited range of hypotheses for unequal educational outcomes of African American and Latino students in general (King, 2005), and disproportionality in special education in particular (Patton, 1998).

One theoretical perspective that holds promise for providing a framework within which to view racially disparate educational outcomes is the model of *cultural reproductive* systems and actions (Bowles & Gintis, 1976). Developed as an explanation of the perpetuation of social class hierarchies, the theoretical framework of cultural reproduction has been utilized by equity researchers to demonstrate how institutional and individual actions maintain a hierarchical status quo at the expense of less-privileged groups (Harry & Klingner, 2006; Mehan, 1992; Oakes, 1982). Cultural reproduction implies that individuals can become a part of institutional patterns through *constitutive actions* (Mehan, 1992; Mehan, Hertweck, & Miehls, 1986) that can reproduce the status quo without being consciously aware of their contribution to inequity.

Recent ethnographic investigations have found clear evidence of reproductive processes

that may well contribute to inequitable outcomes in special education. In an ethnographic study focusing primarily on the role of school psychologists in assessment decision making, Harry et al. (2002) found that although psychological testing is often perceived as an objective procedure designed to reduce the influence of individual judgment, in fact, the process is often highly idiosyncratic, as psychologists choose tests or test batteries more likely to produce the results they, or the teachers making the referral, wish to see. Using Heller et al.'s (1982) conclusion that disproportionality could be viewed as a problem if there is evidence of inappropriate practice or bias at any phase of the process, Harry and Klingner (2006) tracked opportunity to learn, the special education eligibility decision-making process, and special education programming. They found evidence of a number of institutional constraints and constitutive actions that appeared to influence the course of special education placement and programming for minority students, including poor teacher quality, large class sizes, arbitrary application of eligibility decision-making criteria, tardiness in placement processes, and special education programs that were themselves ineffective or overly restrictive. The authors argued that such findings suggest the need for increased attention to *school-based risk* as a contributing factor to inequity in special education.

DISPROPORTIONALITY AS A MULTIPLY DETERMINED PHENOMENON

It should be apparent from the preceding discussion that there is no single simple explanation that appears to fit the data on special education disproportionality. Rather, minority disproportionality in special education appears to be *multiply determined*, a product of a number of social forces interacting in the lives of children and the schools that serve them (see Trent et al., 2008).

Qualitative findings have highlighted the interacting forces that may set the context for and maintain racial disparities in special education. In an intensive case study interviewing teachers, principals, school psychologists, and administrators about their perspectives on special education and culture, Skiba et al. (2006a) reported a complex picture of the factors that contribute to referral.

Teachers feel highly challenged to meet the needs of students with economic disadvantages, yet feel they are given insufficient resources to meet those needs. Classroom behavior proved to be a difficult issue for many teachers, exacerbated by cultural gaps and misunderstandings. Prereferral or general education intervention teams were seen as potentially useful in supporting teachers working with students with academic or behavioral challenges, but the use and perceived effectiveness of those teams varied widely. Perceiving special education as the only resource available for helping students who are not succeeding, classroom teachers were quite willing to err in the direction of over-referral if it meant access to more resources for their neediest students. Finally, there was clear discomfort among many respondents in discussing issues of race; although comfortable and even eloquent in describing the impact of poverty, many respondents seemed anxious to avoid talking about issues involving race or ethnicity.

The multidetermined nature of disproportionality likely means that there is no single cause that can be called on to explain racial and ethnic disparities in special education in all states or school districts. In urban schools and districts, a lack of physical and personnel resources may create a pressure to refer low performing students who are predominantly minority to one of the few services available for students who are struggling (Gottlieb et al., 1994; Skiba et al., 2006a). Yet Ladner and Hammons (2001) found that the highest rates of racial/ethnic disparities in special education service were not evident in those urban districts, but rather in higher-income suburban districts. These types of discrepancies suggest that the search for the causes of disproportionality will need to become more attuned to differential rates of disproportionality across locales and different factors that may contribute to disproportionality in those locales. Widely differing racial/ethnic patterns of disproportionate representation suggest that the causes of disparities will vary considerably for African Americans in Washington, DC or New York City and Latino students in Houston or Los Angeles, and that both of these will show a pattern of disproportionality dramatically different from a predominantly White school system in a suburban or rural location.

STRATEGIES FOR REDUCING DISPROPORTIONATE REPRESENTATION

If disproportionality in special education is multi-determined, no single intervention strategy can be universally relied on to reduce racial disparity. Rather, complex causality clearly suggests the need for comprehensive and multifaceted assessment and intervention plans. In particular, the possibility that the determinants of disproportionality are locale-specific suggests that remediation plans must be driven by local needs assessment capable of identifying unique local patterns. Team-based needs assessment models for addressing disproportionate representation have been described by Ritter and Skiba (2006) and Klingner et al. (2005). Central to such an approach is a process that moves from data collection and examination, to interpretation, to culturally competent intervention and evaluation.

EXAMINATION OF THE DATA

Data on disproportionality serves to establish both a baseline and a method of monitoring progress. The NRC recommended a national effort to establish both a standard data collection system and a longitudinal assessment of trends in disproportionality (Donavan & Cross, 2002). One important future course for practical remediation of disproportionality at the local level will be to disseminate practical methods of data collection analysis (Salend, Garrick Duhaney, & Montgomery, 2002). It seems likely that the continuous feedback loop afforded by the examination of local data on racial disparities can create change at the systems level (Johnson, 2002). Yet, it is only relatively recently that the field of special education has identified a set of measures (e.g., the composition index, the relative risk ratio) with which to monitor disproportionate representation. If local efforts are to be made to address racial disparities, practical and efficient methods for calculating disparities will need to become available to school personnel.

DATA INTERPRETATION

A range of possible hypotheses might be brought to bear in interpreting a set of data indicating

racial disparity. On one end, hereditarian interpretations (e.g., Herrnstein & Murray, 1994) have tended to focus on inherent and genetic explanations of the achievement gap and group differences in performance. Alternatively, critical race theory (Delgado & Stefancic, 2002; Ladson-Billings & Tate, 1995) suggests that racial and economic disparities result from the use of the concept of race in structuring institutions and interactions to maintain the power and privilege of the dominant group. It is clear that each of these theoretical orientations yields very different implications for intervention.

[C]omplex causality clearly suggests the need for comprehensive and multi-faceted assessment and intervention plans.

Indeed, the effectiveness of an intervention chosen to address disproportionate representation depends, to some degree, on the accuracy of diagnosis of the causes of disparity. Early intervention appears to be an extremely promising intervention for a range of developmental issues related to socioeconomic disadvantage (Barnett, 1995). Early intervention approaches could be expected to reduce disparities only to the extent that economic disadvantage is at work. Early intervention would not be expected to address systemic failures or bias and would hence fail to address disproportionality that is due to institutional inequity.

Unfortunately, interpretation of data on differential racial treatment itself appears to be conditioned by race. The difficulty that educators, especially White educators, have in openly talking about race and racism has been well documented (King, 1991; Skiba et al., 2006a; Trepagnier, 2006). A number of authors have noted that it is common for interpretations of equity data to be based on a majority viewpoint (King, 2005; Patton, 1998). Recent history from the Simpson trial to reactions to Hurricane Katrina indicate that, at this point in our nation's history, interpretations of data on racial and ethnic disparities will vary depending on the cultural makeup of the audience confronting the data. Thus, educators and policy makers seeking effective interventions to close special education equity gaps must be will-

ing to openly discuss and address issues of race, ethnicity, gender, class, culture, and language. Moreover, processes chosen to address inequity must have at their core a mechanism to ensure that the perspectives of all stakeholders, especially those of historically marginalized groups who have been the recipients of unequal treatment, are represented when interpreting data on racial and ethnic disparities.

INTERVENTION AND EVALUATION

Until such time as the understanding of the complex interactions that create disproportionality improves, intervention plans addressing disproportionate service must be both comprehensive and local. In the context of a multidetermined phenomenon, debates about individual versus systemic contributions to disproportionality distract from the need to carefully craft and implement comprehensive intervention programs that can target a variety of sources of disparity. Thus, developing a needs assessment process to ensure that any and all strategies are tailored to address local needs may well be more important (and effective) than the choice of any single intervention.

Although there is scant evidence regarding the effect of any specific interventions on measured disproportionality, recommendations have been offered based on research related to best practices in instruction, education leadership, and academic and behavioral interventions, as well as research relating to culturally and linguistically responsive practice:

- *Teacher preparation.* Issues of cultural mismatch, suggesting that teachers may simply lack the knowledge and skills to successfully interact with students different from themselves (Ladson-Billings, 1995), highlight the importance of teacher training in culturally responsive pedagogy (Klingner et al., 2005; Trent et al., 2008).
- *Improved behavior management.* The most recent NRC panel identified inadequate classroom management as a factor increasing the risk for overreferral of minority students (Donovan & Cross, 2002). Culturally responsive behavioral supports have been identified as a promising method for addressing issues of classroom disruption and school dis-

cipline (Cartledge & Kourea, 2008; Klingner et al., 2005)

- *Prevention and early intervention.* The disproportionate representation of minorities in special education is due, in some measure, to social and demographic factors that concentrate risk factors in minority populations (Coutinho & Oswald, 2000). A primary prevention model, wherein universal supports are offered to all students and more specific supports, such as cultural brokering, are offered to students more at risk appears to be a promising model for addressing disproportionality (Serna, Forness, & Nielsen, 1998).
- *Prereferral intervention/response to intervention.* Heller et al. (1982) argued that "It is the responsibility of teachers in the regular classroom to engage in multiple educational interventions and to note the effects of such interventions on a child experiencing academic failure before referring the child for special education assessment" (p. 94). Guidance provided by the National Alliance of Black School Educators (NABSE) and the Council for Exceptional Children (NABSE, 2002) specifically charges school administrators with responsibility for selecting and implementing effective prereferral intervention systems in their schools.
- *Assessment.* Irrespective of the possibility of cultural bias in standardized tests, there appears to be ample opportunity for bias to occur during the process of special education eligibility decision making. Artiles and Trent (1994) suggested that a functional assessment model with its increased emphasis on context for understanding a student's academic or behavioral difficulty will provide a more culturally responsive means of assessment. Salend et al. (2002) add that factors related to culture, language, and experience must be distinguished from learning and behavior problems.
- *Family and community involvement.* To enable more active parent involvement, Artiles and Trent (1994) recommended that educators assess their own levels of cross-cultural competency. In particular, parents and families should be involved in the prereferral/response to intervention (RTI) process, and the

values of families and culture integrated into all special education decision-making processes (Harry, 2008; NABSE, 2002).

- *Policy and systems reform recommendations.* The multifaceted and longstanding nature of the disproportionality problem almost certainly necessitates systemic reform or policy change. Klingner et al. (2005) recommended examination of federal, state, district, and school policies to create culturally responsive educational systems, including such areas as school financing, the influence of high-stakes tests, teacher performance with culturally diverse populations, and teacher training in culturally competent pedagogy.

DISCUSSION AND CONCLUSIONS

Given that disproportionality in special education is grounded in a long history of inequity, it should not be surprising that the factors that maintain or sustain disproportionality are complex, embedded in social and institutional practices in ways that are not yet fully understood. Although a number of possible causes and maintaining conditions of special education disproportionality have been identified, in no area is the literature sufficient to accept any single cause as fully determinative of racial disparity. Claims of some researchers in the area of test bias notwithstanding (Jensen, 1980), bias in the process of assessment, and perhaps even in test items, has not been conclusively ruled out (Valencia & Suzuki, 2000). There are also abundant sources of inequitable educational opportunity in our nation's educational system (Kozol, 2005), but few studies have explored the impact of racial disparities in educational resources or instructional quality on rates of special education referral. Some plausible sources of bias in the special education eligibility decision-making process have been identified, but inconsistencies in that literature suggest that evidence for special education bias is mixed (Donovan & Cross, 2002). Factors contributing to racial and ethnic disparity may to some extent be grounded in a social reproductive model of schooling (Bowles & Gintis, 1976) in which educational professionals participate in institutional practices that, left unanalyzed, reinforce a status quo that maintains class- and race-based hierarchies.

The most fitting conclusion that can be drawn from the available literature predicting special education referral and eligibility is that disproportionality in special education is determined by a combination of forces both within and external to our educational system. It seems likely that future research will find complex and perhaps unexpected interactions among variables that have, to this point, been studied only in isolation or on a limited scale. It is reasonable to presume, for example, that students from economically disadvantaged backgrounds will exhibit academic or behavioral problems at a higher rate that make them more likely to be considered by teachers as appropriate candidates for special education services. Yet, it also seems likely that a teacher's *judgment* of appropriateness for referral is conditioned by that teacher's self-efficacy with respect to instructing or interacting with students from a class or cultural background different from his or her own. Further, institutional structures, sometimes at variance with state or federal policy, appear to channel the behaviors of the individuals within those institutions into habitual patterns that maintain existing inequities (Mehan, 1992). In short, any view that racial disparities are due solely to either individual characteristics or systems or individual bias must be regarded as highly simplistic. Ultimately, it is likely that more sophisticated research designs will demonstrate that racial disparities in special education eligibility and service are due to an interaction of student characteristics, teacher capabilities and attitudes, and unanalyzed sources of structural inequity and racial stereotype. The challenge in addressing inequity in special education is to recognize the simultaneous contribution of those multiple sources, and to design interventions that can respond to the full complexity of the problem.

It cannot be assumed that interventions that have been shown to work *on average* in improving educational outcomes will also be effective for groups that have been traditionally marginalized. Systemic strategies such as functional assessment (Sugai, Lewis-Palmer, & Hagan-Burke, 2000) and response-to-intervention models (Fuchs & Fuchs, 2006) hold some promise for addressing general institutional issues that may well result in over-identification of minority children and youth. Yet, simply improving the referral process for

students in general will not, in and of itself, guarantee an effect on the differential rates of special education referral for racially and ethnically diverse students. To ensure that the needs of those who are targeted in disproportionality interventions are met, it will be necessary to develop and implement approaches specifically designed to be *culturally responsive* (Klingner et al., 2005). In this case, culturally responsive interventions might be defined as those that are not only intended to improve academic and behavioral outcomes in general, but are also specifically designed and evaluated in terms of their capability to reduce measured inequity.

There have been very few investigations, however, of the impact of any intervention on disparate rates of special education service per se. One notable exception is Gravois and Rosenfield (2006), who provided evidence that a 2-year implementation of Instructional Consultation Teams was effective in reducing both total referrals to and placements in special education *and* disproportionality in referral and service. Until such time that certain interventions can be shown to reliably create reductions in racial disparities in special education identification, continued monitoring of disaggregated data is a critical component of all intervention efforts in order to ensure that systemic efforts are truly having an impact on the variable of concern—disproportionate representation by race and ethnicity.

Finally, the fact that a multiplicity of variables, across both general and special education, may contribute to disproportionate representation has important implications for the implementation of special education policy. In promulgating IDEA 2004, Congress deemed disproportionate representation that is the result of inappropriate identification sufficiently important as to constitute a key monitoring priority (IDEA 2004, 34 CFR 300.600(d)(3)). There may be some temptation to restrict the interpretation of “inappropriate identification” so as to focus primarily on special education policies, practices, and procedures. Yet, the data clearly indicate that racial and ethnic disparities in special education are not solely a special education problem, but are also rooted in a number of sources of educational inequity in general education, including curriculum (Ferri & Connor, 2005); classroom management

(Donovan & Cross, 2002); teacher quality (Darling-Hammond, 2004; Peske & Haycock, 2006); and resource quality and availability (Barton, 2003; Kozol, 2005). Students who are referred to special education because they have failed to receive quality instruction or effective classroom management have been inappropriately identified as much as if they were given an inappropriate test as part of special education assessment.

Brown v. Board of Education (1954) indeed represented a key milestone in the struggle for equity of opportunity for all children (Blanchett, Mumford, & Beachum, 2005; Smith & Kozleski, 2005). Yet, it is important to understand that *Brown* represented only the beginning of the end of institutionalized and legal segregation in the United States. It was not until 1969, in *Alexander v. Holmes County Board of Education*, that the Supreme Court set aside the notion of “due deliberate speed” and set deadlines for the end of educational segregation (Lowery & Marszalek, 1992). Thus, the period of American history characterized by an absence of state-sponsored segregation, discrimination, and oppression represents only about one tenth of the time that governmental policies supported a clearly defined and explicit racial hierarchy. Nor has the progress since *Brown* been entirely consistent: Policy changes since 1980 have led some to question to what extent the promises of that decision have been fulfilled (Blanchett et al., 2005; Orfield & Eaton, 1996). In the face of a nascent and perhaps still tenuous national commitment to equity, it should not be surprising that vestiges of America’s history of race remain embedded in our consciousness, actions, and institutions. There is still abundant work that remains to be done if such vestiges are to be once and for all erased.

REFERENCES

- Abedi, J. (2004). The No Child Left Behind Act and English language learners: Assessment and accountability issues. *Educational Researcher*, 33(1), 4–14.
- Ainsworth, J. W. (2002). Why does it take a village? The meditation of neighborhood effects on educational achievement. *Social Forces*, 81(1), 117–152.
- Alexander v. Holmes County Board of Education*, 396 U.S. 1218 (1969).

- Artiles, A. J. (2003). Special education's changing identity: Paradoxes and dilemmas in views of culture and space. *Harvard Educational Review*, 73, 164–202.
- Artiles, A. J., Rueda, R., Salazar, J. J., & Higareda, I. (2002). English language learner representation in special education in California urban school districts. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp.117–135) Cambridge, MA: Harvard Education Publishing Group.
- Artiles, A. J., & Trent, S. C. (1994). Overrepresentation of minority students in special education: A continuing debate. *The Journal of Special Education*, 27(4), 410–437.
- Bahr, M., Fuchs, D., Stecker, P., & Fuchs, L. (1991). Are teachers' perceptions of difficult-to-teach students racially biased? *School Psychology Review*, 20(4), 599–608.
- Barrera, M. (2006). Roles of definitional and assessment models in the identification of New or Second Language Learners of English for special education. *Journal of Learning Disabilities*, 39, 142–156.
- Barnett, W. S. (1995). Long term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, 5(3), 25–50.
- Barton, P. E. (2003). *Parsing the achievement gap: Baselines for tracking progress*. Princeton, NJ: Educational Testing Service.
- Bersoff, D. N. (1981). Testing and the law. *American Psychologist*, 36, 1047–1055.
- Blanchett, W. J., Mumford, V., & Beachum, F. (2005). Urban school failure and disproportionality in a post-Brown era: Benign neglect of the Constitutional rights of students of color. *Remedial and Special Education*, 26(2), 70–81.
- Blaustein, A. P., & Zangrando, R. L. (Eds.). (1968). *Civil rights and the Black American: A documentary history*. New York: Clarion Books.
- Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America*. New York: Basic Books.
- Brooks-Gunn, J., & Duncan, G. J. (1997). The effects of poverty on children. *The Future of Children*, 7(2), 55–71.
- Brown, R. T., Reynolds, C. R., & Whitaker, J. S. (1999). Bias in mental testing since *Bias in Mental Testing*. *School Psychology Quarterly*, 14, 208–238.
- Brown v. Board of Education, 347 U.S. 483 (1954).
- Caldas, S. J., & Bankston, C. L. (1999). Multilevel examination of student, school, and district-level effects on academic performance. *Journal of Educational Research*, 93(2), 91–100.
- Cartledge, G., & Kourea, L. (2008). Culturally responsive classrooms for culturally diverse students with and at risk for disabilities. *Exceptional Children*, 74, 351–371.
- Children's Defense Fund. (1975). *School suspensions: Are they helping children?* Cambridge, MA: Washington Research Project.
- Chinn, P. C., & Hughes, S. (1987). Representation of minority students in special education classes. *Remedial and Special Education*, 8, 41–46.
- Cole, N. S. (1981). Bias in testing. *American Psychologist*, 36, 1067–1077.
- Coutinho, M. J., & Oswald, D. P. (2000). Disproportionate representation in special education: A synthesis and recommendations. *Journal of Child and Family Studies*, 9(2), 135–156.
- Coutinho, M. J., & Oswald, D. P. (2004). *Disproportionate representation of culturally and linguistically diverse students in special education: Measuring the problem*. Practitioner Brief Series: National Center for Culturally Responsive Educational Systems.
- Coutinho, M. J., Oswald, D. P., & Best, A. M. (2002). The influence of sociodemographics on the disproportionate identification of minority students as having learning disabilities. *Remedial and Special Education*, 23, 49–59.
- Darling-Hammond, L. (2004). Inequity and the right to learn: Access to qualified teachers in California's public schools. *Teachers College Record*, 106(10), 1936–1966.
- Davies, H., Crombie, I., & Tavakoli, M. (1998). When can odds ratios mislead? *British Medical Journal*, 316, 989–991.
- Delgado, R., & Stefancic, J. (2002). *Critical race theory: The cutting edge* (2nd ed.). Philadelphia: Temple University Press.
- Delpit, L. D. (1995). *Other people's children: Cultural conflict in the classroom*. New York: New Press.
- Diana v. California State Board of Education, No. C-70, RFT, (N.D. Cal. 1970).
- Donovan, M. S., & Cross, C. T. (Eds.). (2002). *Minority students in special and gifted education*. Washington, DC: National Academies Press.
- Dunn, L. M. (1968). Special education for the mildly retarded—is much of it justifiable? *Exceptional Children*, 23, 5–21.
- Ferguson, A. A. (2001). *Bad boys: Public schools and the making of Black masculinity*. Ann Arbor: University of Michigan Press.
- Ferri, B. A., & Connor, D. J. (2005). In the shadow of Brown: Special education and overrepresentation of

- students of color. *Remedial and Special Education*, 26, 93–100.
- Fierros, E. G., & Conroy, J. W. (2002). Double jeopardy: An exploration of restrictiveness and race in special education. In D. J. Losen, & G. Orfield (Eds.), *Racial inequity in special education* (pp. 39–70). Cambridge, MA: Harvard Education Press.
- Finn, J. D. (1982). Patterns in special education placement as revealed by the OCR survey. In K. A. Heller, W. H. Holtzman, & S. Messick (Eds.), *Placing children in special education: A strategy for equity* (pp. 322–381). Washington, DC: National Academy of Sciences National Academy Press.
- Ford, D. Y., Grantham, T. C., & Whiting, G. W. (2008). Culturally and linguistically diverse students in gifted education: Recruitment and retention issues. *Exceptional Children*, 74, 289–306.
- Freedle, R. O. (2003). Correcting the SAT's ethnic and social-class bias: A method for reestimating SAT scores. *Harvard Educational Review*, 73(1), 1–43.
- Fuchs, D., & Fuchs, L. S. (1986). Test procedure bias: A meta analysis of examiner familiarity effects. *Review of Educational Research*, 56, 243–262.
- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93–99.
- Gottlieb, J., Gottlieb, B. W., & Trongone, S. (1991). Parent and teacher referrals for a psychoeducational evaluation. *Journal of Special Education*, 25(2), 155–167.
- Gottlieb, J. M., Alter, M., Gottlieb, B. W., & Wishner, J. (1994). Special education in urban America: It's not justifiable for many. *Journal of Special Education*, 27, 453–465.
- Gravois, T. A., & Rosenfield, S. A. (2006). Impact of instructional consultation teams on the disproportionate referral and placement of minority students in special education. *Remedial and Special Education*, 27(1), 42–52.
- Greenwood, C. R., Hart, B., Walker, D., & Risley, T. R. (1994). The opportunity to respond revisited: A behavioral theory of developmental retardation and its prevention. In R. Gardner III et al. (Eds.), *Behavior analysis in education: Focus on measurably superior instruction* (pp. 213–223). Pacific Grove, CA: Brooks/Cole.
- Gregory, J. F. (1997). Three strikes and they're out: African American boys and American schools' responses to misbehavior. *International Journal of Adolescence and Youth*, 7(1), 25–34.
- Guadalupe Organization v. Temple Elementary School District #3, No. 71-435 (D. Ariz, 1972).
- Harmer, H. (Ed.). (2001). *The Longman companion to slavery, emancipation, and civil rights*. Harlow, UK: Longman.
- Harrington, G. M. (1975). Intelligence tests may favour the majority groups in a population. *Nature*, 258, 708–709.
- Harry, B. (1994). *The disproportionate representation of minority students in special education: Theories and recommendations*. Alexandria, VA: National Association of State Directors of Special Education.
- Harry, B. (2008). Collaboration with culturally and linguistically diverse families: Ideal versus reality. *Exceptional Children*, 74, 372–388.
- Harry, B., & Klingner, J. (2006). *Why are so many minority students in special education? Understanding race and disability in schools*. New York: Teachers College Press.
- Harry, B., Klingner, J., Sturges, K. M., & Moore, R. F. (2002). Of rocks and soft places: Using qualitative methods to investigate disproportionality. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 71–92). Cambridge, MA: Harvard Education Press.
- Harry, B., Klingner, J. K., & Hart, J. (2005). African American families under fire: Ethnographic views of family strengths. *Remedial and Special Education*, 26, 101–112.
- Heller, K. A., Holtzman, W. H., & Messick, S. (Eds.). (1982). *Placing children in special education: A strategy for equity*. Washington, DC: National Academy Press.
- Herrnstein, R. J., & Murray, C. (1994). *The bell curve: Intelligence and class structure in American life*. New York: Free Press.
- Hickman, J. A., & Reynolds, C. R. (1987). Are race differences in mental test scores an artifact of psychometric methods?: A test of Harrington's experimental model. *Journal of Special Education*, 20, 409–430.
- Hobson v. Hansen, 269 F. Supp. 401 (D.C. Cir. 1967).
- Hodgkinson, H. L. (1995). What should we call people? Race, class, and the census for 2000. *Phi Delta Kappan*, 77, 173–179.
- Holtzman, M. (2004). *Public education and Black male students: A state report card*. Cambridge, MA: The Schott Foundation for Public Education.
- Hosp, J. L., & Reschly, D. J. (2003). Referral rates for intervention and assessment: A meta-analysis of racial differences. *Journal of Special Education*, 37, 67–81.
- Hosp, J. L., & Reschly, D. J. (2004). Disproportionate representation of minority students in special educa-

- tion: Academic, demographic, and economic predictors. *Exceptional Children*, 70, 185–199.
- Huebner, E. S. (1985). The influence of rural, suburban, and urban student background and school setting upon psychoeducational decisions. *School Psychology Review*, 14(2), 239–241.
- Individuals With Disabilities Education Act (IDEA), 20 U.S.C. §§ 1401 *et seq.*
- Individuals With Disabilities Education Act Amendments of 1997, Pub L. No. 105-17, 105th Cong., 1st sess.
- Individuals With Disabilities Education Act Regulations, 34 C.F.R. 300.1 *et seq.*
- Individuals With Disabilities Education Improvement Act of 2004, Pub. L. No. 108-446 (2004).
- Individuals With Disabilities Education Improvement Act of 2004, 118 Stat. 2739.
- Jackson, J. P., & Weidman, N. M. (2006). *Race, racism, and science: Social impact and interaction*. New Brunswick, NJ: Rutgers University Press.
- Jencks, C., & Phillips, M. (Eds.). (1998). *The Black-White test score gap*. Washington, DC: Brookings Institution Press.
- Jensen, A. R. (1980). *Bias in mental testing*. New York: Free Press.
- Johnson, R. S. (2002). *Using data to close the achievement gap: How to measure equity in our schools*. Thousand Oaks, CA: Corwin Press.
- Joseph, L. M., & Ford, D. Y. (2006). Nondiscriminatory assessment: Considerations for gifted education. *Gifted Child Quarterly*, 50(1), 42–51.
- Katznelson, I. (2005). *When affirmative action was White: An untold history of racial inequality in twentieth century America*. New York: W. W. Norton & Co.
- Kidder, W. C., & Rosner, J. (2002) How the SAT creates “built-in headwinds”: An educational and legal analysis of disparate impact. *Santa Clara Law Review*, 43(1), 131–211.
- King, J. E. (1991). Dysconscious racism: Ideology, identity, and the miseducation of teachers. *Journal of Negro Education*, 60(2), 133–146.
- King, J. E. (Ed.). (2005). *Black education: A transformative research and action agenda for the new century*. Mahwah, NJ: Lawrence Erlbaum Associates for the American Educational Research Association.
- Klingner, J. K., Artiles, A. J., Kozleski, E., Harry, B., Zion, S., Tate, W. et al. (2005). Addressing the disproportionate representation of culturally and linguistically diverse students in special education through culturally responsive educational systems. *Education Policy Analysis Archives*, 13(38), 1–39.
- Klingner, J. K., Artiles, A. J., & Mendez Barletta, L. (2006). English Language Learners who struggle with reading: Language acquisition or LD? *Journal of Learning Disabilities*, 39, 108–128.
- Kozol, J. (1991). *Savage inequalities*. New York: Crown.
- Kozol, J. (2005). *The shame of the nation: The restoration of apartheid schooling in America*. New York: Crown.
- Kramer, R. A., Allen, L., & Gergen, P. J. (1995). Health and social characteristics and children’s cognitive functioning: Results from a national cohort. *American Journal of Public Health*, 85(3), 312–318.
- Ladner, M. & Hammons, C. (2001). Special but unequal: Race and special education. In C. E., Finn Jr., A. J. Rotherham, & C. R. Hokanson Jr. (Eds.), *Rethinking special education for a new century* (pp. 85–110). Washington, DC: The Progressive Policy Institute & The Thomas B. Fordham Foundation.
- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children*. San Francisco: Jossey-Bass.
- Ladson-Billings, G. (1995). But that’s just good teaching! The case for culturally relevant pedagogy. *Theory into Practice*, 34(3), 159–165.
- Ladson-Billings, G., & Tate, W. (1995). Toward a critical race theory of education. *The Teachers College Record*, 97(1), 47–68.
- Larry P. v. Riles, 343F. Supp. 1306 (N.D. Cal. 1972), *aff’d* 502 F. 2d 963 (9th Cir. 1974); 495 F. Supp. 926 (N.D. Cal. 1979), *aff’d* 793 F. 2d 969 (9th Cir. 1984).
- Losen, D. J., & Orfield, G. (2002). *Racial inequity in special education*. Cambridge, MA: Harvard Education Press.
- Losen, D. J., & Welner, K. G. (2001). Disabling discrimination in our public schools: Comprehensive legal challenges to inappropriate and inadequate special education services for minority children. *Harvard Civil Rights—Civil Liberties Law Review*, 36(2), 407–460.
- Lowery, C. D., & Marszalek, J. F. (1992). *Encyclopedia of African American civil rights: From emancipation to the present*. Westport, CT: Greenwood Press.
- MacMillan, D. L., & Lopez, M. F. (1996). Comparison of students nominated for prereferral interventions by ethnicity and gender. *Journal of Special Education*, 30(2), 133–152.
- MacMillan, D. L., & Reschly, D. J. (1998). Overrepresentation of minority students: The case for greater specificity or reconsideration of the variables examined. *Journal of Special Education*, 32, 15–24.
- Madaus, G. F., & Clarke, M. (2001). The adverse impact of high stakes testing on minority students:

- Evidence from 100 years of test data. In G. Orfield & M. Kornhaber (Eds.), *Raising standards or raising barriers: Inequality and high stakes testing in public education* (pp. 85–106). New York: The Century Foundation
- McLeskey, J., Henry, D., & Axelrod, M. I. (1999). Inclusion of students with learning disabilities: An examination of data from reports to congress. *Exceptional Children*, 66, 55–66.
- McLloyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185–204.
- Mehan, H. (1992). Understanding inequity in schools: The contribution of interpretive studies. *Sociology of Education*, 65, 1–20.
- Mehan, H., Herrweck, A., & Meihls, J. L. (1986). *Handicapping the handicapped: Decision making in students' educational careers*. Stanford, CA: Stanford University Press.
- Mercer, J. (1973). *Labeling the mentally retarded*. Berkeley: University of California Press.
- Mills v. Board of Education of the District of Columbia, 384 F. Supp. 866 (1972).
- National Alliance of Black School Educators. (2002). *Addressing over-representation of African American students in special education: The prereferral intervention process*. Washington, DC: National Alliance of Black School Educators.
- National Association of Secondary School Principals. (2000, February). *Statement on civil rights implications of zero tolerance programs*. Testimony presented to the United States Commission on Civil Rights, Washington, D.C.
- National Center on Culturally Responsive Educational Systems (NCCRESt). (2006). Disproportionality by race and disability 2003–2004 [Data file]. Retrieved February 23, 2006, from National Center on Culturally Responsive Educational Systems Web site: <http://nccrest.eddata.net/data/index.php?id=47&f1=2003-2004&f2=Hispanic>
- Oakes, J. (1982). The reproduction of inequity: The content of secondary school tracking. *The Urban Review*, 14, 107–120.
- Oakes, J., Ormseth, T., Bell, R., & Camp, P. (1990). *Multiplying inequalities: The effects of race, social class, and tracking on opportunities to learn mathematics and science*. Santa Monica, CA: Rand.
- Orfield, G., & Eaton, S. E. (1996). *Dismantling desegregation: The quiet reversal of Brown v. Board of Education*. New York: New Press.
- Ortiz, A. A. (1997). Learning disabilities occurring concomitantly with linguistic differences. *Journal of Learning Disabilities*, 30, 321–332.
- Oswald, D., Coutinho, M. J., & Best, A. M. (2002). Community and school predictors of overrepresentation of minority children in special education. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 1–13). Cambridge, MA: Harvard Civil Rights Project.
- Oswald, D. P., Coutinho, M. J., Best, A. M., & Nguyen, N. (2001). Impact of sociodemographic characteristics on the identification rates of minority students as having mental retardation. *Mental Retardation*, 39(5), 351–367.
- Oswald, D. P., Coutinho, M. J., Best, A. M., & Singh, N. N. (1999). Ethnic representation in special education: The influence of school related economic and demographic variables. *The Journal of Special Education*, 32, 194–206.
- Parrish, T. (2002). Racial disparities in the identification, funding, and provision of special education. In D. J. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 15–37). Cambridge, MA: Harvard Education Press.
- PASE (Parents in Action on Special Education v. Hannon, 506 F. Supp. 831 (D.N.D.I. 1980).
- Patton, J. M. (1998). The disproportionate representation of African Americans in special education: Looking behind the curtain for understanding and solutions. *The Journal of Special Education*, 32(1), 25–31.
- Peske, H. G., & Haycock, K. (2006). *Teaching inequity: How poor and minority students are shortchanged on teacher quality*. Washington, DC: Education Trust.
- Plessy v. Ferguson, 163 U.S. 537 (1896).
- Prieto, A. G., & Zucker, S. H. (1981). Teacher perception of race as a factor in the placement of behaviorally disordered children. *Behavioral Disorders*, 7, 34–38.
- Raffaele Mendez, L. M., & Knoff, H. M. (2003). Who gets suspended from school and why: A demographic analysis of schools and disciplinary infractions in a large school district. *Education and Treatment of Children*, 26, 30–51.
- Rausch, M. K., & Skiba, R. J. (2006). *Examining patterns of disciplinary disproportionality by disability status and racial group*. Bloomington, IN: Center for Evaluation & Education Policy.
- Rebell, M. A. (1999). Fiscal equity litigation and the democratic imperative. *Equity and Excellence in Education*, 32, 5–18.
- Reschly, D. J. (1996). *Disproportionate minority representation in general and special education programs:*

- Patterns, issues, and alternatives*. Des Moines: Iowa Department of Education Bureau of Special Education.
- Reynolds, C. R. (2000). Why is psychometric research on bias in mental testing so often ignored? *Psychology, Public Policy, and Law*, 6, 144–150.
- Ritter, M. K., & Skiba, R. J. (2006). *Local equity action development (LEAD)*. (Education Policy Brief Vol. 4, No. 9). Bloomington, IN: Center for Evaluation & Education Policy.
- Rury, J. L. (2002). *Education and social change: Themes in the history of American schooling*. Mahwah, NJ: Lawrence Erlbaum.
- Salend, S. J., Garrick Duhaney, L. M., & Montgomery, W. (2002). A comprehensive approach to identifying and addressing issues of disproportionate representation. *Remedial and Special Education*, 23(5), 289–299.
- Serna, L. A., Forness, S. R., & Nielsen, M. E. (1998). Intervention versus affirmation: Proposed solutions to the problem of disproportionate minority representation in special education. *Journal of Special Education*, 32(1) 48–51.
- Serwatka, T. S., Deering, S., & Grant, P. (1995). Disproportionate representation of African Americans in emotionally handicapped classes. *Journal of Black Studies*, 25, 492–506.
- Shaw, S. R., & Braden, J. P. (1990). Race and gender bias in the administration of corporal punishment. *School Psychology Review*, 19, 378–383.
- Sheets, R. H. (2005). *Diversity pedagogy: Examining the role of culture in the teaching-learning process*. Boston: Pearson/Allyn & Bacon.
- Shepard, L. A. (1987). The case for bias in tests of achievement and scholastic aptitude. In S. Modgil & C. Modgil (Eds.), *Arthur Jensen: Consensus and controversy* (pp. 177–190). New York: Falmer Press
- Shinn, M. R., Tindal, G. A., & Spira, D. A. (1987). Special education referrals as an index of teacher tolerance: Are teachers imperfect tests? *Exceptional Children*, 54, 32–40.
- Skiba, R. J., Bush, L. D., & Knesting, K. K. (2002). Culturally competent assessment: More than non-biased tests. *Journal of Child and Family Studies*, 11(1), 61–78.
- Skiba, R. J., Michael, R. S., Nardo, A. C., & Peterson, R. (2002). The color of discipline: Sources of racial and gender disproportionality in school punishment. *Urban Review*, 34, 317–342.
- Skiba, R. J., Poloni-Staudinger, L., Gallini, S., Simmons, A. B., & Feggins-Azziz, L. R. (2006b). Disparate access: The disproportionality of African American students with disabilities across educational environments. *Exceptional Children*, 72, 411–424.
- Skiba, R. J., Poloni-Staudinger, L., Simmons, A. B., Feggins, L. R., & Chung, C. G. (2005). Unproven links: Can poverty explain ethnic disproportionality in special education? *The Journal of Special Education*, 39(3), 130–144.
- Skiba, R. J., & Rausch, M. K. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 1063–1089). Mahwah, NJ: Lawrence Erlbaum.
- Skiba, R. J., Simmons, A., Ritter, S., Kohler, K., Henderson, M., & Wu, T. (2006a). The context of minority disproportionality: Practitioner perspectives on special education referral. *Teachers College Record*, 108(7), 1424–1459.
- Sleeter, C. E., & Grant, C. A. (1991). Race, class, gender and disability in current textbooks. In M. W. Apple & L. K. Christian-Smith (Eds.), *The politics of the textbook* (pp. 78–110). New York: Routledge & Chapman-Hall.
- Smedley, A. (2007). *Race in North America: Origin and evolution of a worldview* (3rd ed.). Boulder, CO: Westview Press.
- Smith, A., & Kozleski, E. B. (2005). Witnessing Brown: Pursuit of an equity agenda in American education. *Remedial and Special Education*, 26(5), 270–280.
- Sugai, G., Lewis-Palmer, T., & Hagan-Burke, S. (2000). Overview of the functional behavioral assessment process. *Exceptionality*, 8(3), 149–160.
- Terman, L. M. (1916). *The measurement of intelligence*. Boston: Houghton Mifflin.
- Tobias, S., Cole, C., Zibrin, M., & Bodlakova, V. (1982). Teacher–student ethnicity and recommendations for special education referrals. *Journal of Educational Psychology*, 74(1), 72–76.
- Tobias, S., Zibrin, M., & Menell, C. (1983). Special education referrals: Failure to replicate student-teacher ethnicity interaction. *Journal of Educational Psychology*, 75, 705–707.
- Tomlinson, J. R., Acker, N., Canter, A., & Lindborg, S. (1978). Minority status, sex, and school psychological services. *Psychology in the Schools*, 14(4), 456–460.
- Townsend, B. L. (2000). The disproportionate discipline of African American learners: Reducing school suspensions and expulsions. *Exceptional Children*, 66, 381–391.

- Trent, S. C., Kea, C. D., Oh, K., (2008). Preparing preservice educators for cultural diversity: How far have we come? *Exceptional Children*, 74, 328–350.
- Trepagnier, B. (2006). *Silent racism: How well-meaning White people perpetuate the racial divide*. Boulder, CO: Paradigm.
- U.S. Census Bureau. (2001). *Poverty in the United States: 2002* (Series P60-222). Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, Office of Special Education Programs (OSEP). (2002). *24th Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, Office of Special Education Programs (OSEP). (2006). *26th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2004*. Washington, DC: Westat.
- U.S. Department of Education, Office of Special Education Programs (OSEP). *Disproportionality and Over-identification* [Policy Brief]. Retrieved February 27, 2007 from <http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CTopicalBrief%2C7%2C>
- Valencia, R. R., & Suzuki, L. A. (2000). *Intelligence testing and minority students: Foundations, performance factors, and assessment issues*. Thousand Oaks, CA: Sage.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1997). Learning influences. In H. J. Walberg & G. D. Haertel (Eds.), *Psychology and educational practice* (pp. 199–211). Berkeley, CA: McCutchan.
- Westat. (2003). *Special populations study final report*. Washington, DC: United States Department of Education, Office of Special Education Programs.
- Westat. (2004). *Summary of task force meeting on racial/ethnic disproportionality in special education*. Washington, DC: Author.
- Westat. (2005). *Methods for assessing racial/ethnic disproportionality in special education: A technical assistance guide*. Washington, DC: U.S. Department of Education, Office of Special Education Programs. Retrieved October 5, 2006, from <https://www.ideadata.org/docs/Disproportionality%20Technical%20Assistance%20Guide.pdf>
- Williams, P. (2007). *Disproportionality and overrepresentation. Building the legacy: Training curriculum on IDEA 2004* (Module 5 in the National Dissemination Center for Children with Disabilities (NICHCY). Washington, DC: NICHCY. Retrieved July 20, 2007, from <http://www.nichcy.org/training/contents.asp#toc>
- Wright, P., & Santa Cruz, R. (1983). Ethnic composition of special education programs in California. *Learning Disability Quarterly*, 6, 387–394.
- Wu, S. C., Pink, W. T., Crain, R. L., & Moles, O. (1982). Student suspension: A critical reappraisal. *The Urban Review*, 14, 245–303.
- Ysseldyke, J. E., Algozzine, B., Richey, L., & Graden, J. (1982). Declaring students eligible for learning disability services: Why bother with the data? *Learning Disability Quarterly*, 5, 37–44.
- Zhang, D., & Katsiyannis, A. (2002). Minority representation in special education: A persistent challenge. *Remedial and Special Education*, 23, 180–187.

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