One Size Still Does Not Fit All
in Specific Learning Disability
Assessment Across Ethnic Groups

Tamara D. Warner, Duane E. Dede, Cynthia W. Garvan, and Timothy W. Conway

Abstract

The use of IQ scores and discrepancy formulas for identifying specific learning disabilities (SLD) has been widely discredited by prominent researchers for more than a decade. Nevertheless, the overwhelming majority of state policies still specify the use of discrepancy formulas, including the simple difference method, which is psychometrically inferior to regression-based methods. This study compares the use of a minimum IQ cutoff score and a simple difference method versus a regression-based method for identifying SLD in a sample of African American and European American full-time college students (N = 117). Replicating the findings from previous studies using typically achieving children, typically achieving adults, and school-age children with SLD, this study adds to the chorus of voices criticizing the use of outdated assessment practices that can have deleterious effects for individuals with SLD. The implications for legislative policy are discussed in the context of the historical overrepresentation of African Americans in all special education categories except SLD and the increased access to higher education that students with SLD have gained during the past decade.

The number of first-time, full-time students with self-reported learning disabilities (LD) enrolling in U.S. colleges and universities has grown considerably during the past 15 years (Henderson, 1992, 1995, 1999). In 1998, the percentage of full-time first-year college students with LD was 3.5%, up from 1.2% in 1988 (Henderson, 1999). This figure, weighted for the total enrollment of new first-year college students nationwide, translates into almost 58,000 new full-time students with self-reported LD in postsecondary institutions in 1998 (Henderson, 1998). Unfortunately, however, research on adults with LD has not kept pace with the trend in college enrollment. Although significant gains have been made in the past decade with the increased awareness of the persistence of the problems associated with LD beyond the school-age years, data on adults with LD still lag far behind data on children with LD (Gajar, 1992).

An examination of the issues related to African Americans with specific learning disabilities (SLD) in college is difficult, because data on the ethnic composition of the increasing number of college students with SLD are not readily available. One way to approach this problem is to consider the representation of African Americans in SLD programs at the elementary and secondary levels. Since the 1979 landmark case of Larry P. v. Wilson Riles, it has been well known that African American children are overrepresented in low-achieving special education categories, most notably in mental retardation. Oddly, the U.S. Department of Education has not consistently published data about the ethnic composition of students with various disabilities, and the 1998–1999 school year marked the first time that states were required to report the ethnicity of children served under the Individuals with Disabilities Education Act (IDEA) of 1990 (U.S. Department of Education, 1998). Data available in the mid-1990s indicated that African Americans continued to be overrepresented in the category of mental retardation but were underrepresented among students with LD (U.S. Department of Education, 1994). However, more recent information has shown that the percentage of the special education population composed of African American students ages 6 to 21 exceeds the resident population percentage for 9 of 13 disability categories, including SLD (U.S. Department of Education, 2000). During the 1998–1999 school year, African Americans constituted 14.8% of the resident population but 18.3% of students ages 6 to 21 with SLD (U.S. Department of Education, 2000). At the state level, the data vary significantly, with some states showing a more proportionate representation of African Americans in the SLD category. Considering that African Americans are underrepresented in the college population in general (Gay, 1993), it seems...
likely that African Americans are also underrepresented among students with SLD in higher education.

The shift from a disproportionately low to a disproportionately high representation of African American students in elementary and secondary SLD placements is intriguing, particularly as opportunities have increased for students with SLD to pursue post-secondary education. Researchers have suggested that this problem could be the result of bias in the referral process, the assessment process, or both. In the 1980s, researchers debated whether there was a shift in the classification of African American students in special education from mental retardation to SLD (see Bronson, 1983; Chinn & Hughes, 1987; Collins & Camblin, 1983; Gregory, Shanahan, & Walberg, 1985; Tucker, 1980; Wright & Santa Cruz, 1983). It now appears, however, that the growing overrepresentation of African Americans in SLD placements has come in addition to rather than at the expense of placements in other low-achieving special education categories.

**Minimum IQ and Discrepancy Criteria in SLD Assessment**

IDEA defines an SLD as a psychological processing deficit accompanied by a “severe discrepancy” between intellectual ability and academic achievement. However, because the law did not specify how to operationalize a severe discrepancy, individual states were left to develop their own definitions. Thus, the inconsistency in the representation of African Americans with SLD across states may result from the lack of uniformity among state guidelines.

Surveys of state methodologies have examined the use of intelligence and discrepancy components in the state definitions and criteria for identifying SLD. The latest published survey has indicated that 26% of all states include intelligence in their definition and criteria for SLD, a proportion that has remained relatively stable since 1990 (C. D. Mercer, Jordan, Allsopp, & Mercer, 1996). An earlier survey found that 29% of all states specify a minimum cutoff score below which a student would not qualify for a classification of SLD—a dramatic increase from the 4% found only 4 years earlier and a reversal of the trend toward fewer states using minimum IQ criteria found in previous surveys (Frankenberger & Fronzaglio, 1991). In terms of a discrepancy component, the overwhelming majority of states (98%) have adopted the federal discrepancy criteria in their definitions of eligibility criteria for SLD. This proportion represents a significant increase from previous surveys (Frankenberger & Fronzaglio, 1991; C. D. Mercer, King-Sears, & Mercer, 1990).

The methods used by states for operationalizing the discrepancy component and the criteria for determining the significance of a discrepancy vary considerably. About one third (32%) of all states specify the use of a regression formula to determine SLD eligibility, whereas an equal proportion (32%) have no statement about discrepancy operationalization at all (C. D. Mercer et al., 1996). Frankenberger and Fronzaglio (1991) found that the most frequently recommended method was the simple difference method, and the criterion for significance ranged from 1 to 2 SD. Still, only 42% of all states specify the use of standard scores, which is required to implement the simple difference method (C. D. Mercer et al., 1996). States not using either a simple difference or a regression-based method generally rely on grade-level deviations or expectancy formulas (Frankenberger & Fronzaglio, 1991; C. D. Mercer et al., 1996).

That the use of minimum IQ scores and the simple difference method are biased against African Americans has been demonstrated in at least two studies—one in a hypothetical sample of typical children (Braden, 1987), the other in a sample of children referred for SLD evaluation (McLeskey, Walton, & Wornhoff, 1990). Both studies showed that the use of a minimum IQ score of 1 SD below the mean excluded significantly more African Americans than European Americans from consideration for a diagnosis of SLD. Similarly, both studies revealed that a significantly smaller proportion of African Americans met the severe discrepancy criteria for SLD when a simple difference method was used than when a more methodologically sound regression-based method was used. In contrast, there was no significant difference in the proportion of European Americans identified as meeting the severe discrepancy criteria using either of the two methods. The problem with the use of a minimum IQ score stems from the fact that the mean IQ score for African Americans is significantly lower than that of European Americans. On average, African Americans obtain IQ scores that are 1 SD lower than those of their European American peers. This is a robust finding that has been demonstrated in typically achieving children, children with SLD, and typical adults (Kaufman & Doppelt, 1976; Kistner, Osborne, & Le Verrier, 1988; Reynolds, Chastain, Kaufman, & McLean, 1987).

The use of minimum IQ scores is based in part on the exclusionary component of the IDEA definition, which specifies that learning problems cannot be the result of mental retardation. More important, the use of minimum IQ scores assumes that the distribution of IQ scores for all groups is similar to that for European Americans, who have composed the majority of normative samples. If this assumption were true, a minimum cutoff score of 1 SD below the mean would theoretically result in 16% of all individuals being excluded from evaluation for SLD. For African Americans, however, such a minimum IQ score could potentially exclude up to 50% of African Americans from SLD diagnosis (see Figure 1).

The numerous problems with using IQ and other cognitive ability tests to assess African Americans have been articulated by several researchers (Dent,
The inclusion of African Americans and other minorities within the normative sample for a test does not justify its use with those populations, because the minority group scores will not cluster within the distribution in large enough numbers to have any influence on the norms (Dent, 1996). The lack of demonstrated cultural equivalence—that is, whether the tests measure the same constructs for those who differ from the largely European American normative sample in race, culture, or socioeconomic class—is another significant problem (Helms, 1992, 1997). These are only two potential sources of bias related to the test construction process and do not include other sources of bias that are associated with test administration and interpretation.

The problem inherent in the simple difference method stems from the significant correlation between IQ and achievement scores, which has been estimated to average .60. Assuming that the IQ test is administered first, it is expected that an individual's achievement score will, on average, regress to the mean group IQ score (McLeod, 1979). As a result of this phenomenon, individuals with above-average IQs are more likely to be overdiagnosed as having SLD, whereas those with below-average IQs are more likely to be underdiagnosed as having SLD (Reynolds, 1990). Again, considering the significant difference between the mean IQ scores for African Americans and European Americans (see Figure 1), African Americans are much more likely to be underdiagnosed by the simple difference method than European Americans.

An alternative to the simple difference method that has been repeatedly suggested in the literature is the regression-based method of diagnosing SLD. This method, which controls for the regression of achievement scores to the mean IQ score, is considered more psychometrically sound (Cone & Wilson, 1981; Reynolds, 1990). After a large increase in the late 1980s, the number of state education agencies recommending a regression-based formula for determining a severe discrepancy in SLD evaluation increased only 4% between 1990 and 1995 (Frankenberger & Fronzaglio, 1991; C. D. Mercer et al., 1996).

**Study Purpose and Hypotheses**

The aim of the present study was to replicate in a sample of adults who had been clinic-referred for SLD evaluation the findings of previous studies that the use of a minimum IQ score or of a simple difference method have differential effects in terms of the ethnic representation of individuals who are eligible for and meet a severe discrepancy criterion for the diagnosis of SLD. Several hypotheses were put forward. First, we hypothesized that the mean IQ scores for the clinic-referred African American adults would be significantly below those of the clinic-referred European American adults, and that as a result, a minimum cutoff score of 1 SD below the normative mean would disqualify a significantly larger proportion of African Americans than European Americans from a diagnosis of SLD. Second, we hypothesized that the simple difference method would identify a significantly smaller proportion of African Americans as meeting the severe discrepancy criteria for SLD than a regression-based method. Third, we expected that there would be no difference between the simple difference method and the regression-based method in the proportion of European Americans identified as meeting the severe discrepancy criteria for SLD.

**Method**

**Participants**

Participants in this study were full-time college students who had been referred to a university hospital psychology clinic for SLD evaluation between 1994 and 1997. Billing records and appointment logs including referral information and diagnoses for the 3-year period were used to identify potential participants. Participants were included in the study if they were between the ages of 18 and 25 at the time of evaluation and were currently attending a 4-year academic institution. Exclusion criteria included current attendance at a community college; evi-
dence of a psychiatric disorder or significant neurological impairment, such as head trauma or epilepsy; and a diagnosis of developmental delay. The sample (N = 117) consisted of 50 African American and 67 European American students.

Demographic information such as age, gender, ethnicity, and student athlete status was determined from evaluation reports. The SLD evaluation consisted of a clinical interview and a battery of neuropsychological tests administered by graduate-level psychology students and interns under the supervision of a licensed clinical neuropsychologist. All participants completed the Wechsler Adult Intelligence Scale–Revised (WAIS-R; Wechsler, 1981) to assess their general cognitive functioning and to determine expected achievement levels. The Woodcock-Johnson Psycho-Educational Battery–Revised (WJ-R; Woodcock & Johnson, 1989–1990) or the Wide Range Achievement Test–3 (WRAT-3; Wilkinson, 1993) was given to determine the participants’ current academic level. For this investigation, standard scores from the Broad Reading, Broad Math, and Broad Writing composites of the WJ-R and the Reading, Arithmetic, and Spelling subtests of the WRAT-3 were used. The use of scores from either the WJ-R or the WRAT-3 was justified by the moderate correlations between these tests for each of the academic areas.

Table 1 presents descriptive information about the sample of students. A number of statistically significant differences were found between the groups using independent sample t tests or chi-square tests. The African American students were slightly younger and less educated than the European American students. Although not considered clinically significant, both differences were statistically significant, age, t(114.9) = –3.04, p < .01; grade, t(111.5) = –4.43, p < .01. Men made up a larger percentage of the African American sample (88%) than of the European American sample (55%), χ²(1, N = 117), p < .01. Even more dramatic, the overwhelming majority of the African American students were college scholarship athletes (94%), compared to less than half (46%) of the European American students who were scholarship athletes, χ²(1, N = 117), p < .01.

Of the 50 African Americans in the sample, only 6 were women and only 3 were not athletes. These small cell sizes did not allow statistical analyses to partial out the effects of gender and athlete status. A separate analysis was conducted on the combined sample of African Americans and European Americans to test for a significant interaction effect of gender by athlete status. In the combined sample, 23% of the women, compared to 55% of the men, were college scholarship athletes, a difference that was not significant, χ²(1, N = 117), p > .01.

### Procedure

IQ and achievement test scores were converted to standard scores (M = 100, SD = 15). Severe discrepancies for each participant were determined using both a simple difference method and a regression-based method with a criterion of 1 SD. The methods and the criterion were the same as those used in McLeskey et al.’s (1990) study. Using the simple difference method, the achievement standard score was subtracted from the WAIS-R Full Scale IQ. A difference of greater than 15 points was considered a severe discrepancy, and the student was then classified as having SLD. Using the regression-based method, an expected achievement score for each participant was calculated using the following formula:

\[ Y' = [r_{xy} S_y (IQ - \bar{X})] + \bar{Y} \]

where \( Y' \) = the expected achievement score for a given IQ, \( r_{xy} \) = the correlation between the IQ and the achievement tests, \( S_y \) = the standard deviation of the achievement test, \( S_x \) = the standard deviation of the IQ test, \( \bar{X} \) = the mean for the IQ test, and \( \bar{Y} \) = the mean for the achievement test (see Wilson & Cone, 1984). Correlations and standard deviations for the various tests were taken from the test manuals (Wechsler, 1981; McGrew, Werder, & Woodcock, 1991; Wilkinson, 1993). A difference between the expected and the actual achievement scores of greater than 15 points was considered a severe discrepancy, and the student was then classified as having SLD.

### Results

The lower half of Table 1 shows the results of independent samples t tests to determine significant differences between the mean IQ scores for African Americans and European Americans in the sample. As expected, significant differences favoring European American students were found for the WAIS-R Full Scale, Verbal, and Performance IQs, t(112.5) = –9.13, t(100.6) = –9.09, and t(115.0) = –5.66, respectively, ps < .001. Effect sizes for these differences as estimated by Cohen’s d were very large: 1.65, 1.63, and 1.07 for the mean Full Scale, Verbal, and Performance IQ scores, respectively. IQ scores for the African American students were on average almost 1 SD lower than those of the European American students.

The significant difference in the mean IQ scores for the two groups implies that the use of a minimum IQ score would be biased against African American students. In this sample, using a minimum IQ score of 85 would have a differential impact on who was eligible for a diagnosis of SLD. Only 3% of the European Americans would have been excluded from consideration, whereas 32% of the African Americans would have been excluded.

Table 2 compares the results of the simple difference and regression-based methods for determining a severe discrepancy in both groups. McNemar’s test for paired categorical data was used to determine significant differences. The Kappa coefficient, which quantifies the level of agreement be-
between the two statistical methods, was used as an index of effect size for the analyses (Cook, 1998). As expected, the simple difference method resulted in a significantly smaller proportion of African Americans being identified as having SLD compared to the regression-based method. One third more African Americans (54%) were classified as having SLD using the regression-based method than were so classified using the simple difference method (36%), McNemar’s test (1, N = 50) = 9, p < .01, Kappa = .65. In contrast, there was no significant difference in the proportion of European American students classified as having SLD using either of the two methods. Of the European Americans, 26.87% were classified as having SLD using the simple difference and 20.90% using the regression-based methods, McNemar’s test (1, N = 67) = 1.33, p > .05, Kappa = .51.

These comparisons were followed by exploratory post hoc analyses of the proportionate representations of African Americans and European Americans who met the severe discrepancy criteria using both methods in three specific academic areas—reading, mathematics, and writing. Because not all participants completed tests in all three academic areas, participants with missing data were excluded from these analyses. Significant differences between the two methods were found for African Americans in all three academic areas, tested, as shown in Table 2. In reading, the regression-based method identified 22%, whereas the simple difference method identified 11% of African Americans as having SLD, McNemar’s test (1, N = 36) = 4, p < .05, Kappa = .61. In mathematics, the percentages of African Americans classified as having SLD were 23% and 15%, respectively, for the regression-based and simple difference methods, McNemar’s test (1, N = 48) = 4, p < .05, Kappa = .73. In writing, 46% versus 28% of African Americans were identified as having SLD using the regression-based and simple difference methods, respectively, McNemar’s test (1, N = 46) = 8, p < .01, Kappa = .64. In all three areas, almost twice as many African American students were classified as having SLD using the regression-based method compared with the simple difference method.

In contrast, for the European Americans, there were no significant differences between the two methods in the proportions of participants classified as having SLD for mathematics or writing, McNemar’s tests (1, N = 66) = 1, p > .05, Kappa = .57, and (1, N = 64) = 0, p > .05, Kappa = .49. In fact, the simple difference method classified only two more European American students as having SLD than the regression-based method. For reading, only one European American student was classified as having SLD using the simple difference method; none were identified using the regression-based method.

A final exploratory post hoc analysis was conducted to compare the two statistical methods for verifying the severe discrepancy criterion for SLD with the actual, clinician-determined diagnosis for both groups. For both African Americans and European Americans, a significantly higher proportion of students was identified as having SLD by clinicians than by the two statistical methods (see rightmost column of Table 2). Clinicians identified 76% of African Americans as having SLD, compared to 36% by the simple difference method and 54% by the regression-based method, McNemar’s tests (1, N = 50) = 16.67 and 6.37, ps < .05, Kappas = .16 and .21, respectively. Clinicians identified 55% of European American students as having SLD, compared to 27% by the simple difference method and 21% by the regression-based method, McNemar’s tests (1, N = 67) = 13.37 and 18.24, respectively, ps < .05, Kappas = .23 and .18, respectively.

### Discussion

Our three a priori hypotheses concerning the ethnic difference in mean IQ scores and the effect of this difference on the identification of SLD were supported. First, we demonstrated in a sample of college students with SLD that the average IQ score obtained by African Americans was significantly lower than that obtained by European Americans. The average WAIS-R Full Scale IQ was 88.4 for the African Americans and 103.5 for the European Americans in this study. The magnitude of this difference, almost 1 SD, is similar to that found in the normative samples for the WISC-R and WAIS-R and in a sample of children with SLD (Kaufman & Doppelt, 1976; McLeskey et al., 1990; Reynolds et al., 1987).
Second, we demonstrated that as a result of the ethnic difference in mean IQ scores, using a minimum IQ cutoff score of 1 SD below the normative mean would result in a significantly smaller proportion of African Americans than European Americans being eligible for a classification of SLD. In this sample, one third of the African American students would have been excluded from further evaluation if such a criterion had been imposed, whereas by comparison only two European American students (3%) would have been excluded from consideration. These results are similar to those found in the child studies by McLeskey et al. (1990) and Braden (1987).

Third, this study replicated, in a sample of adults referred for SLD evaluation, the differential effect that a simple difference versus a regression-based method has on the proportion of African Americans who meet the severe discrepancy criteria for SLD. The regression-based method resulted in a significantly larger proportion of African Americans being identified as having SLD (54%) compared to the simple difference method (36%). For European Americans, there was no significant difference in the proportion identified as having SLD using either statistical method. In terms of specific academic areas, the significant differences between the two diagnostic methods for African Americans held up for mathematics and writing but not for reading, although this last result may be due to the small sample size. Again, roughly the same proportion of European Americans was identified as having SLD in the specific academic areas regardless of which method was used. Overall, these results mirrored those of previous studies (Braden, 1987; McLeskey et al., 1990) but extended these findings to an adult sample.

This study broke new ground by comparing diagnoses based exclusively on statistical methods with diagnoses actually determined by clinicians. Clinicians identified more students as having SLD than either statistical method, regardless of ethnicity. There are at least two possible explanations for this difference. First, the clinicians had access to much more data when making a diagnosis, including information from the student’s history as well as the results of other neuropsychological tests. Second, the clinicians, fully aware of the IQ differences between African Americans and European Americans, may have placed less emphasis on IQ scores when evaluating African Americans.

The differences between the clinicians’ diagnoses and the statistical methods challenge an important assumption in the literature, namely that clinicians follow legislative guidelines for identifying SLD. Two studies have examined the concordance between school personnel decisions and discrepancy-based criteria. Payette and Clarizio (1994) found that 25% of the team-based decisions for determining SLD placement of elementary and secondary school children were at odds with discrepancy-based criteria, regardless of whether a simple difference or regression-based method was used. Moreover, the team-based eligibility decisions were found to be significantly related to age, ethnicity, gender, achievement, and IQ (Payette & Clarizio, 1994). A more recent study of five school district committees by MacMillan, Gresham, and Bocian (1998) found that less than half of the students classified as having LD met the state-mandated discrepancy criteria and that other students who did meet the discrepancy criteria were not classified as having LD. Low absolute achievement, rather than discrepancy, was the most consistent criterion used by school officials to determine students’ eligibility for LD services (MacMillan et al., 1998). How clinicians and school personnel use students’ demographic data and results of psychoeducational assessments to make eligibility decisions is an intriguing issue that clearly warrants further research.

This study has several limitations that should be considered when interpreting the reported findings. First, it could be argued that the significant demographic differences—namely, gender and athlete status—that existed between the groups could account for the findings. Small cell sizes—there were only 6 African American women and 3 African American nonathletes in the sample—did not permit statistical analyses to partial out the effects of
these two variables. These differences were likely due to a referral bias; most of the African American students in the sample were scholarship athletes referred by their academic counselors within the athletic department, whereas the majority of the European American students were not athletes and were more likely to self-refer for evaluation. A separate analysis of the combined sample to test for an interaction between gender and athlete status was found to be nonsignificant. Moreover, the similarity between the IQ scores of African Americans and European Americans in this sample and IQ scores reported in other studies suggests that the referral bias did not have a significant effect on the overall results.

A second important limitation is the lack of data on the socioeconomic status (SES) of the individuals in the sample. Differences in SES between the groups may have confounded the results attributed to ethnicity. There may also be an interaction between ethnicity and SES that could not be accounted for in these analyses. As Wagner (1995) has shown, poverty may be the most important driving force behind the disproportionate representation of African Americans in special education.

This study investigated only one of a number of measurement issues that need to be considered in the evaluation of SLD. Several researchers have eloquently highlighted the numerous problems with the use of IQ scores generally for determining SLD (Francis, Espy, Rourke, & Fletcher, 1991; Lyon, 1989). Critiques of discrepancy-based methods, including regression-based procedures, for determining SLD have been offered by a number of investigators (Fletcher, Francis, Rourke, Shaywitz, 1992; Heath & Kush, 1991; Reynolds, 1990; Shaywitz, Fletcher, Holahan, & Shaywitz, 1992). Perhaps the most serious challenge to discrepancy-based methods is the evidence that they lack external validity. For example, in the case of reading disabilities, discrepancy formulas have not been found to correlate with the phonological processing deficits that are thought to be at the core of reading disability (Fletcher, Espy, Francis, Rourke, & Shaywitz, 1989; Fletcher et al., 1992; Fletcher et al., 1994; Stanovich & Siegel, 1994). Abandoning the use of IQ scores and discrepancy-based methods for identifying SLD has been explicitly advocated by many in the field (see Lyon, 1989, for an early example; see Fletcher et al., 1998; Siegel, 1999; and Stanovich, 1999; for more recent examples). Instead, a number of researchers have recommended using process-oriented and treatment response approaches as an alternative for diagnosing SLD (Berninger & Abbott, 1994; Francis, Shaywitz, Stuebing, Shaywitz, & Fletcher, 1991; Fuchs & Fuchs, 1998; Shaywitz & Shaywitz, 1991; Torgesen & Wagner, 1998).

Even if regression-based procedures were the answer to the problem of the disproportionate identification of African American students, at least two additional psychometric issues must be taken into account. One is the need to include in the regression equations the reliabilities of the test measures used to determine SLD (Berk, 1984; Schuerholz et al., 1995). It could be argued, however, that reliability measurements, like IQ score parameters, are based on normative samples primarily composed of European Americans and may not be applicable to other ethnic groups. A second psychometric issue is that the regression line used to predict achievement from IQ does not appear to be the same for all ethnic groups. One group of researchers has demonstrated predictive bias, particularly intercept bias, for referred and nonreferred African American and Hispanic children (Olivarez, Palmer, & Guillemand, 1992). Part of the evidence in the Larry P. v. Riles case was expert testimony regarding differences in the slope of the regression line and correlation coefficient between IQ and school grade point average for African American and European American children (J. R. Mercer, cited in Dent, 1996). In general, it appears that the regression line derived from a predominantly European American normative sample tends to overpredict achievement for some ethnic minority children and may thereby overidentify them as having SLD. Clearly, a number of complex methodological and measurement issues involved in the determination of SLD need to be resolved for the benefit of all students—children as well as adults.

The results of this study strongly suggest that one size still does not fit all when it comes to ethnicity and the determination of SLD. The legislative policy implications of this and similar studies are clear. For the benefit of all students—for the European American students who may be overidentified as having SLD as well as for the ethnic minority students who may be underidentified as having SLD—state education agencies should discontinue the use of minimum IQ scores and discrepancy-based methods for determining SLD. Moreover, a uniform guideline for determining the significance of a discrepancy should be adopted based on our understanding of the prevalence of SLD. As it has been demonstrated that the decrease in a state’s annual SLD population is significantly related to its use of a discrepancy criterion, it appears that these criteria, like minimum IQ scores, are being used to limit the number of students eligible for services (Frankenberger & Fronzaglio, 1991). As Meyer (2000) has argued, changing educational and legislative policies regarding the definition and identification of SLD will require vigorous advocacy by an alliance of organizations of parents, psychologists, educators, and researchers. After more than a decade of intense criticism of the currently mandated methods in several academic journals, the time for the research rubber to meet the policy road is long overdue.

Changing policy to better reflect SLD research will likely have significant economic implications even if it fails to result in the proportionate representation of African Americans in various special education categories. For example, the use of low-achievement
definitions of LD has been shown to result in more students—African American and European American—qualifying for LD services (Colarusso, Keel, & Dangel, 2001). Also, the cost of alternative, process-based methods for identifying students with SLD compared to current methods remains an unresolved empirical question. The potential cost offset of early identification and early intervention over long-term LD placements will need to be considered when advocating for policy changes (Meyer, 2000).

The impact of policy decisions on the lives of students should not be ignored. As more students with SLD pursue higher education, it becomes imperative that African American students be appropriately identified as having SLD at the elementary and secondary school levels. The lack of access to needed services will otherwise become yet another barrier to postsecondary education for those who wish to pursue it. For the African Americans with SLD who manage to make it to college unaware of their SLD, eligibility for services is still dependent on appropriate identification, and these services can make a difference in whether the student successfully reaches graduation. To the extent that educational attainment is related to positive life outcomes, access to, and fair and equitable distribution of, resources are vitaly important for the future of African Americans.

ABOUT THE AUTHORS
Tamara D. Warner, MS, is a doctoral student in clinical and health psychology at the University of Florida. Her interests include clinical research using African Americans and developmental neuropsychology. Duane E. Dede, PhD, is a clinical associate professor of clinical and health psychology at the University of Florida and does research on the neuropsychological effects of mild traumatic brain injury. Cynthia W. Garvan, PhD, is an assistant professor of biostatistics at the University of Florida. Timothy W. Conway, BA, is a doctoral student in clinical and health psychology at the University of Florida. Address: Duane E. Dede, Gainesville, FL 32610-0165.

REFERENCES


