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Abstract

The least restrictive environment (LRE) mandate provides a preference for educating students with disabilities in general education classrooms while allowing separate class services as necessary to meet student needs. This study investigated changes in national LRE placement trends for students with disabilities from 1990–1991 through 2007–2008. Findings revealed a significant increase in placements in general education settings and a substantial decrease in more restrictive placements. Placement practices for students at the secondary level changed substantially more than placements for elementary students, although both groups moved toward significantly less restrictive placement practices. Students with learning disabilities accounted for much of the overall change in placement practices, whereas students with emotional or behavioral disorders and intellectual disabilities experienced smaller changes in less restrictive placements.

Keywords

policy and law, legislation, school reform

In 1975, the U.S. Congress passed Public Law 94–142, the Education for All Handicapped Children Act (later renamed the Individuals With Disabilities Education Improvement Act, or IDEA), which mandated that students with disabilities be educated in the least restrictive environment (LRE). Prior to this time, students were typically educated in a setting based on their disability label rather than their individual needs (Crockett, 1999). Furthermore, many advocates had questioned the effectiveness of the near universal practice of educating students with mild intellectual disabilities (ID) in separate class or separate school settings (Deno, 1970; Dunn, 1968; Goldstein, Moss, & Jordan, 1965; Johnson, 1962).

Given this context, the LRE mandate provided a clear preference for educating students with disabilities in general education classrooms while allowing separate class services in certain instances when such a placement was deemed more effective or better met the student's needs (Crockett, 1999; Korinek, McLaughlin, & Walther-Thomas, 1995; Osborne & Dimattia, 1994). More specifically, this mandate stated,

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment

occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (EHA, 1975, sec. 1412(5)(B))

The entire history of special education “can be told in terms of one steady trend that can be described as progressive inclusion” (Reynolds & Birch, 1977, p. 22), and the LRE mandate is no exception. More specifically, this mandate was included in federal law to increase the access of students with disabilities to general education classrooms while reducing “the practice of segregating special education students either by educating them in special facilities or relegating them to classes in remote areas of the school building” (Osborne & Dimattia, 1994, p. 11).

Since this mandate was passed, changes in the law have strengthened the LRE mandate by providing students with access to the general education curriculum and by holding

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schools accountable for ensuring that students with disabilities make adequate yearly progress related to this curriculum (McLeskey, Rosenberg, & Westling, 2010). In addition, conceptions of LRE have changed as our ability to provide effective instructional programs has improved. Moreover, special educators now know that students with disabilities are capable of achieving more than families and professionals believed possible a generation ago (Korinek et al., 1995). This has led to changes in the interpretation of the LRE mandate, resulting in a growing emphasis on the need to educate students with disabilities for increasing proportions of the school day in general education classrooms (Korinek et al., 1995; McLeskey, 2007).

In principle, the LRE mandate has been met with near universal acceptance and support from special educators and advocates. However much controversy (and often little agreement) has emerged regarding the interpretation and application of this mandate in practice (McLeskey, 2007). Central to this controversy is the issue of balancing the extent to which students are educated in general education classrooms, on one hand, with an emphasis on student outcomes or program effectiveness, on the other (McLeskey, 2007; Waldron & McLeskey, 2009). More specifically, some have contended that advocates for inclusion have erred by placing too much emphasis on the place an education occurs and not enough emphasis on the quality of instruction and educational outcomes for students (Fuchs & Fuchs, 1994; Kauffman, 1993; McLeskey, 2007). Much of this controversy has focused on three of the largest disability categories, that is, learning disabilities (LD), emotional and behavior disorders (EBD), and ID (Fuchs & Fuchs, 1994; Kauffman, 1993; Kavale & Forness, 2000; Lipsky & Gartner, 1997; McLeskey, 2007; Stainback & Stainback, 1992).

Given the controversial nature of the LRE mandate, this study was designed to provide current data regarding LRE placements, and to examine how these placements have changed over the past 20 years. The specific purposes of this study were to (a) examine national data regarding trends in placement practices for school-aged students with disabilities between 1990-1991 and 2007-2008, (b) determine how changes in LRE placements compare for elementary (ages 6–11) and secondary (ages 12–17) students, and (c) examine changes that have occurred in placement practices for students in high-incidence disability categories (i.e., LD, ID, speech or language impairments [SLI], EBD, and other health impairments [OHI]) and how these changes have influenced trends in national data.

Method

Data Sources

This investigation used data collected annually from states by the U.S. Department of Education, Office of Special

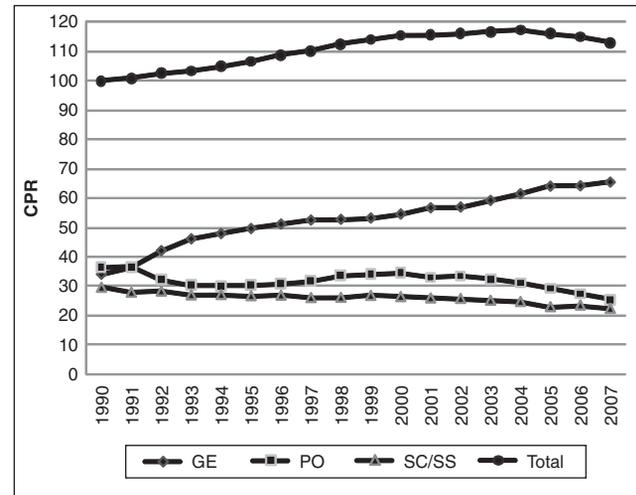


Figure 1. National placement trends for students with disabilities.

Abbreviations: CPR, cumulative placement rate; GE = regular class; PO = pullout; SC/SS = separate class or separate school.

Education Programs (OSEP) regarding the number of students with disabilities served in different educational settings. The purpose of this data collection is to monitor state compliance with the LRE mandate of IDEA. These data are reported annually in *Reports to Congress* (U.S. Department of Education, 2009b) and on a Department of Education website (U.S. Department of Education, 2009a).

It is important to note that although these data represent the population of students with disabilities in the United States, they have limitations that the U.S. Department of Education has worked to improve over the years (Lee, 2004; National Research Council, Division of Behavioral and Social Sciences and Education, 2002). For example, recently a change occurred in how LRE data are reported that was intended to improve the reliability of these data. Through 2005-2006, states reported LRE data based on student placements in special education settings (e.g., placed in special education for 20% or less of the school day). Beginning in 2006, definitions were changed to reflect the extent to which students were educated in general education settings (e.g., “placed in special education for 20% or more of the school day” was changed to “educated in a general education classroom for 80% or more of the school day”; U.S. Department of Education, 2009a).

This change in data reporting practices did not seem to have a significant impact on trends in the data reported by states, as trends in the data remained consistent with those of previous years (see Figure 1). For example, examination of national placement data reported in 2005 and 2006 (see Table 2 below) reveals that no significant or unusual changes occurred in the percentage of students placed in different school-based settings during this time. Furthermore, examination of “Data Notes” (these are notes submitted by states

Table 1. Placement Setting Definitions

| Setting | Definition |
|------------------------|--|
| General education (GE) | Includes students with disabilities who are educated in a general education classroom for 80% or more of the school day |
| Pullout (PO) | Includes students with disabilities who are educated in a general education classroom for 40% to 79% of the school day |
| Separate class (SC) | Includes students with disabilities who are educated in a general education classroom for less than 40% of the school day |
| Separate school (SS) | Includes students who are educated in public or private separate facilities, public or private residential facilities, or homebound or hospital programs |

These definitions were taken from U.S. Department of Education (2009b).

that clarify any changes or problems in data reporting) that were submitted to the U.S. Department of Education in 2006 (U.S. Department of Education, 2009a) indicate that this change presented few problems for data collection in states and had little impact on state data. These findings are not surprising, as this was not a substantive change in how settings were defined or how data were reported. Moreover, in spite of concerns regarding the data and changes that have occurred in reporting practices over time, these data are generally viewed as the most reliable and valid national placement data available (Danielson & Bellamy, 1989; McLeskey, Henry, & Hodges, 1999; McLeskey, Hoppey, Williamson, & Rentz, 2004; Sawyer, McLaughlin, & Winglee, 1994; Williamson, McLeskey, Hoppey, & Rentz, 2006) and continue to be used to examine the extent to which states are in compliance with the LRE mandate.

Data used for this investigation included placement settings for school-aged students with disabilities (ages 6–17) from the 50 states and the District of Columbia for 1990–1991 through 2007–2008. Placement data were also collected for high-incidence disability categories (i.e., LD, SLI, ID, EBD, and OHI) for 1990–1991 and 2007–2008.

Placement Settings and Cumulative Placement Rates

As we noted previously, until 2006–2007 student placement data included in *Reports to Congress* were disaggregated based on the time students with disabilities spend outside of the general education classroom. This changed in 2006–2007, as data were collected based on the time students spend in general education classrooms. Current definitions for LRE settings that are used by the U.S. Department of Education are provided in Table 1. To simplify terminology for this study, we call the 80% or more in the general education category “general education” (GE), the 40% to 79% in

Table 2. Cumulative Placement Rate by Year and Setting

| Year | GE | PO | SC/SS | Total |
|------|-------|-------|-------|--------|
| 1990 | 33.91 | 36.43 | 29.62 | 99.96 |
| 1991 | 36.31 | 36.61 | 27.88 | 100.81 |
| 1992 | 41.99 | 32.28 | 28.30 | 102.57 |
| 1993 | 46.05 | 30.32 | 26.98 | 103.35 |
| 1994 | 47.86 | 30.00 | 27.06 | 104.92 |
| 1995 | 49.58 | 30.40 | 26.67 | 106.66 |
| 1996 | 51.10 | 30.8 | 26.88 | 108.78 |
| 1997 | 52.47 | 31.77 | 26.01 | 110.25 |
| 1998 | 52.73 | 33.69 | 26.10 | 112.52 |
| 1999 | 53.18 | 34.06 | 26.78 | 114.02 |
| 2000 | 54.53 | 34.58 | 26.36 | 115.48 |
| 2001 | 56.67 | 33.06 | 25.90 | 115.64 |
| 2002 | 56.93 | 33.46 | 25.72 | 116.12 |
| 2003 | 59.21 | 32.38 | 25.10 | 116.69 |
| 2004 | 61.52 | 31.16 | 24.65 | 117.33 |
| 2005 | 64.08 | 29.22 | 22.84 | 116.14 |
| 2006 | 64.22 | 27.35 | 23.43 | 115.00 |
| 2007 | 65.47 | 25.34 | 22.22 | 113.02 |

Abbreviations: GE = regular class; PO = pullout; SC/SS = separate class or separate school.

general education are called “pullout” (PO), and the less than 40% in general education and several additional settings (i.e., separate day schools, residential facilities, and homebound or hospital environments) are combined into one setting called “separate class or separate school” (SC/SS).

In this investigation, we use a descriptive statistic called cumulative placement rate (CPR) that has been used in previous investigations of student placements (Danielson & Bellamy, 1989; McLeskey, et al., 2004; McLeskey, Henry, & Hodges, 1999; Williamson et al., 2006). This statistic denotes the number of children with disabilities per 1,000 school-aged students who are educated in a given setting. CPR is obtained by dividing the total number of students with disabilities ages 6 through 17 in a given placement by the total resident population of students ages 6 through 17 and multiplying by 1,000. This statistic simplifies interpretation of data by taking into account the overall student population when examining placement data. For example, if the identification rate of students with disabilities increases over time (i.e., a greater proportion of the student population is identified with a disability), CPR takes this change into account.

Results

Trends in National LRE Placement Settings for Students Ages 6–17

National LRE placement data for all students with disabilities ages 6 to 17 from 1990–1991 and 2007–2008 are presented in Table 2, whereas Figure 1 provides a graph of

these data for each year between 1990 and 2007. It is noteworthy that the overall number of students identified with disabilities increased from 1990-1991 to 2007-2008 from 99.96 to 113.02, representing an increase of about 13%. This means that roughly 13 more students per 1,000 were identified with a disability during 2007-2008 than was the case in 1990-1991. The implications of this increase in student identification rate are addressed further in the discussion section of this article.

Examination of national placement data reveals three noteworthy trends. First, placements of students with disabilities who were educated in separate settings for most or all of the school day (i.e., SC/SS settings) showed a trend toward gradual decline during this time. In 1990, 29.62 students per 1,000 students were educated in these settings. By 2007, this number had declined approximately 25% to 22.22 per 1,000 students who were identified with a disability and placed in one of these settings.

Second, a consistent trend did not occur for placements in PO settings (see Figure 1), as placements declined in the early 1990s, increased in the late 1990s, and continued a downward trend from the early 2000s through 2007. Overall, placements in PO settings declined from a CPR of 36.43 in 1990 to 25.34 in 2007, a decrease of approximately 30%. This inconsistent pattern of placements in PO settings is similar to those in previous research (McLeskey et al., 2004; McLeskey, Henry, & Axelrod, 1999; Williamson et al., 2006), which found that changes in placements in PO settings are more difficult to interpret than changes in GE or SC/SS placements.

Finally, decreases in PO and SC/SS settings were accompanied by a gradual increase in the proportion of students educated in GE settings between 1990 and 2007. In 1990-1991, 33.91 of every 1,000 students were identified with disabilities and placed in these settings. By 2007-2008, this figure had increased by approximately 93% to 65.47.

Trends by Age Level

Table 3 presents the CPR for students with disabilities by age level, including elementary-level (ages 6–11) and secondary-level (ages 12–17) students for 1990-1991 and 2007-2008. Data in Table 3 reveal that elementary-level student placement rates in SC/SS settings decreased from 26.72 to 19.38 during this time, or by approximately 27%. Similarly, elementary-level students placed in PO settings decreased from 33.44 to 19.75, a decline of 41%. Finally, the placement of these students in GE settings rose from 46.08 to 73.45, an increase of approximately 59%.

Table 3 reveals that secondary-level students' placement rates in SC/SS settings decreased about 22%, from 31.95 to 24.87 between 1990 and 2007. Similarly, placements of these students in PO settings declined from 38.66 to 30.57

Table 3. Age Group Comparison by Placement Setting: 1990 and 2007

| Setting | 1990 | | 2007 | |
|---------|----------|-----------|----------|-----------|
| | Age 6–11 | Age 12–17 | Age 6–11 | Age 12–17 |
| GE | 46.08 | 19.94 | 73.45 | 58.00 |
| PO | 33.44 | 38.66 | 19.75 | 30.57 |
| SC/SS | 26.72 | 31.95 | 19.38 | 24.87 |
| Total | 106.24 | 90.55 | 112.58 | 113.44 |

Abbreviations: GE = regular class; PO = pullout; SC/SS = separate class or separate school.

per 1,000 students, a decrease of approximately 21%. Finally, placement of secondary students with disabilities in GE settings increased by more than 191% during this time, from 19.94 to 58.00. Thus, changes in placement practices for students at the secondary level changed substantially more than placements for elementary students, although both groups moved toward significantly less restrictive placement practices.

Trends Across High-Incidence Disability Categories

LRE placement data for high-incidence disability categories are included in Table 4. These categories are included in this analysis for three reasons. First, they represent the largest categories of disability, accounting for almost 90% of all students with disabilities, and help explain much of the change that has occurred since 1990 regarding LRE placements. Second, three of the categories (LD, MR, EBD) have been very controversial in relation to LRE, especially with regard to GE or inclusive placements (Fuchs & Fuchs, 1994; Kauffman, 1993; Kavale & Forness, 2000; McLeskey, 2007). Third, the OHI category has been the fastest growing category in special education since 1990 and is now the third largest category of disability behind LD and SLI. This change has likely occurred largely as a result of explicitly including in this category students with attention-deficit/hyperactivity disorder, most of whom tend to be placed in less restrictive settings, beginning in 1997 (McLeskey, Rosenberg, & Westling, 2010).

As Table 4 reveals, the largest increase in GE placements occurred for students with LD. Between 1990 and 2007, the CPR for GE placements for students with LD increased from 11.12 to 28.88, an increase of approximately 160%. This change was accompanied by a 45% decrease in the CPR for students with LD who were educated in PO settings from 26.54 to 14.62 and a 54% decrease in SC/SS placements from 11.77 to 5.40. Changes in this category significantly contributed to the increased placement rate in the United States in GE settings during this time as well as to the decline in placements in PO and SC/SS settings.

Table 4. Major Disability Category Cumulative Placement Rate Comparisons: 1990 and 2007

| Disability category | Placement setting | Cumulative Placement Rate | |
|--------------------------------|-------------------|---------------------------|-------|
| | | 1990 | 2007 |
| Emotional disturbance | GE | 1.52 | 3.12 |
| | PO | 2.61 | 1.64 |
| | SC/SS | 4.83 | 3.51 |
| | Total | 8.96 | 8.27 |
| Intellectual disability | GE | 0.90 | 1.40 |
| | PO | 2.60 | 2.44 |
| | SC/SS | 7.87 | 4.62 |
| | Total | 11.37 | 8.46 |
| Other health impairments | GE | 0.42 | 7.17 |
| | PO | 0.37 | 3.07 |
| | SC/SS | 0.54 | 1.85 |
| | Total | 1.33 | 12.09 |
| Specific learning disabilities | GE | 11.12 | 28.88 |
| | PO | 26.54 | 14.62 |
| | SC/SS | 11.77 | 5.40 |
| | Total | 49.43 | 48.90 |
| Speech or language impairments | GE | 18.83 | 19.92 |
| | PO | 3.29 | 1.28 |
| | SC/SS | 1.69 | 1.74 |
| | Total | 23.81 | 22.94 |

Abbreviations: GE = regular class; PO = pullout; SC/SS = separate class or separate school.

More modest but still significant changes occurred in placement practices for students with ID. Between 1990 and 2007 the GE placements for students with ID increased from 0.90 to 1.4, or by approximately 56%. During this time, PO placements decreased from 2.60 to 2.44, or by 6%, whereas SC/SS placements declined much more significantly, from 7.87 to 4.62, or by 41%. As these data reveal, changes in placement practices in this category substantially contributed to the decrease in SC/SS placements but only a very small proportion of the growth in GE placements between 1990 and 2007.

Significant changes also occurred in placement practices for students in the EBD category. Between 1990 and 2007, the percentage of students with EBD who were educated in SC/SS settings decreased by 27%, from 4.83 to 3.51, whereas the PO placements declined by 37% from 2.61 to 1.64. GE placements for students with EBD increased between 1990 and 2007 by 105%, from 1.52 to 3.12. Students in the EBD category accounted for a small proportion of the overall increase in GE placements during this time and a more significant proportion of the decrease in SC/SS placements.

As we stated previously, OHI was the fastest growing category in special education from 1990 to 2007, increasing

more than ninefold during this time. As Table 4 indicates, students with OHI who were educated in GE and PO settings increased most significantly during this time, whereas modest increases occurred in SC/SS placements. Thus, the growth of this category significantly contributed to the increase in GE placements and tended to reduce the decline in placements in PO and SC/SS between 1990 and 2007.

Finally, Table 4 reveals that although students with SLI are educated in GE settings for more time than any other category of disability, these placements became even less restrictive between 1990 and 2007. Between 1990 and 2007, placements of students with SLI in GE settings increased by 6% from 18.83 to 19.92, whereas PO placements decreased by 61% from 3.29 to 1.28. During this time, placements of students with SLI in SC/SS placements remained substantially unchanged, as the CPR was 1.69 in 1990 and 1.74 in 2007. This category thus had little impact on changes in placement practices between 1990 and 2007.

Discussion

Data on national LRE placement practices reported in this investigation reveal that, in spite of continuing controversy regarding the LRE mandate and inclusive placements (Kauffman, 2007; Kavale & Mosert, 2003; McLeskey, 2007; Zigmond, Kloo, & Volonino, 2009), significant changes occurred in placement practices between 1990 and 2007. These changes were significantly greater than those reported in previous research (Danielson & Bellamy, 1989; McLeskey, Henry, & Hodges, 1998; Sawyer et al., 1994) and resulted in less restrictive placements for a substantial number of students with disabilities across the United States. This included a significant increase in placements in GE settings and a substantial decrease in both PO and SC/SS placements.

Perhaps the most significant change in placement practices during this time was the increase in the number of students who were placed in GE classrooms for most of the school day. In 1990, 34% of students with disabilities spent most of the school day in GE settings. This proportion increased to 58% in 2007. A large proportion of this change can likely be explained by growth in the identification of students with mild disabilities, particularly in the OHI category, as well as increased placements of students with LD in GE settings. However, it is noteworthy that increasing numbers of students with ID and EBD were also placed in GE settings, indicating that increased GE placements occurred across major disabilities categories and that the ID and EBD categories contributed to the increase.

Another significant finding of this investigation that contrasts with previous research (Danielson & Bellamy, 1989; McLeskey et al., 1998; Sawyer et al., 1994) was the substantial decline in placements of students with disabilities in more restrictive, SC/SS settings. Between 1990 and

2007, the number of students who were placed in SC/SS settings decreased by about 25%. This change was reflected across major disability categories as students with LD, ID, and EBD were significantly less likely to be placed SC/SS settings in 2007-2008, thus contributing to the overall national decline in these placements.

When these data were analyzed by age level, the results revealed that significant progress was made toward educating both elementary- and secondary-level students in less restrictive settings. However, changes for secondary students were much greater than those for elementary students. Between 1990 and 2007, GE placements for secondary-level students increased by 190%, compared to an increase of 60% for elementary-level students, whereas SC/SS declined by 45% for secondary students and only 27% for elementary students.

When interpreting these age-level data, two significant factors are important to consider. First, these changes can be at least partially explained by the increased identification rate for secondary-level students with disabilities when compared to elementary students. During this time, secondary students identified with disabilities grew by 25%, whereas the elementary students increased by only 6%. This likely contributed to the rapid growth of placements of secondary students in GE settings, as many of these newly identified students were likely students with mild disabilities (e.g., OHI) who are frequently educated in less restrictive settings (McLeskey, Rosenberg, & Westling, 2010). Second, secondary-level students with disabilities were educated in much more restrictive placements in 1990 than were students at the elementary level. The changes that occurred in LRE placements between 1990 and 2007 thus reflect significant progress in catching up, at least to some degree, with placement practices for students at the elementary level. It is noteworthy that even with these changes, secondary-level students continue to be educated in more restrictive settings than do students at the elementary level.

The data presented in this investigation also revealed that significant progress was made in educating students in less restrictive settings across disability categories. The most substantial progress was made in educating students with LD in less restrictive settings. In 1990, about 23% of these students were educated in GE settings. By 2007, this proportion had increased to 59%. Students in the LD category were also much less likely to be placed in SC/SS settings in 2007, as the proportion educated in these settings declined from 24% in 1990 to 11% in 2007. This finding contrasts with previous research, which has revealed that through the 1980s (McLeskey & Pacchiano, 1994) and 1990s (McLeskey et al., 2004) little progress was made toward educating students with LD in less restrictive settings.

Although significant progress has also been made in educating students with ID and EBD in less restrictive settings, the proportion of these students who are educated

with general education peers for much of the school day remains substantially lower than the proportion of students with LD. More specifically, 58% (EBD) and 46% (ID) of these students spend most or some of the school day in GE classrooms (i.e., in GE or PO settings), whereas 42% (EBD) and 54% (ID) are educated in separate settings (i.e., SC/SS) for most or all of the school day. This compares to 89% of students with LD who are educated in general education for some or most of the school day and only 11% who are educated in SC/SS settings.

These findings are perhaps understandable with regard to LRE practices for students with EBD, as teachers and researchers seem to agree that the needs of many of these students are complex and difficult to successfully address in a GE classroom (Kauffman, Mock, & Simpson, 2007; Simpson, 2004). This likely results in the placement of a higher proportion of students with EBD in separate settings, which are assumed to be designed to deliver specialized, highly effective educational programs, which are needed by these students to improve their behavior and ensure that they made sufficient levels of academic progress (Kauffman, Bantz, & McCullough, 2002; Landrum, Tankersley, & Kauffman, 2003).

In contrast, the findings for students with ID are more difficult to explain. Although there was substantial progress in educating these students in less restrictive settings between 1990 and 2007, 54% of students with ID continued to spend little or no time in GE classrooms in 2007. This occurred in spite of the fact that most research has indicated that students with ID can be successfully educated in GE classrooms for at least part of the school day, and many of these students benefit significantly from well-designed inclusive programs (Freeman & Alkin, 2000; Hardman & Dawson, 2008; Soukup, Wehmeyer, Bashinski, & Bovaird, 2007). The findings of the current investigation are supported by previous research (Smith, 2007; Williamson et al., 2006) and indicate that perhaps more than any other disability category much progress remains to be made in providing students with ID with access to the GE classroom as required by the LRE mandate.

Although definitive evidence is not available regarding why dramatic changes have occurred in placement practices over the past two decades, it is likely that several federal and state policies influenced this movement toward educating students with disabilities in less restrictive settings. For example, in the mid to late 1980s there was a major federal emphasis on providing inclusive programs for increasing numbers of students with disabilities as part of a shared responsibility with general education (Reynolds, Wang, & Walberg, 1987; Will, 1986). This emphasis on inclusion at the federal level was followed by changes in policies in many states that supported inclusive placements (Duhaney, 1999; Furney, Hasazi, Clark/Keefe, & Hartnett, 2003) and likely contributed to the rapid movement toward

placing students in less restrictive settings between 1990 and 1993.

As Figure 1 and Table 2 reveal, placements in less restrictive settings (e.g., GE classrooms) grew at a slow rate between 1993 and 2002 but then resumed more rapid growth from 2002 to 2007. Two federal initiatives during this time likely contributed to this continuing growth. These mandates ensured that students with disabilities had access to the GE curriculum and made progress in this curriculum (IDEA, 1997, 2004; No Child Left Behind Act [NCLB], 2002). This emphasis on access to the GE curriculum and adequate yearly progress was likely a catalyst for many states and local school districts to educate increasing numbers of students with disabilities in GE classrooms, as this setting provided ready access to the GE curriculum and a teacher with deep knowledge regarding this content.

A mandate that likely had a significant influence on the substantial movement toward placements in less restrictive settings for secondary students with disabilities was the requirement that all students have teachers who are highly qualified in the content area they teach (NCLB, 2002). When this mandate was passed, from 82% to 99% of secondary-level special education teachers were not highly qualified in the content areas they taught (e.g., English, math, science, and/or social studies; McLeskey & Billingsley, 2008). This lack of highly qualified special education teachers likely increased placements of secondary-level students with disabilities in GE classrooms with content area specialists and special education coteachers, as this approach to service delivery provided a readily available alternative for local schools to meet the highly qualified requirement of NCLB (McLeskey & Billingsley, 2008).

Finally, an alteration to how states are held accountable for LRE placements occurred in 2004, which seems to have had an impact on placement practices. This change occurred when a memo to states was issued by OSEP indicating that focused monitoring would be conducted by OSEP in states that ranked low on critical indicators such as LRE (Lee, 2004). These low-performing states were designated to receive technical assistance to plan, implement, and evaluate improvement strategies. This focused monitoring seems to have had some influence on changes in LRE placement practices, as subsequent data revealed that there was less variability among states in placement practices and almost all states seemed to be moving toward educating students in less restrictive settings (McLeskey, Landers, Hoppey, & Williamson, 2010).

In conclusion, data presented in this investigation reveal that substantial changes have occurred in LRE placement practices since 1990. These changes have resulted in significantly more students with disabilities being placed in GE classrooms for most of the school day and substantially fewer student placements in highly restrictive settings. These changes have occurred across age levels and

disability categories. It seems likely that federal policy mandates related to accountability and highly qualified teachers will serve as a catalyst for this movement toward less restrictive placements to continue in the future. Whether these changes are beneficial for students with disabilities, of course, depends on whether programs are developed in general education to meet student needs (McLeskey, Rosenberg, et al., 2010) and whether these programs result in improved student outcomes. As we note in the section that follows, further research is needed to determine if this has occurred.

Limitations and Directions for Future Research

Several of the limitations of this study relate to the data that are collected and reported by the U.S. Department of Education with regard to placement practices. For example, as we previously noted, the U.S. Department of Education continues to improve data collection procedures to ensure the reliability and validity of these data, and these changes may have influenced trends in the data over time. This suggests that the data reported herein should be interpreted with caution.

In addition to this limitation, the specific data that are reported are problematic in at least two important ways given current controversies related to placement practices. First, there is not a category for so-called full inclusion, that is, when students are placed in GE classrooms for 100% of the school day. This makes it impossible to determine the extent to which full inclusion practices have occurred or changed over time. Second, changes over time in the PO setting are difficult to interpret because this setting includes students who are educated in relatively nonrestrictive placements (i.e., in GE classrooms for as much as 79% of the school day) as well as students who are educated in relatively restrictive settings (i.e., in GE for as little as 40% of the school day). Thus, data in the PO setting tend to vary more than those in the other placement settings over time (i.e., students move from both GE and SC/SS settings into the PO setting), making it difficult to determine what changes in the PO category mean.

Another limitation of this investigation is that we can only speculate regarding how higher identification rates influenced placement practices. Although it is likely that many of these newly identified students had mild disabilities and were educated in nonrestrictive settings, the data from the U.S. Department of Education do not provide direct evidence regarding this issue.

Finally, for many years compelling arguments have been made that educating students with disabilities for increasing periods of time in GE classrooms may not be “less restrictive” or a more appropriate setting for these students (Cruickshank, 1977; Kauffman, 1993). It is thus important to recognize that none of the data we present address the

quality of different settings but simply reflect the time students spend in GE classrooms.

Given the shortcomings of this investigation, perhaps the most important area for further research relates to the need to determine the extent to which trends toward placing more students in GE classrooms for increasing periods of time are related to improved student outcomes. Some initial data from the United Kingdom indicate that there may not be a relationship between large-scale changes in placement settings and student outcomes (Farrell, Dyson, Polat, Hutcheson, & Gallannaugh, 2007); however, research is needed to more fully understand this issue. This research should provide a better understanding regarding the type of instruction that is needed in inclusive, GE settings to produce improved student outcomes.

Further research is also needed regarding why rapid changes have occurred in placement practices for secondary-level students and how these changes have influenced the quality of student services. Some have argued that inclusion at the secondary level is quite different from elementary inclusion and that it may be desirable for these students to be educated in separate settings for proportionally more of the school day (Bulgren et al., 2006; Schumaker & Deshler, 1987). Related to secondary placements, more research is also needed to better understand inclusive practices that result in improved outcomes for secondary-level students with disabilities and when more restrictive settings result in improved outcomes.

Finally, more research is needed to better understand why most students with ID continue to be segregated from their general education peers for much or all of the school day. This circumstance exists in spite of the fact that much research evidence, available for more than 40 years, reveals that these students do not reap particular benefits from highly restrictive placements and can often significantly benefit from placements in GE classrooms (Dunn, 1968; Freeman & Alkin, 2000; Goldstein et al., 1965; Hardman & Dawson, 2008).

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