This study provides an evaluation of the national and state level educational environmental placement trends for students, ages 6-11 or 12-17, with learning disabilities (LD), emotional disabilities (ED), mental retardation (MR), or speech and language impairments (SLI) in the decade following implementation of the Regular Education Initiative (REI) promulgated in the late 1980s. REI called for greater access to general education curricula for students with disabilities and led to changes in the Individuals with Disabilities Education Act and the ideology of inclusion. Results reveal overall small, but statistically significant, increases in the use of more inclusive environments since the REI, but the extent of changes varied at the state level, between age groups and among disability categories. Students with speech language impairments or learning disabilities were placed in general education environments at a higher rate than those identified as emotionally disturbed or mentally retarded. Analysis also indicated that the percent of students with disabilities receiving services outside general education more than 60% of the time remained relatively consistent from 1989 to 1999. Finally, the study found temporal relationships between changes in placement rates and the implementation of federal reforms directed toward improved educational outcomes for students with disabilities through greater inclusion in general education. (Contains 19 references.) (DB)
Running Head: Special Education Practices: Placement Trends

Special Education Practices: An Evaluation of Educational Environmental
Placement Trends Since the Regular Education Initiative

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Paper presented at AERA Annual Meeting, Chicago, IL

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Abstract

This study provides an evaluation of the national and state level educational environmental placement trends for students, ages 6-11 or 12-17, with learning disabilities, emotional disabilities, mental retardation or speech and language impairments in the decade following the implementation of the Regular Education Initiative (REI). Results reveal small, but statistically significant increases in the use of more inclusive environments having occurred since the REI for some, but not all groups of students with disabilities. Moreover, the study demonstrates that the percent of students with disabilities receiving services outside general education more than 60% of the time remained relatively consistent from 1989 to 1999. Finally, this study demonstrates temporal relationships between changes in placement rates and the implementation of federal reforms directed toward improved educational outcomes for students with disabilities through greater inclusion in general education.
Special Education Practices: An Evaluation of Educational Environmental Placement Trends Since the Regular Education Initiative

Since the 1950s, the improvement of the American educational system has been part of our national political agenda. Each successive administration since President Eisenhower has initiated some type of educational reform (Ravitch, 1983; Spring, 1998). Since the 1980s, educational reform initiatives and policies have focused on the inclusion of disenfranchised groups of students, including students with disabilities, in quality educational activities and environments with the goal of providing these students with greater opportunities for a prosperous adult life (Spring, 1998; Tye, 2000). One such initiative, the Regular Education Initiative (REI), promulgated in the late 1980s, (Beirne-Smith, Patton, & Ittenbach, 1994; McKinney & Hocutt, 1988) called for a greater commitment to providing quality education, including access to general education curricula, for students with disabilities.

In response to the REI as well as subsequent comprehensive educational reform initiatives, changes made to the Individuals with Disabilities Education Act (IDEA), court decisions, and the advocacy of parents, educators, and students with disabilities, an ideology of inclusion has permeated school discourse around choosing educational environmental placements for students with disabilities. The overall affects of this ubiquitous ideological focus on actual placement trends for students with disabilities remain unclear. The primary goal of this study was to determine, through the description of state and national placement trends, whether educational placements made for students with disabilities during the decade following the REI paralleled the ideological inclination toward greater inclusion in general education environments prevalent in the professional dialogue and federal educational reforms and policies implemented.
since the end of the 1980s.

Background Perspective

Inclusion, as an educational practice, has evolved over the past three decades. In the 1970s, children with disabilities gained entry into segregated classes within public school buildings through the efforts of advocacy groups, parents and educators, court decisions and acts of Congress (Beirne-Smith et al., 1994; Ravitch, 1983). With the passage of the Education for All Handicapped Children Act (PL 94-142) in 1975, public schools were required to provide a free, appropriate public education (FAPE) in the least restrictive environment (LRE) for all students with disabilities (Kavale & Forness, 2000). Since 1975, the issue of including students with disabilities in regular classroom environments and activities has sustained the attention of special education professionals, advocates for students with disabilities, parents, and academic researchers alike. A decade later, the issue of inclusion pervaded general education reform initiatives (Stainback, 2000).

Beginning in the 1980s, comprehensive school reforms including the Regular Education Initiative (REI) and Goals 2000: The Educate America Act have focused on increasing educational benefits for all students, including those with disabilities (National Research Council, 1997; Will, 1986). These policies advocate for high educational standards for all students through full and active participation in regular education environments in heterogeneous groups (National Research Council, 1997; Odden, 2000; Will, 1986). The ideology to include all students in educational reforms has continued to be a recurrent theme in comprehensive educational reform efforts and policies throughout the 1990s and 2000s.
Related Literature

Research examining the correspondence of inclusive ideology and educational environmental placement practices for students with disabilities is lacking from the literature. In general, research on the educational environmental placement practices for students with disabilities has been limited. Existing studies using data from the Office of Special Education Programs (OSEP) have considered national and state educational placement trends across and between disability categories. More specifically, existing studies have evaluated placement trends for (a) students with specific disabilities (i.e., learning disabilities, emotional disturbances, etc.) (Coutinho & Oswald, 1996; McLeskey, Henry, & Axelrod, 1999; McLeskey & Pacchiano, 1994), (b) across and between all disability categories (McLeskey, Henry, & Hodges, 1999; Sawyer, McLaughlin, & Winglee, 1994; Whorton, Siders, Fowler, & Naylor, 2000), as well as (c) from a national (Sawyer et al., 1994; Whorton et al., 2000) and (d) a state perspectives (McLeskey & Henry, 1999). Although some studies have examined service provision to students at different age groups, no studies exist that specifically compare differences in environmental placement trends for elementary (i.e., ages 6-11) and secondary (i.e., ages 12-17) students over the decade since the REI. In addition, no studies directly compare placement trends of individual states with corresponding national placement trends. Finally, a comprehensive literature search identified no study that considered the temporal relationship between the implementation of federal reform initiatives, legislation or policies and changes in placement trends for students with disabilities.

Method

This study was planned to illustrate existing phenomena (i.e., state and national trends in
the placement of students with disabilities) through an examination of historical data. More specifically, the study was designed to (a) describe the nature and extent of changes in national trends in educational environmental placement rates of students with disabilities over the years since the Regular Education Initiative (REI), (b) examine how placement trends evident in individual states compare with those demonstrated at the national level, and (c) determine if changes demonstrated in national placement trends coincide with the implementation of federal educational reforms, policies or legislation.

Visual and quantitative analyses of archival data collected from Office of Special Education Programs databases and Annual Reports to Congress on the Implementation of the Individuals with Disabilities Education Act were employed to determine the nature and extent of placement trends from 1989 to 1999. Data evaluated reflected the percent of students in either of two age groups (i.e., 6-11 or 12-17 years old) receiving special education services within general education less than 21%, between 21 and 60%, or more than 60% of the school day under one of the four high incidence disabilities categories (i.e., Emotional Disturbance (ED), Specific Learning Disabilities (LD), Speech and Language Impairment (SLI), or Mental Retardation (MR)). The data analyzed was originally collected from state level educational agencies, sorted, and disseminated by the OSEP as required by the IDEA rules and regulations.

State placement data was aggregated and a national mean placement rate was determined for each environment and disability category for each age group. National and individual state data from each of the 50 American states were graphed and quantitatively evaluated through statistical analyses including omnibus tests of repeated measures and paired sample t-tests of means. Biennial placement rate data within age groups, across educational environments, and
between disability categories were evaluated for statistical significance, directional changes and
temporal correspondence with the implementation of four federal level reforms (i.e., the REI,

Results

This study examined a decade of archived OSEP placement data to describe and compare
trends in educational placement of students with disabilities (i.e., LD, ED, MR, or SLI) in each
of three environments (i.e., less than 21%, between 21% and 60%, and more than 60%) at both
the national and state levels since the Regular Education Initiative (REI). Additional analyses
were carried out to determine if changes demonstrated in national placement trends coincide with
the implementation of federal educational reforms, policies or legislation. The results of the
study are presented below and organized by (a) national trends in each environment considered,
(b) state trends as compared with national trends, and (c) temporal associations with trend
changes and reform implementations.

National Placement Trends in the Less than 21% Environment

Generally positive trend lines were evident in graphs of national mean placement rates
for students with disabilities receiving special education services outside of general education
classrooms less than 21% of the time, demonstrating an average increase in the use of this
environment for students in both age groups in all four disability categories. Trend lines for all
disability categories indicated increases in the placement of students with disabilities in this
environment from 1989 to 1995. After 1995, the direction and slope of trend lines varied by
disability (see Figure 1 and 2). Mean placement rates for students, ages 6-11, receiving services
outside of general education less than 21% of the time increased from 1989 to 1995 for students
Figure 1. National Trends: General Education Placements for Students Ages 6-11

**Less Than 21% of the Time**

- **ED**
- **MR**
- **LD**
- **SLI**

**Between 21% & 60% of the Time**

- **ED**
- **MR**
- **LD**
- **SLI**

**More than 60% of the Time**

- **ED**
- **MR**
- **LD**
- **SLI**
Figure 2. National Trends: General Education Placements for Students Ages 12-17

**Less Than 21% of the Time**

- O - ED
- □ - MR
- △ - LD
- ✗ - SLI

**Between 21% & 60%**

- O - ED
- □ - MR
- △ - LD
- ✗ - SLI

**More than 60% of the Time**

- O - ED
- □ - MR
- △ - LD
- ✗ - SLI
under all four disability categories. Net increases in national mean placement rates for the 12-17 age group differed substantially between disability categories. Placement rate increases for students with LD were twice the rate of increase for students with ED or SLI and three times the rate of increase for students with MR. Statistically significant changes occurred in the LD disability category. (See Table 1 and 2).

Although, placement rates increased in all disability categories, few changes met criteria ($\alpha =.01$) for statistical significance in case-wise comparisons. Significant increases in placement rates for students, ages 6-11, with LD occurred in the years 1989 to 1991, $t(49) = 2.95, p = 0.005$ (two tailed) and from 1991 to 1993, $t(49) = 3.12, p = 0.003$ (two tailed). Likewise, statistically significant changes were found to have occurred for students, ages 12-17, in the LD disability category with significant changes occurring from 1989 to 1991, $t(49) = 3.94, p = 0.000$ (two-tailed); from 1991 to 1993, $t(49) = 2.81, p = 0.007$ (two-tailed); and from 1993 to 1995, $t(49) = 2.83, p = 0.007$ (two-tailed). Increases in placement rates in the biennium 1991 to 1993, for students, ages 6-11, with MR, $t(49) = 3.29, p = 0.002$ (two tailed), and in the placement rates of students with ED from 1993 to 1995, $t(49) = 3.40, p = 0.001$ (two tailed), were also found to be significant. Changes in placement rates for students with SLI in both age groups and for students, ages 12-17, with ED or MR did not demonstrate statistical significance ($\alpha =.01$). Omnibus tests of repeated measures of means produced statistically significant values ($\alpha =.05$) for all categories for the younger age group and for 3 of the 4 disabilities categories (i.e., ED, LD, and MR) for the older age group.

National Trends in the Between 21 and 60% Environment

An increase in the use of educational environmental environments outside of general
Table 1

*Net Changes in National Mean Placement Rates for Students With Disabilities Ages 6-11*

<table>
<thead>
<tr>
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<td>ED</td>
<td>11.63</td>
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<td>9.59</td>
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<td>2.53</td>
<td>2.44*</td>
<td>0.08</td>
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<td>-8.91</td>
<td>-4.13</td>
<td>-2.94</td>
<td>-2.17</td>
<td>0.68</td>
<td>-0.36</td>
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<td>ED</td>
<td>-8.24</td>
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<td>-1.73*</td>
<td>-1.29*</td>
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<td>-2.86</td>
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<td>-0.53</td>
<td>-0.31</td>
<td>-0.08</td>
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</tr>
</tbody>
</table>

*Note. Placement rate = percent of students with disabilities placed in that setting; Setting refers to time student receives special education services outside of general education classrooms.*

*p < .01, two-tailed.*
Table 2

*Net Changes in National Mean Placement Rates for Students With Disabilities*

*Ages 12-17*

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>ED</td>
<td>8.54</td>
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<td>3.00</td>
<td>2.25</td>
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<td>LD</td>
<td>18.14</td>
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<td>7.47*</td>
<td>3.53*</td>
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<td>14.97</td>
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<td>2.59</td>
<td>1.09</td>
<td>0.05</td>
<td>-0.09</td>
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<tr>
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<td>7.15</td>
<td>5.73</td>
<td>1.89</td>
<td>2.02</td>
<td>-1.80</td>
<td>-0.70</td>
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<td><strong>Between 21 &amp; 60% setting</strong></td>
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<tr>
<td>ED</td>
<td>-6.42</td>
<td>-1.41</td>
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<td>-2.36</td>
<td>-0.42</td>
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<td>MR</td>
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<td>1.30</td>
<td>0.48</td>
<td>3.15*</td>
<td>0.98</td>
<td>-0.23</td>
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<tr>
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<td>0.60</td>
<td>1.09</td>
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<td><strong>More than 60% setting</strong></td>
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<td></td>
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<tr>
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<td>-3.04</td>
<td>-0.97</td>
<td>-1.44</td>
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<td>LD</td>
<td>-2.31</td>
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<td>-0.26</td>
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<td>1.13</td>
<td>-0.85</td>
<td>0.25</td>
<td>0.38</td>
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</tbody>
</table>

*Note. Placement rate = percent of students with disabilities placed in that setting; Setting refers to time student receives special education services outside of general education classrooms.*

*p < .01, two-tailed.
education classrooms between 21 and 60% of the time was evident in graphs and quantitative analyses of placement rate data for students with MR in both age groups. In contrast, a generally decreasing trend in the use of this placement emerged in analyses of placement rate data for students with ED or LD in both age groups. National trends for the use of this environment for students with SLI varied with age. For students with SLI, in both age groups, the placement trend demonstrated a negative slope from 1989 to 1995 and varied in magnitude and direction from 1995 to 1999 (see Figure 1 and 2).

Mean placement rates for students, ages 6-11, with MR in this environment increased at least 2% in each biennium for most of the decade while variations in the magnitude of increases in the mean placement rates for students, ages 12-17, with MR ranged from a low of 0.05% to a high of 2.59%. In contrast, decreases ranging from just under 1% to almost 14% occurred across the decade for students with ED, LD or SLI in the younger group and from under half a percent to almost 15% for students in the older age group (see Table 1 and 2). Although a net decrease in mean placement rate occurred in the ED, LD and SLI categories of students in the younger age group, the magnitude of those decreases differed within each. The most appreciable decreases were seen from 1989 to 1995 followed by small increases in the 1995 – 1997 biennial period.

Changes in placement rates of students, ages 6-11, demonstrated from 1995 to 1997 in the category of MR, \( t(49) = 3.13, p = 0.003 \) (two tailed), and for students with MR, ages 12-17, \( r \) from 1993 to 1995, \( t(49) = 4.25, p = 0.000 \) (two-tailed) were found to be statistically significant in case-wise comparisons (\( \alpha = .01 \)). Significant decreases were also seen in the changes in placement rates for students, ages 12-17, with LD, from 1989 to 1991, \( t(49) = -3.35, p = 0.002 \) (two-tailed), and from 1991 to 1993, \( t(49) = -2.94, p = 0.005 \) (two-tailed). Changes in placement
rates for students, regardless of age group, with ED or SLI did not meet criteria for significance ($\alpha = .01$). Omnibus tests of repeated measures of means produced statistically significant ($\alpha = .05$) values for the disability categories of LD, MR, and SLI for the 6-11 age group and ED, LD, and MR for the 12-17 age group.

National Trends in the More than 60% Environment

Graphs of placement data for students with disabilities, ages 6-11, receiving special education services outside of general education classrooms more than 60% of the time demonstrated decreasing trends over the 10 year period for three of the four disability categories (i.e., ED, MR, and LD). Negatively sloped trend lines emerged in all three categories from 1989 to 1995. After 1995, observed trend lines varied in direction and degree of change. A consistently flat trend line emerged in graphed placement rate data for students with SLI in this environment (see Figure 1). National placement trends for this environment for students, ages 12-17, demonstrated little change across the decade. Visual inspections of graphs of national mean placement rate data revealed a generally decreasing placement trend in this environment for students MR but only minimal variations were apparent in the magnitude or direction in ED, LD, or SLI trend lines (see Figure 2).

National mean placement rates for students, in both age groups, with ED, MR, or LD were found to have generally decreased across the decade, however, the magnitude of decreases seen varied by disability. Net changes in mean placement rates for students, ages 6-11, ranged from a decrease 0.6% (i.e., students with SLI) to a decrease of 13% (i.e., students with MR) (See Table 1). National mean placement rates for students, ages 12-17, with ED, LD, or MR also decreased from 1989 to 1999, however, the range of changes were more substantial than seen in
the 6-11 age group (see Table 2). Placement rates for students, ages 12-17, with MR decreased twice as much as did placement rates for students with ED and three times as much as placement rates for students with LD. A net increase of 1.05% occurred in the placement rates for students with SLI from 1989 to 1999.

Statistically significant changes in placement rates of students, ages 6-11, occurred within 3 of the 4 disability categories, but at different times during the decade. Significant changes were demonstrated in the LD category from 1991 to 1993, $t(49) = -2.81, p = 0.000$ (two-tailed), from 1993 to 1995, $t(49) = -3.67, p = 0.001$ (two-tailed), and from 1995 to 1997, $t(49) = -3.61, p = 0.001$ (two-tailed). A significant decrease in placement rates for students with MR, $t(49) = -3.46, p = 0.001$ (two-tailed), occurred from 1991 to 1993. Finally, significant changes in placement rates for students with ED were evident from 1993 to 1995, $t(49) = -4.31, p = 0.000$ (two-tailed). Changes in placement rates for students with SLI were not found to be statistically significant in case-wise comparisons ($\alpha = .01$). For students ages 12-17, statistically significant decreases in the placement rate in this environment occurred between 1993 and 1995 with MR, $t(49) = -2.73, p = 0.009$ (two-tailed), and with LD, $t(49) = -2.72, p = 0.009$ (two-tailed). Changes for students with ED or SLI in any environment did not meet criteria for statistical significance ($\alpha = .01$) in case-wise comparisons. Omnibus tests of repeated measures of means produced statistically significant ($\alpha = .05$) values for the 6-11 age group in the disability categories of ED, LD, and MR and for the disability categories of LD and MR for the 12-17 age group.

State Trends Compared with National Trends

Visual inspections of state graphs and quantitative analyses of individual state placement rate data for students in each disability category, age group, and environment were completed. In
comparisons with trends demonstrated in analyses of national mean placement rate data, state level placement trends were seen to vary substantially with national trends both across and between disability category and age group across environments. Individual state data demonstrated a considerable range in placement rates and placement patterns across the decade. In general, trends evident in state graphs did not generally mimic national placement rates and trends, based on aggregated data, particularly in the two more inclusive environments (i.e., less than 21% and between 21% and 60%) across all disability categories and both age groups. State level placement rates included extremes and net changes of less than +/- 1% in placement rates across the decade not apparent in cumulative national mean placement rates.

Several states (e.g., Kentucky, Kansas, and North Carolina) demonstrated placement trends and rates for students with disabilities in all categories, environments, and both age groups similar to those seen in the graphs of national mean placement data. However, more frequently, state graphs did not consistently mirror trends described by the national mean placement rate data. Some state graphs (e.g., Alaska, Delaware, Florida, Hawaii, Mississippi, Missouri, Montana, and New Mexico) revealed fluctuating placement trends (i.e., increasing or decreasing) across the decade. Others (e.g., Arizona, Colorado, Indiana, Iowa, Minnesota, New York, South Dakota, and West Virginia) demonstrated substantial changes in the magnitude of placement rate in a specific environment, disability category, or age group at one or more times across the decade, creating a positive or negative spike in a trend line. Many of the graphs of state data (e.g., Illinois, Louisiana, Virginia, Vermont) displayed trend lines with flat profiles indicating minimal change in placement trends or rates across the decade.

Quantitative evaluation of state placement rates generally revealed increasing trends in
the use of the less than 21% placement environment for students across disability categories in both age groups. The use of this environment increased in at least 80% of states for students, ages 6-11 and in at least 65% of states for students ages 12-17 with ED, LD, or MR. Increasing placement trends in this environment were evident in a smaller percent of the states for students with SLI in both age groups receiving services. Decreasing use of the between 21% and 60% environment was evident in at least 70% of the states for students with LD in both age groups and for students with ED in the 12-17 age group, but fewer than 50% of states for students with SLI. Increased use of the between 21% and 60% environment was seen in at least 70% of states for students with MR in both age groups. Decreasing placement trends in the more than 60% environment were evident in at least 50% of the states for students with ED, LD, MR, or SLI ages 6-11 and in at least 60% of states for students with ED, LD, or MR, ages 12-17. Although trends for students with SLI in both age groups remained fairly consistent across the decade, increasing placement of students with SLI in the older age group in this environment was evident in at least 50% of the states.

**Temporal Associations with Trend Changes and Reform Implementations**

Visual and quantitative evaluations demonstrated increases in the use of the less than 21% environment for students in younger age group, across all disability categories in each biennium subsequent to the implementation of the REI, IDEA 1990, Goals 2000 and the IDEA 1997. Placement rates in this environment increased in each biennium following the REI, IDEA 1990 and Goals 2000 for students, ages 12-17, regardless of disability category. Only the placement rates in this environment increased for students with ED or LD in the older age group after implementation of the IDEA 1997.
Decreased use of the between 21% and 60% environment for students with ED, SLI or LD, and increased use of this environment for students with MR in both age groups followed three of the four reforms (i.e., the REI, Goals 2000, and IDEA 1990). Placement of students with SLI, ages 12-17, in the between 21% and 60% environment increased following the IDEA 1997 while placement for students with MR in this age group in this environment decreased. Decreased placement in the more than 60% environment followed all four reforms for students, ages 6-11, across all categories and for students, ages 12-17, with ED, LD, or MR following the REI, IDEA 1990, and Goals 2000. Placement of students ages 12-17 in the more than 60% environment increased for students with LD, MR, and SLI, but decreased for students with ED following the IDEA 97.

Case-wise comparisons of placement rate data demonstrated statistically significant ($\alpha = .0125$) changes in the use of the less than 21% environment following the REI for students with LD, ages 6-11, $t(49) = 2.95, p = 0.005$ (two-tailed), and ages 12-17, $t(49) = 3.94, p = 0.000$ (two-tailed), the IDEA 1990 for students with LD, ages 6-11, $t(49) = 3.12, p = 0.003$ (two-tailed), students with MR, ages 6-11, $t(49) = 3.29, p = 0.002$ (two-tailed), and students with LD ages 12-17, $t(49) = 2.81, p = 0.007$ (two-tailed), and the Goals 2000 for students with ED ages 6-11, $t(49) = 3.40, p = 0.001$ (two-tailed), and students with LD ages 12-17, $t(49) = 2.83, p = 0.007$ (two-tailed). Analyses of placement rate data for the between 21% and 60% environment demonstrated statistically significant ($\alpha = .0125$) changes in use of following the implementation of IDEA 1990 for students with LD ages 12-17, $t(49) = -2.94, p = 0.005$ (two-tailed) and Goals 2000 for students with MR ages 12-17, $t(49) = 4.25, p = 0.000$ (two-tailed). Finally, changes in placement of students in the more than 60% environment demonstrating significance ($\alpha = .0125$)
occurred in the biennium following the IDEA 1990 for students with LD ages 6-11, \( t(49) = -2.81, p = 0.007 \) (two-tailed), and for students with MR, \( t(49) = -3.46, p = 0.001 \) (two-tailed) and the Goals 2000 for students with LD ages 6-11, \( t(49) = -3.67, p = 0.001 \) (two-tailed), and ages 12-17, \( t(49) = -2.72, p = 0.009 \) (two-tailed), met criteria for significance \((\alpha = .0125)\) as did changes in the placement rates for students with ED ages 6-11, \( t(49) = -4.31, p = 0.000 \) (two-tailed), and for students with MR ages 12-17, \( t(49) = -2.731, p = 0.009 \) (two-tailed). None of the changes in placement rates in any environment or for students in either age group following the implementation of IDEA 1997 met criteria for significance \((\alpha = .0125)\) in case-wise comparisons of means.

**Discussion**

Results of this study demonstrate that increases in the placement of students with disabilities in more inclusive environments occurred in the decade following the REI, but the extent of those changes were shown to have varied at the state level, between age groups and disability category. Students with SLI in both age groups were shown to be the population most consistently included in general education environments. Categorical differences in placement trends revealed that students with LD or SLI were placed in general education environments at a higher rate than those identified under the categories ED or MR. Placement rates in the more than 60% environment for students also demonstrated consistency across the decade, particularly for students with ED or MR. Students with ED were shown to be at least 3 times greater than those of students with LD and 5 times greater than those for students with SLI placed in that environment. Similarly, placement rates for students with MR served in the more than 60%
environment were almost 5 times greater than those for students with LD and at least 9 times
greater than the placement rates of students with SLI.

Differences in placement trends between the two different age groups were also revealed
in this study. Although the general national trends were directionally similar for both age groups
in most environments, the percent of students placed within the three different environments
differed by age group. Placement rates for younger students in the less than 21% environment
were generally higher than those of students in the 12-17 year old age group. In contrast, the
percent of students ages 12-17 receiving services in the between 21 and 60% environment was
generally higher than were those in the 6-11 age group. Placement rates for students with LD or
MR placed outside general education more than 60% of the time were almost equal for both age
groups, while twice the percent of older students with SLI were placed in this environment than
were younger students. A greater percent of younger students with ED received services in the
more than 60% environment than did older students. Finally, national mean placement rates for
students with MR receiving services outside of general education more than 60% of the time
exceeded 50% for both age groups.

The results of this study indicate that the nationally reported educational environmental
placement trends based on analyses of the mean aggregated placement rates as reported to OSEP
do not truly represent actual trends at the state level. Substantial variation in state level trends
occurred across the decade with some states demonstrating significant changes in placement
rates for students with disabilities and others demonstrating almost no change at all. When
aggregated to create a national mean placement rate, extremes in state trends either offset or
skew data creating a less than accurate picture of placement trends in America. In addition, this
study revealed substantial differences in the number of states reflecting placement trends or rates observed in analyses of national aggregated data depending upon the disability category, environment or age group considered.

Finally, temporal correspondence with the implementation of federal initiatives and reforms associated with increased inclusion of students with disabilities in general education varied more substantially by disability category than by age group. Findings indicate that a greater number of statistically significant changes in placement rates for students with ED, MR, or LD followed the 1990 reauthorization of the IDEA and the implementation of Goals 2000, than occurred in the biennium following the REI. After the REI, significant increases in the placement of students in more inclusive environments primarily occurred for students with LD. Changes in aggregated national placement rates following the 1997 reauthorization of the IDEA were not found to be significant for any disability category in any environment or either age group. The lack of significant change demonstrated in the biennium following the IDEA 1997 may reflect effects of the late release of the rules and regulation documentation associated with the reauthorization process. Further analysis of subsequent child count data may produce evidence of significant change in placement rates not evident in this data set.

The Relationship of Findings to Previous Research

The findings of this study are consistent with results obtained in previous research of educational environmental placements of students with disabilities across the nation (McLeskey, Henry, & Hodges, 1998; Sawyer et al. 1994) and disability categories (Coutinho & Oswald, 1996; Katsiyannis et al. 2002; McLeskey et al. 1999; Sawyer et al. 1994; Whorton et al. 2000). Similarly, findings of this study regarding state level placement trends also support work in
previous studies demonstrating the existence of state and regional variations in placement trends (e.g., Katsiyannis et al. 2002; McLeskey & Henry, 1999). This study also supports the conclusions reached by previous researchers that decreases in the use of resource environments (i.e., between 21% and 60%) mirrored increases seen in the less than 21% environment (Coutinho & Oswald, 1996; Katsiyannis et al. 2002; McLeskey et al. 1998). Evidence from this study also supports conclusions by previous researchers that students with LD or SLI are placed more frequently in more inclusive environments than are students with ED or MR (e.g., Coutinho & Oswald, 1996; Katsiyannis et al. 2002; McLeskey et al. 1999; Sawyer et al. 1994).

Results of this study contradict some of the results found by McLeskey and Henry in their 1999 work. McLeskey and Henry identified 6 placement trends evident within the state data and identified specific states that demonstrate each specific trend. The findings of this study failed to replicate McLeskey's categorization of specific states. This contradiction may reflect variations in measures due to McLeskey's use of the Cumulative Placement Rate statistic, the use of single year periodic measures, or from the employment in this study of more recent data than was used in the McLeskey and Henry study (McLeskey & Henry, 1999). The findings of this study neither diminish nor undermine the conclusions of McLeskey and Henry.

The findings in this study extend those of previous studies in several ways. First, the data set examined extended beyond that of previous studies, thereby providing information regarding placement trends at the later half of the decade previously unreported. Second, statistical analyses of placement trends and periodic changes in placement provide previously unsubstantiated information about the nature and extent of changes in the educational environmental placements of students with disabilities. Third, this study explored temporal
relationships between changes in placement rates evident in national and state data and the implementation of federal reforms, policies, and legislation. Although prior studies discuss the role of federal initiatives and legislation in mediating changes in placement practices, none actually investigate the chronological associations between the implementation of federal initiatives and changes in educational environmental placement trends. Finally, this study provides the first empirical evidence that placement trends vary by age group.

Limitations

As with any study, several limitations should be acknowledged in the consideration of the results of this study. First, although potential threats to validity due to historical factors were controlled through design, the true contribution of any particular federal reform or initiative to placement trends demonstrated remains unknown. Second, changes in the OSEP data collection procedures and operational definitions may have contributed to trends observed. However, since this study examined the percent of students in each placement by category and not the number of students in each category served, changes in child counts due to changes in collection procedures or operational definitions do not constitute a significant threat to the study’s validity. Finally, the quality of the OSEP data set is frequently called into question. The accuracy with which local and state education agents report student counts to the federal monitoring agency cannot be controllable through design or analysis. Human error in interpretation of reporting guidelines, accuracy of interpretation and application of definitional categories and accounting errors are unknowns that limit the level of confidence one can put in the data used in this study. However, the federal monitoring agents from OSEP and the Department of Education demonstrate significant confidence in the accuracy of the data collected to allow them to present that data to
the United States Congress as indication that free and appropriate education is being provided to all children with disabilities (U.S. Department of Education, 2000). Such confidence suggests that while a limitation, the potential effects of possible human errors in reporting are minimal. The extensive use of the OSEP data by researchers and advocates to refute or support their various positions further substantiates its perceived worth as a data source.

**Implications**

This study provides insights into national and state level placement trends of both elementary and secondary students receiving special education services under the disability categories of ED, MR, LD, or SLI. It provides descriptive evidence of changing or static placement patterns for students in different age groups and disability categories at both the state and national levels in the decade since REI. Additionally, it demonstrates temporal associations between changes in placement trends and the implementation of several important federal level educational reforms that occurred during the decade. These findings have implications for future research, educational practice, and policy creation.

Findings in this study demonstrate that small, but significant changes in educational environmental placement rates for students with disabilities in some disability categories and age groups occurred in the decade since the REI. Most significant changes reflect movement into more inclusive environments. Although academic, advocacy, and political discourses encourage inclusive placements for most students with disabilities, the value and potential educational benefit of such environments for students with differing educational characteristics remains unclear. In addition, contextual elements that hinder or facilitate educational benefits within each environment have yet to be comprehensively examined across a large special education
population at different developmental levels. Future study of the conditions that facilitate the most beneficial school outcomes for students with disabilities would help to substantiate trends demonstrated in this study as evidence of progressive, effective, special education practice as well as to inform inclusive ideological debates amongst academics, politicians, and advocates.

In light of the slow degree of change made evident in this study, the rapid succession of federal initiatives and reauthorization cycles may not provide adequate time for schools districts and building level staffs to completely understand and implement new or revised reforms. Moreover, new reforms should be based on the successes and failures of past efforts. Sufficient time between reforms must be allowed so that the results of previous reforms can be adequately demonstrated, collected, and analyzed before new or revised reforms are promulgated. In particular, the seven-year IDEA reauthorization cycle, in light of the findings in this study, appears to be too short. Advocacy activities and policy deliberations for each reauthorization start at least two years before the reauthorization due date. As such, the data employed to support changes to mandates for educational placements or practices for students with disabilities reflects only four or five years from the implementation of the last reauthorization. In addition, systemic organizational change takes time and the implementation of new school practices may take seven to eight years to complete and even longer to produce the anticipated or desired effects (Fullan, 2001). Therefore, federal reauthorization cycles should be reconsidered and extended to allow more time for full implementation and assessment of changes made to earlier legislation.

This study demonstrates that caution should be taken when employing the aggregated national data as distributed by OSEP when supporting or refuting special education policies or practices, particularly as they relate to student placement rates. State level extremes significantly
Placement Trends

affect the national mean placement rates, creating national trends that do not accurately depict placements of students with disabilities across America. Despite the potential flaws in this data set, it remains the most comprehensive special education data available and is likely to continue to be used in policy-making and research endeavors by advocates, politicians, and academics alike. The findings of this study imply that additional qualitative and more detailed quantitative data from local or state school agents (e.g., teacher or administrators) should be collected and used in concert with the OSEP data in any discussion of the failures or successes of special education.

Due to the design and nature of this study, relationships between the placement trends observed and students' unique educational needs relative to disability characteristics or age were not discernable. Similarly, the conditions, attitudes, and organizational structures that have either facilitated or limited greater inclusion of students in general education across the decade were not adequately explored. Further investigation is needed to determine what factors (e.g., grade level expectations and practices, and student characteristics) contribute to placement trends demonstrated. Such research would provide beneficial insights into factors that fostered the placement trends observed in this study. In addition, studies of the qualitative difference between student populations may contribute to new ways of classifying students for special education services based on student characteristics instead of categorical labels and provide insights into the contextual elements and environments that best meet the educational needs of students with similar characteristics.

Generalization of placement practices or assumptions of the value of one environment over another across disability categories or age groups may not be appropriate. Evidence in this
study demonstrated that placement trends remained relatively consistent for students with particular types of disabilities and age groups. These findings suggest that, if we assume that placements made for the students represented in the study represent the LRE for those students as determined through accurate application of the Individual Education Plan process, the less than 21% setting is not determined to be the most appropriate placement for a relatively large percent of students with disabilities. Given the consistency of the placement rates demonstrated across the decade, this study supports the need to maintain a continuum of environments for students with unique educational characteristics that make such environments the most appropriate placement option. More research is needed to explicate the conditions and circumstances that maintained the static trends seen in use of these more restrictive placement options.

In the decade since the REI, the numbers of students receiving special education services has increased substantially. As such, minimal changes in the percent of students placed in any environment demonstrated across the decade represents a sizeable increase in actual number of students served in that placement. A 20% placement rate of students in the more than 60% environment in 1999 represents a greater number of students than it did in 1989. Moreover, the consistency of the placement of students, particularly those with ED or MR, in the more than 60% environment remained relatively constant since the REI truly demonstrates an increase in the actual numbers of youth educated in this most segregated setting. If the placement data is assumed to truly represent the most appropriate LRE for the students as determined by accurate application of the Individual Education Plan (IEP) process, then the findings of this study support the need for greater attention be given to improving the quality and breadth of the
educational experiences and the educational outcomes for students placed in these environments as is paid to improving the education provided to students placed within more inclusive environments.
References


we making progress? *Exceptional Children*, 60(6), 508-517.


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