Placement of Students with Extensive Support Needs in California School Districts: The State of Inclusion and Exclusion

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Abstract

Access to general education settings for students with disabilities varies greatly among and within states across the United States and worldwide. The variability in placement and lack of access to general education for students with disabilities, particularly students with extensive support needs, are reasons to identify factors associated with placement and then address the role of current policy. Explored in this study were the placement of students with extensive support needs in 938 school districts across the State of California in the United States and the relationship between placement and economic and demographic factors. Results suggest alarmingly low access to general education classrooms for students with extensive support needs, significant variability in placement, and relationships between placement and factors, such as total enrollment, race, and expenditure.

Keywords: Extensive Support Needs, Special Education, Least Restrictive Environment, Inclusive Education

Introduction

A continued focus on access to placement in regular classes for students with disabilities (SWD) is apparent across the United States and many other countries (Ainscow & Cesar, 2006; Drudy & Kinsella, 2009). In fact, Article 24 of the United Nations Convention on the Rights of Persons With Disabilities (United Nations, 2006) recognizes that establishing inclusive education is essential to realizing the human rights of people with disabilities. Despite the increasing attention on placement in regular classes for SWD, many SWD, particularly those with extensive support needs (ESN; e.g., intellectual disability, autism, and multiple disabilities), continue to be educated apart from their peers without disabilities (European Agency for Development in Special Needs Education, 2010; Morningstar, Kurth, & Kozleski, 2014). Furthermore, there is significant variability in placement in, or access to, general education for SWD across various countries (European Agency for Development in Special Needs Education, 2010), across states in the United States (Kurth, 2015; Kurth, Morningstar, & Kozleski, 2014), and across districts within states (Cosier, White, & Wang, 2018). Given that a number of international organizations and initiatives cite the importance of placement and access for SWD (United Nations, 2006; United Nations Sustainable Development Goals, 2015), research into factors associated with placement may be applied to future policy and practice that continue to push for increased access for all SWD, particularly those students with ESNs who often have the least access (U.S. Department of Education, 2017).

The purpose of this study was to investigate the variability in placement in regular classes and separate settings across districts in California, and factors related to the variability of educational environments for SWD, with a focus on students with ESNs.

As with many countries, the United States continues to work toward increased placement in regular classes with relative success for some SWD (e.g., students with specific learning disability labels) and few increases in access to regular classes for others, such as students with intellectual disabilities (Cole, Murphy, Frisby, Grossi, & Bolte, 2019; Kurth, Morningstar, & Kozleski, 2014). This lack of progress is concerning given states and districts across the United States are required to adhere to policies related to placement, with the guiding least restrictive environment (LRE) principal suggesting a preference for placement in the general education classroom (Yell, 2015).

In regard to preference for access to regular classes, the Individuals With Disabilities Education Act (IDEA; the law that governs special education in the United States) articulates the principle of LRE, stating SWD should be included with their nondisabled peers in the general education classroom "to the maximum extent appropriate" (IDEA, 2004, para. 2[i][i]) and removed from the regular education environment only when this education, even with "the use of supplementary aids and services[,] cannot be achieved satisfactorily" (IDEA, 2004, p. 2[a][5][A]). This principle of the act was created with a presumption of access to general education settings (Yell, 2015), yet there is no specific right to access or clear guidelines for implementing this preference. This creates a situation where states and districts are left to interpret the LRE principle as they see fit. The lack of clarity may lead to variation in implementation of such state and federal policy by school- and district-level administrators (Irvine, Lupert, Loremar, & McGhie-Richmond, 2010). These significant differences in access to general education classes among states and districts (Kurth et al., 2014) underscore the shortcomings associated with the LRE principle (Sauer & Jorgensen, 2016).

Nationally, districts and states vary widely in placement practices for SWD (Brock & Schaeffer, 2015; Kurth et al., 2014). This is particularly true for students with ESNs, such as those with emotional behavioral disability (Reddy, 2001; Villarreal, 2015), intellectual disability (Cosier, White, & Wang, 2018; Porter, 2004), autism (U.S. Department of Education, 2017), and multiple disabilities (Kleiner, et al., 2015). For example, in California, approximately 6% of students with intellectual disabilities spend 80% or more of the day in a general education classroom. This is in sharp contrast to Iowa, where approximately 64% of students with intellectual disabilities spend 80% or more of the day in a regular class (U.S. Department of Education, 2017).

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of Education, 2017). This same variability is evident between districts and within states among intellectual disability and other disability categories, such as autism (Kurth et al., 2014). Despite the significant variability in placement for SWD, little research exists on the factors associated with placement at the district level, nor have researchers attempted to tease out factors related to such variability that can then be used to inform current and future policy.

Addressing variability and factors associated with placement have direct implications for policy. This includes the identification of trends and factors associated with placement and how they can be addressed via policy mechanisms. Schools, districts, and the state may then be able to make changes in policy and practice that support increased access to general education in systemic, meaningful, and sustainable ways. Prior to identifying specific relationships, identifying placement trends for SWD across districts provides essential information on how current policy is implemented. Moreover, identifying specific relationships between factors associated with placement, such as race (Donovan & Cross, 2002), may create awareness of the need for policy that addresses race and placement in districts across the state. Furthermore, funding issues may be identified that call for the need for additional resources, including personnel and professional development on the inclusion of SWD, especially students with ESNs, in general education settings.

This study is grounded in research in a number of areas related to placement of individuals with disabilities, including the variability in opportunities for access to general education curriculum and contexts (Brock & Schaefer, 2015), relationships between access to general education contexts and demographic and economic factors (Cosier & Causton-Theoharis, 2010), and the relationship between access to general education contexts and achievement (Cosier, Causton-Theoharis, & Theoharis, 2013). This particular study focuses on students with various disability labels, recognizing access to general education varies greatly by disability label, with stagnant growth in access to general education for students considered to have more ESNs, such as those with intellectual disability, autism, and multiple disability labels. While analysis encompassed six disability eligibility categories (specific learning disability, other health impairment, autism, intellectual disability, multiple disabilities, and emotional and behavioral disability), this study’s focus was on disabilities encompassed in ESNs, including autism, intellectual disability, and multiple disabilities. Moreover, the study design is grounded in prior scholarship acknowledging factors associated with placement, such as geographic location (Brock & Schaefer, 2015; Kurth et al., 2014), race/ethnicity (e.g., Donovan & Cross, 2002; Fierros & Conroy, 2002; National Council & Schaefer, 2015; Kurth et al., 2014), expenditure (Cosier & Causton-Theoharis, 2010), and income/socioeconomic status (O’Connor & Fernandez, 2006; Szumski & Karwowski, 2012).

The research cited provides comprehensive information on placement nationally and in certain states, such as Ohio (Brock & Schaefer, 2015) and New York (Cosier, White, & Wang, 2018). As states have different policies and practices, identifying trends and relationships in a specific state may provide that state with the necessary specific information to address the unique policy and practice recommendations. As California moves toward more inclusive practices, this information could be critical in decision making around future policy, not only in California. There is currently no available research on placement and factors related to students with ESNs in the State of California. To address this gap in the research, two primary research questions associated with placement trends in California were the focus of this study: (a) Is there significant variance across California school districts in the degree to which they include and exclude students in similar disability categories? and (b) What school district factors are associated with placement in general education or separate settings of students with ESNs across school districts?

Method

To address the research questions, we used descriptive and inferential analysis, and descriptive geographic information systems (GIS) mapping of district-level data, across the State of California. Descriptive analyses and GIS mapping were used to identify trends in placement across the state. We used regression analyses to parcel out potential factors associated with placement, including racial and ethnic composition of SWD, number of SWD in the district, percentage of students receiving free or reduced priced meals, and per pupil expenditure.

Data

Using the most current data available from the California Department of Education at the time of this study (2016-2017), we eliminated entries in the database that represented homeschooled, very small local educational agencies (LEAs), or districts where the LEA represented a single school. For example, for this analysis, we excluded the single independent charter schools that act as an independent LEA, as they cannot be compared to entire districts in this type of analysis. However, we understand such LEAs provide valuable information, and we intend to design a study in the future that allows for increased attention to such LEAs. After eliminating outliers, 938 school districts remained in the dataset.

Categories of disability

While we included three main categories of disability to identify students with ESNs (autism, intellectual disability, and multiple disability), additional placement categories were trimmed from our analysis due to their low incidence rates. These low numbers per district were exacerbated by the fact that state reporting, to protect the confidentiality of individual students, included an asterisk in categories with 11 or fewer students. Therefore, these districts were not included in our analyses. These categories represented a total of 3.67% of the total population of SWD in California and include deaf-blindness (0.01%), deafness (0.42%), hard of hearing (1.37%), orthopedic impairment (1.35%), traumatic brain injury (0.21%), and visual impairment (0.45%). The California category of established medical disability (0.06%) was also trimmed for the same rationale.

Composite indices

Across the 938 remaining school districts, we developed composite indices used to provide a clearer interpretation of inclusion and exclusion based on the level of needs of students in each category. The Extensive Needs group, which is the focus of the research represented in this particular portion of the study, included three categories: (a) autism, (b) intellectual disability, and (c) multiple disability.

Measuring placement

In this study, we addressed two different placement options for students with ESNs: (a) inclusive schooling was defined by the percentage of students who spend 80% of the school day in the general education classroom and (b) exclusion was defined by those students who either attend a special school or are educated in a general education classroom less than 40% of the school day. We chose not to use the 40-79% of the day category in this study, as we agree with McLeskey, Landers, Williamson, and Hoppey (2012) that it would be nearly impossible to determine levels of access to general education for the reporting category of 79-40%, since the range is so varied between relatively nonrestrictive environments (79%) to relatively restrictive ones (40%). While this method may not be the best way to measure the constructs of inclusion and exclusion, the data available from the state make this the best available district-level measure of placement.
Variables

Variables used in this study include (with the construct in parentheses): (a) percentage of student with EBD in the following placements: less than 40% of the day in general education and separate setting and 80% or more of the day in general education settings (placement); (b) percentage of students receiving free or reduced price lunch (district socioeconomic status); (c) number of students in the district (district size); (d) district per pupil expenditure (district expenditure); and (e) percentage of Black, White, and Hispanic students with disabilities (race; see Table 1).

Analysis

Research Question 1 was: Is there significant variance across California school districts in the degree to which they include and exclude students in similar disability categories? To address Research Question 1, we present descriptive statistics and descriptive GIS mapping. Research Question 2 was: What schools districts factors are associated with placement in general education or separate settings of students with ESNs across school districts? To address Research Question 2, we present Pearson correlations between critical variables and linear regression analyses used to assess the relationship between common systemic variables and inclusion and exclusion of students with ESNs across California school districts.

Results

In this study, we examined the outcome variables, which included the percentage of SWD in general education at 80% or more of the day and the percentage of SWD in general education less than 40% of the school day and in a separate school or setting. The variables analyzed were race/ethnicity, size of district, and socioeconomic status. Specifically, these variables included: (a) less than 40% of the day in general education and separate setting and 80% or more of the day in general education settings (placement); (b) percentage of students receiving free or reduced price lunch (district socioeconomic status); (c) number of students in the district (district size); (d) district per pupil expenditure (district expenditure); and (e) percentage of Black, White, and Hispanic students with disabilities (race). An overview of the variables can be found in Table 1.

Descriptive Analysis and GIS Mapping

The descriptive analysis suggests a wide range in placement in regular classes and in self-contained or separate settings. The percentage of students with ESNs educated in general education classrooms 80% or more of the day ranged from 0-100 with a mean of 30% and mode of 24%. The percentage of students with ESNs educated 40% or less of the day in general education or in a separate setting ranged from 0-100, with a mean of 42% and median of 46%.

While not formally used in our statistical analysis, the GIS mapping technique provides visual validation to the statistical data presented (see Figures 1 and 2). Each map set represents all 938 school districts in the study. Map sets are needed since school districts vary in their configuration. For example, some districts are elementary only and some are high school and middle school only. Yet, other districts are “unified” or “union” districts, typically including TK-12 student populations. As such, they cannot be reported in a single map. Instead, for each reporting category, we present a set of two maps, one for elementary and unified and another for secondary and unified. This leads to an overlap of the unified school districts appearing on both maps. Viewing them side by side allows for a more complete picture. This overlap only exists in the visual mapping part of this study and has no effect on the statistical analysis. The maps suggest a great deal of variability across districts in California, with districts including high percentages of students with ESNs located geographically adjacent to districts including low percentages of students with ESNs. Similarly, districts with high percentages of students with ESNs in self-contained or separate settings are located geographically adjacent to districts with lower percentages of students with ESNs in self-contained or separate settings.

Table 1. Description of School District Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M</th>
<th>Mdn</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total percentage ESN 80%+ of the day in general education</td>
<td>843</td>
<td>28</td>
<td>26</td>
<td>22</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Total percentage ESN included less than 40% of the day or in a separate school</td>
<td>850</td>
<td>50</td>
<td>54</td>
<td>24</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Total SWD enrolled</td>
<td>838</td>
<td>878</td>
<td>288</td>
<td>3220</td>
<td>11</td>
<td>86005</td>
</tr>
<tr>
<td>Current expenditure per pupil</td>
<td>920</td>
<td>12575</td>
<td>11375</td>
<td>4556</td>
<td>7372</td>
<td>48156</td>
</tr>
<tr>
<td>Percentage eligible free or reduced-price meals</td>
<td>919</td>
<td>56</td>
<td>58</td>
<td>24</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Percentage Black SWD in the district</td>
<td>606</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>Percentage Hispanic SWD in the district</td>
<td>736</td>
<td>50</td>
<td>49</td>
<td>27</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Percentage White SWD in the district</td>
<td>738</td>
<td>38</td>
<td>37</td>
<td>24</td>
<td>0</td>
<td>97</td>
</tr>
</tbody>
</table>

Note. n size varies slightly depending on available data for each variable.
Pearson Correlation Analysis

Results of the Pearson correlation analysis showed a number of associations between variables. Most notably, we found the percentage of students with ESNs educated in regular classes 80% or more of the day was positively correlated with the percentage of White SWD (.364, p < .01) and total per pupil expenditure (.186, p < .01) and was negatively correlated with total enrollment of SWD (-.095, p < .01) and percentage of Hispanic (-.140, p < .01) and Black (-.202, p < .01) SWD. In relation to students with ESNs educated primarily outside the general education classroom, results demonstrated a positive correlation with the percentage of Black (.314, p < .01) and Hispanic (.287, p < .01) students with disabilities, as well as total enrollment of SWD (.144, p < .01), and a negative correlation with the percentage of White SWD (.437, p < .01) and total per pupil expenditure (-.324, p < .01).

Following the correlation analysis, we conducted a regression analysis to examine the collective significant effect of the predictor variables of race, district size, percentage of students qualifying for free and reduced price lunch, and expenditure as a predictor of inclusion and exclusion, and to parcel out the individual relationship between the predictor variables and the outcome variable (percentage of students with ESNs included in regular classes for a primary portion of the day or educated in a separate setting).

Linear Regression Analyses

Results of the multiple linear regression for students with ESNs who spend 80% or more of the day in a general education setting indicated there was a collective significant effect between the independent variables and the outcome variable, $F_{(6,396)} = 12.73, p < .001, R^2 = .176$. The individual predictors were examined further and indicated the percentage of Black SWD ($\beta = -.170, p < .01$), per pupil expenditure ($\beta = .269, p < .001$), and percentage of students receiving free or reduced-priced meals ($\beta = -.107, p < .001$) were significant predictors in the model (see Table 2).

Results of the multiple linear regression for students with ESNs educated less than 40% of the day in general education or in a completely separate setting indicated there was a collective significant effect between the predictor variables and outcome variable, $F_{(6,396)} = 25.8, p < .001, R^2 = .282$. The individual predictors were examined further and indicated the percentage of Black SWD ($\beta = .225, p < .001$) and per pupil expenditure ($\beta = -.286, p < .001$) were significant predictors in the model (see Table 2).

Discussion

Results of this analysis suggest significant variability in placement of students with ESNs across districts and in relationships associated with both race and placement and expenditure and race. These results provide some insight into placement practices and the interpretation of current policy related to placement of students with ESNs. These results must be interpreted carefully and considered within the entire context of special education practice, policy, and funding in California. Generally, the results point to the need to address policy and practice in relation to interpretation of the LRE principle, particularly focusing on issues of expenditure and race. Furthermore, limitations of the study, such as the unit of analysis being at the district level, indicate the need for further research into the interpretation and implementation of policy at the school, classroom, and stakeholder levels.

Addressing Disparate Placement Practices Through Policy Guidance

Descriptive and GIS mapping analysis demonstrate variability in placement for students with ESNs. The maps suggest districts that are geographically near each other seem to have disparate practices in placement, with some districts including disparate placement practices.

Table 2. Summary of Regression Analyses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 (80%+ in regular class)</th>
<th>Model 2 (40% or less in regular class or separate setting)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B(SE)</td>
<td>B(SE)</td>
</tr>
<tr>
<td>Total enrollment</td>
<td>3.19(0)</td>
<td>4.2(0)</td>
</tr>
<tr>
<td>% Black SWD</td>
<td>-314(10)</td>
<td>.54(13)</td>
</tr>
<tr>
<td>% White SWD</td>
<td>-170**</td>
<td>-2.25**</td>
</tr>
<tr>
<td>% Hispanic SWD</td>
<td>.055(07)</td>
<td>.082</td>
</tr>
<tr>
<td>Per pupil expenditure</td>
<td>.269***</td>
<td>-.174(09)</td>
</tr>
<tr>
<td>% students eligible for free or reduced-price lunch</td>
<td>-.061(026)</td>
<td>.056(03)</td>
</tr>
<tr>
<td>R² (Adjusted)</td>
<td>.174(163)</td>
<td>.282(271)</td>
</tr>
<tr>
<td>F(df, df)</td>
<td>12.73(6,396)</td>
<td>25.8(6,396)</td>
</tr>
</tbody>
</table>

Note: *p < .05, **p < .01, ***p < .001.
ing higher percentages of SWD and other neighboring districts including very few to no students with ESNs in general education settings. In addition, a descriptive analysis controls for low rates of inclusion in general education for students with ESNs across the state. Results suggest the need to address placement guidelines and regulations and the need to provide additional resources, such as personnel and professional development, to support the inclusion of students with ESNs in general education classrooms (Ryndak, Reardon, Benner, & Ward, 2007). Furthermore, international organizations and those that provide oversight may use this as a cautionary tale associated with application of policies associated with placement and access to regular classes.

To address placement practices, policymakers and district and school site administrators may want to include clearer training and policy guidance on decision making associated with LRE. Recently, researchers have suggested school-level administrators are often asked to interpret the LRE in practice but do not demonstrate a clear understanding or application of such a principle (O’Laughlin & Lindle, 2015). Furthermore, White, Cosier, and Taub (2018) found many states provide no additional guidance or elaboration on federal LRE regulations, leaving them open for wide interpretation. Similar research in various parts of the globe suggest administrators and those who support inclusive practices often require additional training and knowledge development (Nguluma, Bayrakci, & Titrek, 2017; Valeo, 2008). If administrators are not clear on the guidelines for decision making around LRE, and if states are not providing any additional elaboration or guidance on the implementation of the principle, then it is not a surprise placement practices differ greatly from one district to the next.

Considerations for Race and Expenditure

In this analysis, placement was significantly related to race and expenditure in some way. Specifically, when the percentage of Black SWD increased, inclusion decreased and exclusion increased. The converse was evident as the percentage of White students in the district increased—inclusion increased and exclusion decreased. While the percentage of Hispanic students and increases in exclusion were evident in the correlation analysis, it did not result in a statistically significant relationship in the regression analysis. These results must be interpreted cautiously as they cannot be tied to student-level phenomena. For example, we cannot state that Black students in particular districts are more likely than other students to be included or excluded, only that we see trends in the percentage of Black SWD and inclusion or exclusion in the district. That said, the results clearly suggest the need to further investigate issues of race placement in the increasingly diverse state of California. Targeted research at the district and school levels may provide the necessary insight and support in the interpretation of these results.

As with race, expenditure shared a strong relationship with inclusion and exclusion, suggesting that, as expenditure increases, so does inclusion, and similarly, as expenditure decreases, exclusion increases. It is essential to avoid the assumption that these results suggest inclusion is “more expensive,” as the data for expenditure are not disaggregated to show exactly how much of that money is spent supporting SWD. However, it does suggest better resourced school districts may provide increased opportunities for access to regular classes with SWD. Results on expenditure indicate a need to address the necessary funding for personnel, professional development, and additional resources that support a shift toward inclusive practices. Although inclusive education may not necessarily be more expensive, districts and schools will need additional funding to support the transition from separate settings to inclusive classrooms, or to support pilot inclusion models that can be replicated across the district. Thus, there is a clear need for policy that addresses increased funding for quality inclusive practices.

Directions for Future Research

The limitations in this study highlight the need for additional and multiple forms of research on issues related to placement of SWD. Many of the limitations are associated with data availability and accessibility. First, although the data used in this study are technically publicly available, there is a cost to obtain the data. The data do not all come from the same sources within the California Department of Education; thus, the data must be merged and recoded to conduct the analysis, which comes at significant time and labor costs. This creates barriers to including a number of important variables and/or years of data. We recognize the need to include additional variables and additional years of data to develop a more thorough and robust analysis and hope to continue to develop this dataset.

The second issue with data accessibility is that such publicly available data are only available at the district level. The results of this study point to the need to research issues associated with placement at the school, classroom, and teacher/student levels to obtain a clearer understanding of how stakeholders are implementing and interpreting the LRE principle. The results of this study demonstrate the need for continued quantitative and qualitative research at the school, classroom, and student teacher levels.

Conclusion

Access to regular classes for all SWD, particularly those with ESNs who are often educated in placements outside the general education setting, is not only a pressing global issue (Ainscow & César, 2006), but an issue in California and across the United States. To address inequities in access, we must understand the factors that contribute to these inequalities and then systematically address them. This requires a multipronged approach that addresses factors at the classroom, school, district, and state level. Furthermore, specific policy guidance and support is essential. California has the opportunity to act as a leader in working toward increased access for SWD, focusing on the students who traditionally lack access, such as students with autism, intellectual disability, and multiple disabilities.

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