Being in the Right Place at the Right Time: Educational Placement of Students with Intellectual Disability by State and Year

Abstract

Despite the longstanding federal mandate to place students with disabilities in general education classrooms to the maximum extent appropriate, most students with intellectual disability continue to spend most of their time in separate classrooms and schools. In this study, we describe longitudinal educational placement patterns in six states that represent the wide span of educational placement (i.e., Vermont, Kentucky, Kansas, Massachusetts, Illinois, and Montana). Surprisingly, some states are trending toward more restrictive placements, and the gap between the most and least inclusive states is continuing to widen over time. We offer constructive suggestions for appropriately applying the principle of Least Restrictive Environment (LRE) so that placement decisions are driven by student needs, and not where students live.

Keywords: inclusion, educational placement, intellectual disability, Least Restrictive Environment

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Students who receive special education services under the category of intellectual disability are educated in a continuum of educational placements that range from general education classrooms with various types and levels of supports, to separate special education classrooms and schools that only serve students with disabilities, to placements outside of schools (e.g., home, hospital, and correctional facilities; U.S. Department of Education, 2017). The degree to which students access the general education classroom has a profound effect on a student's opportunities to make progress on the general education curriculum (Ryndak, Ward, Alper, Storch, & Montgomery, 2010), make friends outside of their peers who also have disabilities (Carter et al., 2016), and become a valued member of the school community (Jackson, Ryndak, & Wehmeyer, 2010).

Educational teams made up of parents, special educators, general educators, administrators, psychologists, and sometimes the student are charged with making decisions about the type(s) of educational placement that are most appropriate for an individual student (IDEIA, sec. 1414). Federal law directs these teams to make individualized decisions regarding educational placement with a preference for placing students in general education classrooms to the maximum extent appropriate. Specifically, the Individuals with Disabilities Education Improvement Act (IDEIA; 2004) mandates that students receive a "free appropriate public education," in the "least restrictive environment" (LRE; IDEIA, sec. 1411). The law requires that students only be placed in more restrictive placements if the student's disability severity or other externalizing factors make education in the regular education classroom, even with the support of aids or other services, unsatisfactory (IDEIA, sec. 1412). In other words, the default placement

for all students—including students with intellectual disability—should be the general education classroom with appropriate supports (Giangreco, Dymond, & Shogren, 2016). Moving a student out of this default placement requires a compelling justification based on the student's individual needs. This principle of LRE has been included in federal law for over 40 years (Education for all Handicapped Children Act, 1975).

Given that LRE has been part of federal law for over 40 years, one might expect that students with intellectual disability have been increasingly placed in general education classrooms over time. In contrast, analysis of national placement rates shows that students with intellectual disability have always been—and continue to be—educated primarily in separate classrooms or schools (Brock, 2018). Specifically, between 55.3% and 73.1% of students have spent most or all of the day in self-contained classrooms or schools for every year since special education was mandated in public schools in 1975 (Education for all Handicapped Children Act). While general education placement increased modestly in the 1990s, rates have plateaued in recent years (Brock, 2018). This stands in sharp contrast to other disability groups that have made rapid progress toward increased placement in general education classrooms (e.g., students with specific learning disabilities or emotional disturbance; McLeskey, Landers, Williamson, & Hoppey, 2012).

Furthermore, there is strong evidence that placement decisions may be heavily influenced by where students live instead of a student's educational needs (Brock & Schaefer, 2015). For example, in 2016 students with intellectual disability in Vermont were nearly 12 times more likely to be placed in a general education classroom for most (i.e., 80% or more) of the school day compared to students in Montana (U.S. Department of Education, 2017). Differences between neighboring states are perhaps even more striking. Examples include Indiana compared

to Illinois (7 times more likely), North Carolina compared to South Carolina (2 times more likely), Kentucky compared to Tennessee (nearly 4 times more likely), and Vermont compared to New York (7 times more likely to be placed in general education classrooms for most of the day; U.S. Department of Education, 2017). Researchers have demonstrated similar state-by-state disparities for students with other developmental disabilities such as autism and multiple disabilities (Brock & Schaefer, 2015; Kurth, 2015). Brock and Schaefer (2015) also showed that these disparities are present between neighboring school districts within a state.

Although researchers have documented current disparities in educational placement, it is not clear how these disparities have emerged over time. Without longitudinal analysis, it is unclear whether state-by-state disparities have always existed or have emerged more recently. For example, has Vermont always been far more inclusive than Montana, or have the two states trended in opposite directions over time? Furthermore, it is unclear if state patterns of educational placement are similar to a federal pattern of slow progress toward less restrictive placements (Brock, 2018), or if some individual states have demonstrated more rapid progress while others have remained stagnant or trended toward more restrictive placements. Without understanding these satte-level longitudinal patterns, it is difficult to make strong recommendations for how states can move toward less restrictive placement in the future.

In the current study, we address these gaps in the literature by studying longitudinal patterns of educational placement for students with intellectual disability across six strategically selected states. We analyzed six states as a first step toward understanding the degree to which trajectories of educational placement might be different across states. Analyzing six states allowed us to (a) sample more than one state with high, low, and medium rates of educational placement in general education settings; and (b) sufficiently address our research questions

regarding variability in trajectories across states. Our goal was not to examine data that is representative of all states, but simply to examine whether there is variability in trajectories across states. To aid in our interpretation of placement patterns, we also describe three contextual variables that have been connected with educational placement in the literature. First, we consider the balance of students served in urban and rural schools. Brock and Schaefer (2015) demonstrated that in the state of Ohio, schools in rural districts were more likely to place students in general education classrooms than schools in urban districts. They suggested that this might be explained by differences in infrastructure, or a "build it and they will come" mentality (M. Giangreco, personal communication, April 22, 2019). In other words, once urban districts invest in centralized resources such as separate classrooms or schools, they will continue to place students in these settings each year. In contrast, rural school systems are less likely to invest in centralized resources in the first place. Second, we consider how differences in state funding formulas might influence placement rates. Researchers have suggested that state funding formulas could possibly incentivize more or less restrictive placement, although Kurth (2015) did not identify any instances in which a funding formula explicitly favored a more or less restrictive placement for students with ASD. Third, we consider the role of diagnostic rates for intellectual disability and diagnostic substitution. Specifically, researchers have demonstrated that some schools have shifted to serving fewer students under a primary disability category of intellectual disability, and more students under a primary disability category of autism (Shattuck, 2006). If diagnostic substitution is occurring at differential rates across states, this might be a factor that impacts differential rates of educational placement (Brock, 2018). With these contextual variables in mind, we addressed the following research questions:

1. What are the longitudinal trends of educational placement of students with intellectual disability for six selected states (i.e., Vermont, Kentucky, Kansas, Massachusetts, Illinois, and Montana)?
2. How do state trends compare to the national trend?
3. To what degree do the three variables (i.e., the balance or urban and rural schools, state funding patterns, and the proportion of students who are identified with intellectual disability) provide context for these trends?

Method

Selection of States

We addressed the research questions by focusing on six different states that have high, medium, or low current placements in general education classrooms. To select these six states, we rank ordered all 50 states and the District of Columbia from most-to-least based on the percentage of students with intellectual disability who were educated 80% or more of the day in general education classrooms in 2016 (U.S. Department of Education, 2017). We excluded Iowa, which does not assign students to disability categories (e.g., intellectual disability) in the same way as other states (Iowa Department of Education, 2019). We then identified the two states with the highest (i.e., Vermont, Kentucky), median (i.e., Kansas, Massachusetts), and lowest (i.e., Montana, Illinois) percentage of students with intellectual disability placed in general education at least 80% of the school day.

Data and Analysis

For each of the six states, we analyzed educational placement data for students with intellectual disability from 1990-2016, and explored three different variables that might explain differences in patterns of educational placement (i.e., the balance of students who attended

urban, rural, and suburban schools; state formulas for funding special education programs; and the proportion of students who were identified with intellectual disability).

Educational Placement. We obtained educational placement data for students with intellectual disability ages 6-21 from federally reported data associated with the IDEIA, (sec. 601) that was available on public websites. Data for 2005-2016 were obtained from the Office of Special Education Programs (OSEP) Annual Report to Congress website (U.S. Department of Education, 2018). Data for 1990-2004 were obtained from the IDEA Data Center (U.S. Department of Education, 2017). We restricted our analysis from 1990-2016 because OSEP guidance advises that data collected before and after 1990 are not comparable due to the change in reporting standards from time spent receiving special education, to time spent outside of the regular classroom. As a result, the Data Accountability Center made the following recommendation: “Westat queried state special education data managers and found that limited comparisons of these data can be made over time. Comparisons of data prior to 1989-90 with data after that data should be limited only to students served outside of regular school buildings" (U.S. Department of Education, 2012).

There were three different categories of educational placement for students served in regular public schools. These categories included students who spend 80% or more of the day spent in the general education classroom, 40-79% of the day in the general education classroom, and less than 40% of the day in the general education classroom. We collapsed five categories for placements outside of regular public schools (i.e., correctional facilities, homebound/hospital, service provider location, parental placement in private schools, and separate school) into one category: separate school or other placement. We created an area graph for each state to visually

display the proportion of students in each of the four placement categories for each year between 1990 and 2016.

Urbanicity. We obtained data on the balance of students who attended urban, rural, and suburban schools in each state. This involved merging two datasets from the National Center for Educational Statistics website for the 2015 schoolyear (National Center for Education Statistics, 2018). The first dataset included urbanicity locale codes for each school, and the second included student enrollment by school. We merged the two data sets by matching by school identification codes, and then we sorted the data by state and school. The NCES assigns twelve urbanicity classifications, which we collapsed into four. The four collapsed codes included *urban* (collapsed from city large, city midsize, and city small), *suburban* (collapsed from suburban large, suburban midsize, and suburban small), *town* (collapsed from town fringe, town distant, and town remote) and *rural* (collapsed from rural fringe, rural distant, and rural remote). We calculated the relative proportion of students in each state who attended schools in each of the four urbanicity codes.

Funding Formulas. We reviewed state funding formulas for special education by reviewing and coding two types of sources. First, we reviewed summaries of state funding formulas from a national report (Education Commission of the States, 2019). Second, we reviewed the laws and codes that were cited in the report for each state (Legislative Research Commission, 2011; KRS § 157.200; 105 ILCS 5/18-8.15; M.G.L.A. 71B § 5A; MCA 20-9-321; 16 V.S.A. § 2961). We coded each state as to (a) whether formulas included language that would explicitly incentivize any given educational placement; (b) whether funding was allocated based on the total count of all students at a school, or the count of students who were identified with disabilities; (c) whether states used resource-based funding (i.e., allocation of funds to maintain staff-student ratios), or monetary allocation (i.e., assignment of funds that could be used

at the school's discretion); (d) whether states allocated additional funds specifically for students with the most extensive support needs by weighting these students in the funding formula or allowing states to submit for reimbursement when they spent a large sum of money to serve an individual student.

We chose this coding framework after carefully reviewing state funding formulas for each the six states. First, we looked for explicit language related to educational placement. Historically, some states have explicitly incentivized placing students in more restrictive settings by providing increased funding for these placements. For example, Texas provides nearly three times more funding for students served in resource rooms or self-contained classrooms compared to students served in general education classrooms (Education Commission of the States, 2019; Tex. Educ. Code Ann. § 42.151). Second, we identified other differences in funding mechanisms that might possibly be related to placement decisions. Specifically, we focused on mechanisms that might incentivize or disincentivize schools to identify more students with intellectual disability, because incentivizing higher identification rates could possibly lead to overidentifying students with milder support needs who receive their education primarily in general education classrooms. For example, schools might be incentivized to identify more students with intellectual disability if a state (a) allocated funds based on the count of students with disabilities at the school, and (b) weighted funding in a way that allocated increased funding for students intellectual disability relative to other disability groups.

Proportion of Students Identified with Intellectual Disability. We obtained longitudinal data on the proportion of students identified with intellectual disability in each state to examine its relationship with statewide placement patterns. This involved merging two data sets from OSEP annual reports (U.S. Department of Education, 2018) and NCES enrollment

reports (National Center for Educational Statistics, 2018). The OSEP annual report included the number of students served under a primary educational label of intellectual disability in each state by year. The NCES reports included the total number of students (with and without disabilities) in each state by year. We divided the number of students with intellectual disability by the total number of students for each year in each state. For each state, we graphed the proportion of students identified with intellectual disability by year (1990-2016).

Results

First, we present descriptive findings by state, with states ordered from highest to lowest current placement of students with intellectual disability in general education classrooms. We begin with the highest ranked states (i.e., Vermont and Kentucky), then the median ranked states (i.e., Kansas and Massachusetts), then the lowest ranked states (i.e., Montana and Illinois), and finally the national data for comparison. For each of the six states we discuss the trends in the placement data (Figure 1), proportion of students in each state who were served in urban, suburban, and rural schools (Figure 2), the proportion of students receiving special education identified with intellectual disability (Figure 3), and special education funding formulas (Table 1). Then, we compare trends across states.

Vermont

Longitudinal patterns of placement. Vermont, the state with the highest percentage of students with intellectual disability currently placed in general education classrooms 80% or more of the day, had an unusual pattern of placement over time (see Figure 1). The percentage of students placed in general education classrooms 80% or more of the day began at 54.06% in 1990. This percentage slowly increased through the 1990s, peaking at 78% in 1995. With the exception of one outlying year (2003), the percentage steadily declined, reaching a nadir of

31.6% in 2008. Since 2008, the percentage has steadily increased through 2016, which was 47.1%. The percentage of students in separate schools or other placements has been variable over time, ranging between 0.9-10.8% without any clear trend.

Contextual variables. The majority of Vermont's students were served in rural schools (55.6%), while the smallest proportion of students were served in urban schools (7.78%). Compared to the other states, Vermont had the highest proportion of rural schools and the lowest proportion of urban schools. The proportion of students served under an intellectual disability label in Vermont showed a gradually decreasing trend starting at 1.53% in 1990, and ending at 0.77% in 2016. Vermont's special education funding formula is based on a total count of all students, and uses resource allocation with high cost student reimbursement. The state code does not include any provision to allocate funding based on educational placement.

Kentucky

Longitudinal patterns of placement. In Kentucky, there has been a slow and steady increase in the percentage of students who spend 80% of more of the day in a general education classroom. This percentage was only 6.2% in 1990, but steadily increased to 43.8% in 2016. The percentage of students in separate school or other placements has been low across all years (range = 0.61%-2.93%).

Contextual variables. The majority of students in Kentucky are in rural districts (36.2%), with the fewest number of students served in urban districts (16.1%). Compared to other states, Kentucky had the second highest proportion of students in rural schools, and the second lowest proportion of students in urban schools. Kentucky had the highest proportion of students served with an intellectual disability label, with the exception of 1990 and 1991. The trend showed a slow gradual decrease over time starting at 2.8% in 1990, and ending at 1.9% in

2016. The special education funding in Kentucky is based on student with disability counts, and weighted based on specific disability categories. Schools receive more money for students with moderate and low incidence disabilities than students with high incidence disabilities. The state code does not include any provision to allocate funding based on educational placement.

Kansas

Longitudinal patterns of placement. In Kansas, there was a modest increasing trend between 1995-1999 for the percentage of students in the general education classroom 80% or more of the day (i.e., 7.3% to 21.5%). These temporary gains soon decreased to a lower level and a stable trend, which has shown little variability from 2004-2016 (range = 11.3-15.5%). Separate school and other placements have been mostly level since 1990, with one outlying point in 1995 and some variability between 1991 and 2003 (range = 1.2-11.1%). The trend from 2004-2016 is more stable (range = 4.3-5.6%).

Contextual variables. The majority of students in Kansas are in urban districts (28.2%), with the fewest number of students served in suburban districts (17.4%). The proportion of students served under an intellectual disability label in Kansas started lower in 1990 at 0.85% before gradually climbing to 1.3% in 1995, then gradually decreasing over time to 0.7% in 2016. Kansas uses counts of students with disabilities with uniform weighting of disability category, and high cost student reimbursement. The state code does not include any provision to allocate funding based on educational placement.

Massachusetts

Longitudinal patterns of placement. Massachusetts had a steep decline in the placement of students in general education classrooms 80% or more between 1990 and 1991 (i.e., 60.8% to 20.5%). The placement rate is then stable from 1992-1998, before falling in 1999

to a low of 6.4% before gradually climbing to a plateau in 2004. Separate schools and other placements in Massachusetts initially increased 1993-1998 (i.e., 5.9% to 20.7%), decreased to a low of 2.42% in 2004, and then slowly increased to 9.7% in 2016.

Contextual variables. The majority of students in Massachusetts are in suburban districts (71.7 %), with the fewest number of students served in districts classified as towns (1.4%). Compared to the other states, Massachusetts has the highest proportion of districts in suburban settings, and the fewest in towns. The proportion of students served under an intellectual disability label in Massachusetts started at the highest point of any of the six states, with two outliers in 1990 and 1991 that are higher than the other data points (i.e., 2.7% higher). We spoke with a representative from the Massachusetts Department of Education who explained that this sudden decrease likely resulted from a state-level change in categorization of students ages 3-9 from intellectual disability to developmental delay (M. Deninger, personal communication, December 6, 2018). In 1992 the proportion decreases to 1.6% then gradually decreases to 0.9% in 2016. Massachusetts uses total counts of all students with resource allocation, and high cost student reimbursement. The state code does not include any provision to allocate funding based on educational placement.

Montana

Longitudinal patterns of placement. Montana was the state with the lowest proportion of students placed in the general education classroom for 80% or more of the day. There is a low and decreasing trend in this placement with one outlying point in 1994. From 1995-1998 the trend in Montana decreased from 17.9% to 8.3% before increasing again to a 18% in 2003, then declining gradually to 4.1% in 2016. The percentage of students in separate schools or other

placements, other than one outlying point in 1997, was low with minimal variability (range = 0.3-1.9%).

Contextual variables. The majority of students in Montana are in rural districts (36.1%), with the fewest number of students served in suburban districts (1.9%). Compared to other states, Montana had the lowest proportion of students in suburban schools. Montana had the lowest proportion of students served under an intellectual disability label. The trend was stable over time starting at 0.7% in 1990, and remaining stable until 2010 (0.7%; range = 0.7-0.8%). In 2011, the proportion dropped to 0.39% and remained stable until 2016 (0.4%; range = 0.39-0.41%). The special education funding in Montana is based on total student counts, and uses monetary allocation. The state code does not include any provision to allocate funding based on educational placement.

Illinois

Longitudinal patterns of placement. Illinois had low rates of students in the general education classroom for 80% or more of the day. Rates were low from 1990-1997 (range = 0.3% to 2.6%). There was a slight increase to 7.3% in 1998, and then a subsequent decrease to 4.3% in 2016. The separate school or other placement percentages are consistently higher during this same time. This category begins at 22.7% in 1990, then falls to a low of 8.5% in 2003 before gradually increasing again to 16.2% in 2016.

Contextual variables. The majority of Illinois' students were served in suburban schools (48.95%), while the smallest proportion of students were served in town schools (10.3%). Compared to the other states, Illinois had the highest proportion of urban schools (30.0%). The proportion of students served under an intellectual disability label in Illinois showed a gradually decreasing trend starting at 1.3% in 1990, and ending at 0.8% in 2016. Illinois' special education

funding formula is based on a total count of all students, and uses resource allocation. The state code does not include any provision to allocate funding based on educational placement.

National Trends

National and state trends of educational placement for students with intellectual disability are displayed in Figure 1. The national placement data for this same time period had less year-to-year variability than any individual state that we analyzed. Overall, placements slowly trended toward less restrictive until 2010, and then plateaued through 2016.

Comparing state and national trends. Surprisingly, only two states showed a similar overall pattern of gradually less restrictive placements over time: Illinois and Kentucky. However, Illinois places far fewer students in less restrictive placement compared to national trends, and Kentucky places far more. All other states had more variable trends. Four states had short-term (Kansas and Vermont) or long-term (Massachusetts and Montana) trends toward *more* restrictive placements.

Comparisons Between States

Balance of students served in urban, suburban, and rural schools. When comparing the across states, only the states with the highest rank have similar patterns in the proportion of schools in urban, suburban, and rural locales. Vermont and Kentucky both have the highest number of schools in the rural locale, and the lowest in urban locales. The median ranked states have large differences between categories, while the lowest ranked states are only similar in the proportion of urban schools. Both median and the lowest ranked states have higher proportions of urban schools than the highest ranked states.

Proportion of students identified with intellectual disability. Across states, 0.4-1.9% of all students were provided special education services under a primary educational label of

intellectual disability in 2016. Kentucky identified a higher proportion (i.e., 1.9%) than the next highest state, Massachusetts (i.e., 0.9%). In general, states have tended to identify a smaller proportion of students with intellectual disability over time, although the decrease has been small (i.e., <1% for all states except Massachusetts).

Funding formulas. The type of funding formula used did not seem to be associated with educational placement rates. For example Vermont and Illinois both used resources allocation based on total count of all students, but were ranked as the highest and lowest groups respectively when comparing the 80% category. No two states had similar mechanisms when compared to the state closest to the other state with a similar rank.

Discussion

Despite a federal mandate for students with intellectual disability to be educated in their Least Restrictive Environment (LRE), there are inconsistencies in the rate at which different states place these students in general education classrooms (Brock & Schaefer, 2015; Kurth, 2015). Although current differences between states have been well documented, it is unclear how different states have progressed over time toward placing students in their LRE. This study compared longitudinal placement rates across six purposely selected states. In addition, we explored contextual factors—the relative proportions of students served in urban and rural schools, state funding formulas for special education, and the proportion of students identified with intellectual disability. We found that trajectories of educational placement were very different across states, the gap between the most and least inclusive states is widening over time, and that the national trend did not match any individual state. These findings extend the literature in a number of key ways. We use the contextual variables (i.e., the balance or urban and rural

schools, state funding formulas, and proportions of students identified with intellectual disability) to help us situate our findings in the broader literature.

First, state patterns of educational placement over time were remarkably different from one another. Some states are currently trending toward more restrictive placements (i.e., Massachusetts and Montana), others are trending toward less restrictive placements (i.e., Vermont and Kentucky), and others have a relatively flat trend in recent years (i.e., Illinois and Kansas). However, even states that are currently trending similarly took different paths over time. Kentucky has consistently and gradually increased the proportion of general education placements over time, while Vermont's trajectory is characterized by sharp increases and decreases. These data corroborate previous findings from cross-sectional studies that state placement rates vary widely (e.g., Brock, 2018), and extend the literature by showing that the gap between the most and least restrictive states is continuing to widen over time.

These differences suggest that states are not applying LRE in the same way, nor are they moving any closer to uniform application of LRE. We found it particularly striking that states with the most pronounced differences in educational placement (e.g., Vermont and Montana) are continuing to trend in opposite directions. These trends are troubling, because federal law mandates that students with intellectual disability should access general education classrooms to the maximum extent appropriate based on their individual needs—regardless of where they live or when they lived there.

Second, no state pattern closely mirrored national trends. National placement rates have either gradually increased or remained flat, with little year-to-year variability (Brock, 2018). In contrast, four of the six states in our analysis (i.e., Vermont, Massachusetts, Montana, and Kansas) had sharp downward trends at some point in their trajectory, and all state-level

trajectories had more year-to-year variability when compared to national data. It is not surprising that state-level trends would be more variability than a national average. However, we were very surprised that some states have trended toward more restrictive placements—in the opposite direction of the national average. Prior to this study, no one has documented cases in which states have moved toward less restrictive placements over time. Instead the emphasis has been slow, gradual movement toward less restrictive placement in the national average (e.g., Brock, 2018). This incongruence between national and state trends further corroborates the lack of uniform application of LRE when making educational placement decisions.

Third, contextual variables allow us to further situate our findings in the broader literature. Brock and Schaefer (2015) found that urban school districts tend to place students in more restrictive settings, while rural districts tend to place students in less restrictive settings. In this study, the two states with the highest proportion of rural schools (i.e., Kentucky and Vermont) were also the two states with the least restrictive placements, and are continuing to trend toward less restrictive. This corroborates Brock and Schaefer's explanation that rural areas that do not invest in centralized resources might be more likely to treat the general education classroom as the default placement for students with intellectual disability.

Consistent with Kurth (2015), we found no evidence of explicit language in state funding formulas that would favor a given educational placement. Interestingly, the two states with the most restrictive placements—Montana and Illinois—were also the only two state that did not allocate funding based on counts of students with disabilities or allow schools to seek reimbursement when costs for educating individual students are high. Our descriptive analysis does not allow us to discern whether there is some sort of causal relationship (e.g., states that allocate funding this way tend to be more restrictive), or if both funding mechanisms and

restrictive placements might both be symptoms of a larger problem—limited advocacy for students with intellectual disability in these states.

Consistent with Shattuck (2006), we found that the proportion of all students served under a primary educational label of intellectual disability has been decreasing over time. This decrease has been similarly gradual across all states, and therefore unlikely to be related to differences in placement trends. However, differences in the level of identification rates across states were striking, and raise the concern that state-level data may not allow us to make apples-to-apples comparisons when studying students with a primary educational label of intellectual disability across states. For example, it would seem that Kentucky—a state with an identification rate more than double any other state—might be assigning educational labels in a way that is qualitatively different than other states.

Implications for Practice

Given the striking differences in how LRE is applied—or not applied—across the states in this analysis, we offer constructive suggestions for how states could make placement decisions in a manner that is more consistent with the law. Specifically, we recommend that educational teams which make placement decisions treat the general education classroom as the default placement, and that students are only removed from this setting when a compelling justification is documented. We recommend that teams document the specific educational need that will be addressed in a separate setting, the amount of time required in the separate setting to address the need, and a performance criterion for when it is no longer necessary to meet the need in a separate setting. For example, a self-contained setting might be the most conducive context to delivering highly individualized and intensive instruction on a functional skill (e.g., brushing teeth), or to initially implement a function-based behavior intervention plan for a student with

severe and dangerous challenging behavior (Kauffmann, 2005). However, these reasons only justify removing the student from the general education classroom for a small amount of time (e.g., 10 minutes a day to focus intensively on tooth brushing) or until a performance criterion is met (e.g., challenging behavior has been decreased or eliminated to the extent that it is safe for the student to return to the general education classroom).

Furthermore, we recommend that teams perform regular audits to determine (a) if the students are indeed receiving the individualized and intensive instruction and support in the self-contained setting that focuses on the needs documented in the placement decision, (b) if there are periods of time in the self-contained setting in which instruction is not occurring, or instruction not focused on the educational needs documented in the placement decision, (c) if instruction in the self-contained setting is resulting in improved student performance, and (d) if it is no longer necessary to deliver intensive and individualized instruction or support in the separate setting based on the student's performance. After performing these audits, we recommend that teams re-evaluate whether time spent in the self-continued setting is well justified, or if this time should be ceded back to the default placement (i.e., the general education classroom).

Limitations and Future Directions for Research

Limitations from this study highlight opportunities for future research. First, all of our analyses were based on federally reported data. These data have limitations. For example, it is possible that the high year-to-year variability across states might stem from reporting errors, and this variability is moderated when data are averaged nationally. In addition, these data only describe where students are placed, and not the quality of these placements. In future studies, researchers might independently collect their own data that capture the quality of placements,

and include more safeguards to prevent reporting errors. Second, we reported on three contextual variables to aide in our interpretation of trends in placement. However, this analysis was descriptive, and did not involve testing relationships between variables. In the future, researchers might develop and test specific hypotheses about how different variables might impact educational placement. Third, there are a number of other contextual variables that we did not include in this study. In future studies, researchers might consider additional variables such as disability severity, racial and ethnic diversity, family socioeconomic status, and the number of charter or private schools that serve students with intellectual disability. Fourth, we examined data for only 6 states. Although these states were strategically selected to provide insight into different state profiles, it would not be appropriate to extrapolate to states that were not included int his analysis. In future studies, researchers might study additional states and gauge the degree to which patterns are consistent across states.

Conclusion

Previous studies have found that general education placement rates for students with intellectual disability are different across states. We built on these cross-sectional findings by using longitudinal analysis to demonstrate that state-level trajectories of placement are also very different, with some states trending in opposite directions toward more or less restrictive placements. These findings highlight striking differences in how states are applying—or not applying—the principle of LRE, and that they are trending further away from consistent application of LRE. It is troubling that the placement of a student with intellectual disability is so heavily influenced by where a student lives, and that differences between states are becoming even more pronounced over time. We proposed specific recommendations for how states might make placement decisions that are consistent with LRE. If all states followed the law by treating

the general education classroom as the default placement for students with intellectual disability, placement decisions would no longer be inappropriately influenced by whether students happen to live in the right place at the right time.

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Table 1.

Special Education Funding Formulas by State

State	Count of students with disabilities	Count of all students		High Cost Student Reimbursement
		Resource Allocation	Monetary Allocation	
Vermont		✓		✓
Kentucky	✓			
Kansas	✓			✓
Massachusetts			✓	✓
Montana			✓	
Illinois		✓		

Note: Count of students with disabilities = money is allocated based on the count of students with disabilities at the school. In Kansas, all students are weighted equally; in Kentucky, schools receive more money for students with moderate and low incidence disabilities. *Resource allocation* = salaries for special education are allocated based on the count of all students at the school. *Monetary allocation* = money is allocated based on the count of all students at the school. *High cost student reimbursement* = system for reimbursement when schools expend exceptionally high amounts of money on an individual student.

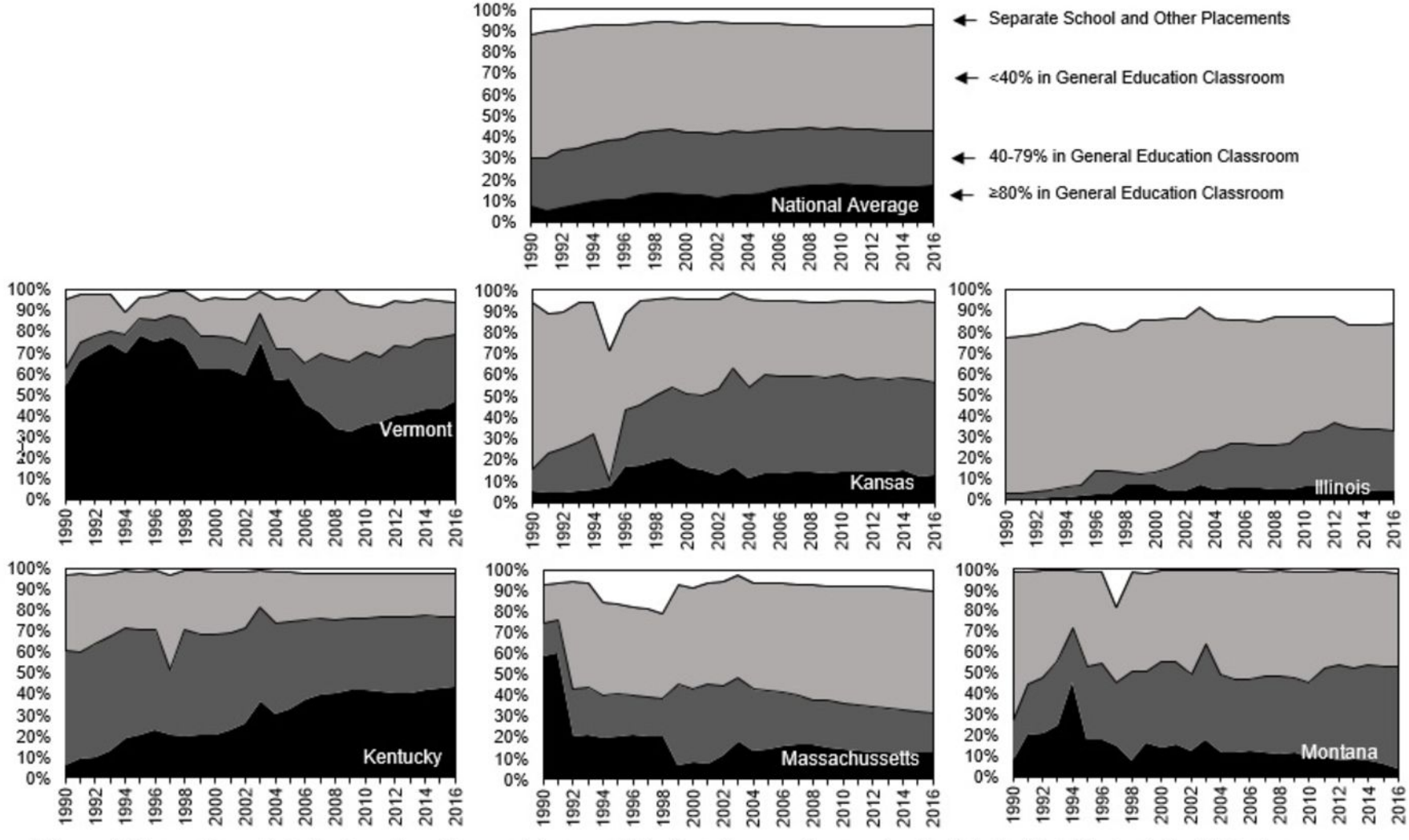

Figure 1. Proportion of students nationally receiving special education services under the label of intellectual disability by educational placement category between 1990 and 2016 nationally and in six strategically chosen states that currently have the most (Vermont and Kentucky), median (Kansas and Massachusetts), and least (Illinois and Montana) students placed in general education classrooms for ≥80% of the school day in 2016. Categories are ordered top-to-bottom from most restrictive to least restrictive placements.

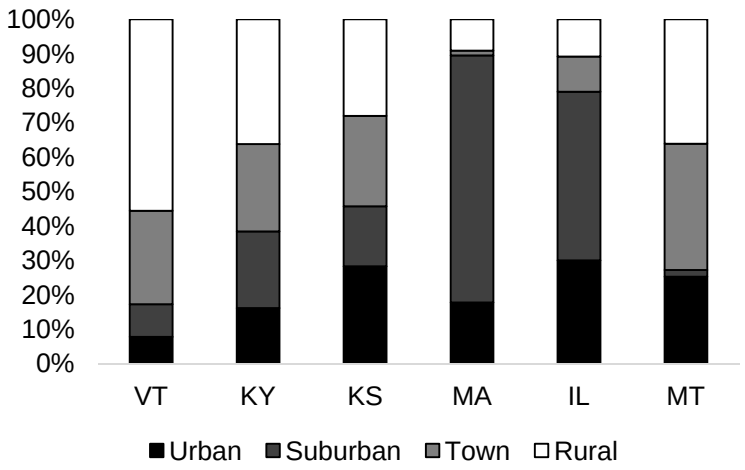

Figure 2. Proportion of Local Education Agencies (LEAs) reported in different locales by state. Categories are ordered top to bottom: rural, town, suburban, urban.

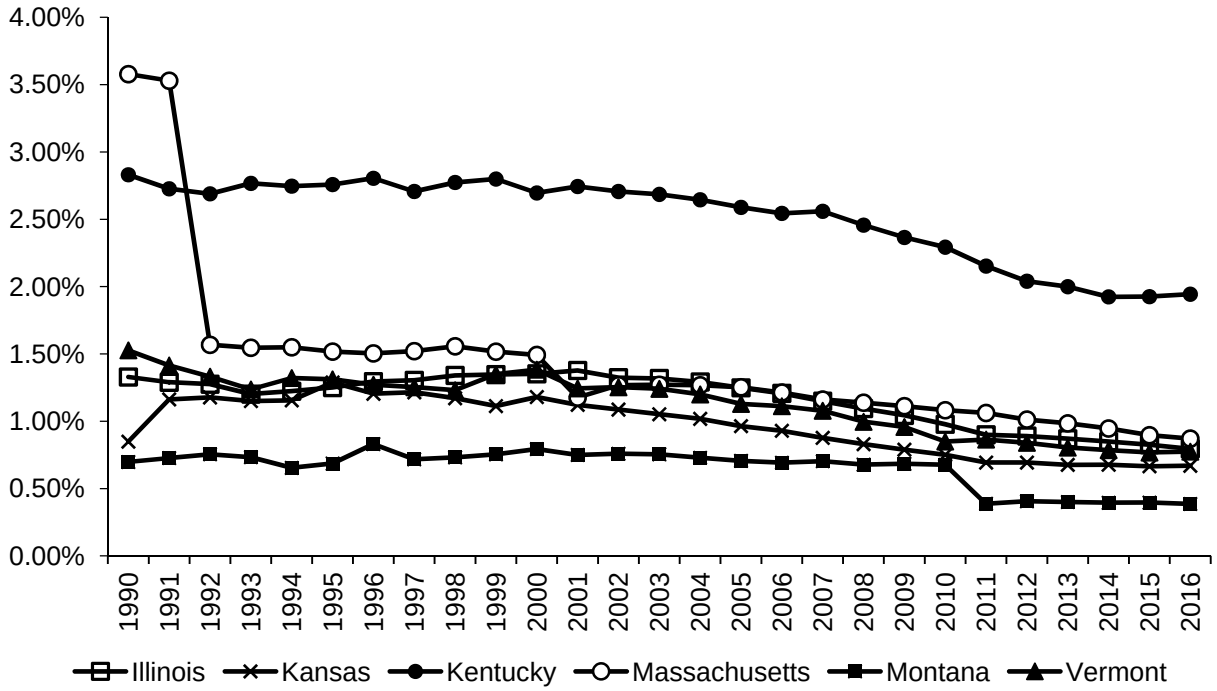

Figure 3. Proportion of all students identified with intellectual disability in Illinois, Kansas, Kentucky, Massachusetts, Montana, and Vermont between 1990 and 2016.