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HAS INCLUSION GONE TOO FAR?

WEIGHING ITS EFFECTS ON STUDENTS WITH DISABILITIES, THEIR PEERS, AND TEACHERS

THE MODEL OF SPECIAL EDUCATION known as inclusion, or mainstreaming, has become more prevalent over the past 10 years, and today, more than 60 percent of all students with disabilities (SWDs) spend 80 percent or more of their school day in regular classrooms, alongside their non-disabled peers (see Figure 1). This is not the full inclusion favored by some disability advocates, wherein all SWDs would be educated in inclusive classrooms all day; however, many supporters celebrate the increasing acceptance of differently abled students in general education as an opportunity to improve the academic and long-term trajectories of these traditionally underserved learners. In theory, inclusion provides SWDs with access to the grade-level curriculum and the same educational opportunities as their peers.

Unfortunately, research has yielded only weak evidence that inclusion confers benefits on SWDs. Studies that report better

academic and behavioral outcomes for SWDs who are taught in a general-education setting suffer from methodological flaws. Even less evidence suggests that general-education teachers are adequately prepared to meet the unique academic and behavioral needs of SWDs. Further, studies of inclusion seem to assume that SWDs are educated in a vacuum; that is, they fail to examine the experiences of non-disabled classmates.

In this article, I explore policies and existing research on inclusion to describe what we know, what we don't, and how current knowledge should inform decisions about where to educate SWDs. An underlying theme of this discussion is that inclusion influences not only SWDs but also their peers and teachers. The interplay between and among these three groups suggests areas of research that can inform future discussion about inclusion and how it can work well for all stakeholders.

by ALLISON F. GILMOUR

The Least-Restrictive Environment

Inclusion did not become the widespread practice it is today because of a robust evidence base that supports its effectiveness. Rather, it is prevalent because of federal laws that establish special rights for SWDs and their parents. The Individuals with Disabilities Education Act (IDEA), first signed into law in 1975 as the Education for all Handicapped Children Act, mandates that SWDs receive a free appropriate public education (FAPE) in the least-restrictive environment (LRE) possible. A student's FAPE and LRE are established through a team process that produces an Individualized Education Program (IEP). After a school identifies a student with a disability, it convenes an IEP team meeting. This team typically consists of the student's parents or guardians; special- and general-education teachers with knowledge of the student; school staff members who can interpret the results of evaluations; other service providers;

and, in many cases, the student. At this meeting, the team identifies annual goals for the student. These individualized goals determine what constitutes an "appropriate education" for that particular student.

Once the goals are in place, the IEP team discusses the instruction, related services, and accommodations the student requires to meet the goals. During this stage of the IEP process, the team decides *where* the student will receive services—for example, in a regular classroom; in a regular classroom with the support of a paraprofessional or special-education teacher, or perhaps with additional support in a resource room or pullout setting; or in a self-contained special-education classroom. IDEA requires that students be educated in regular classrooms unless their academic and behavioral needs cannot be met in that setting even with the use of supplemental aids and services.

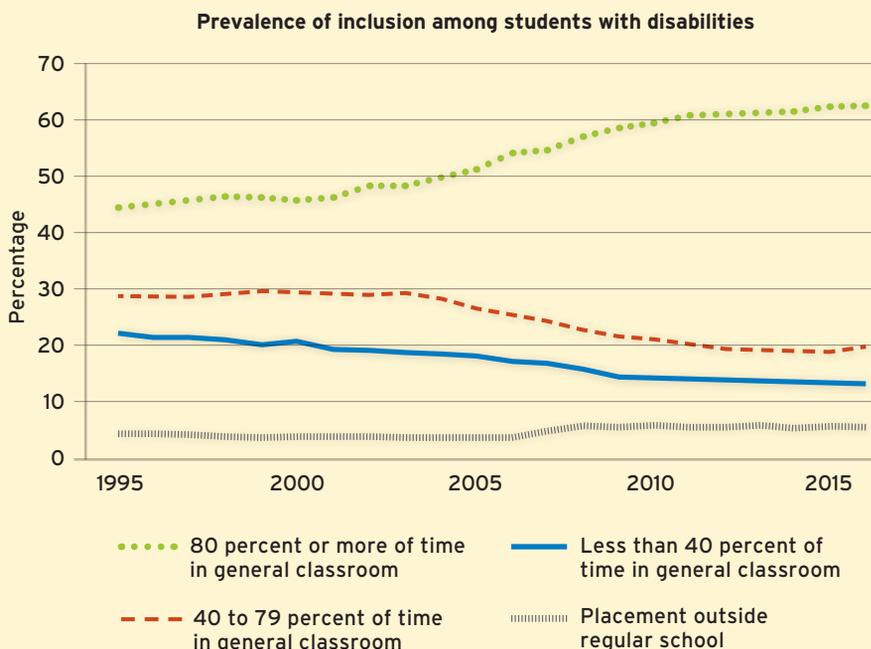
Consider the following two examples. A 1st-grade student with a speech or language impairment might require one hour of speech therapy a week from a speech/language pathologist to improve his enunciation. His IEP team may also decide that he needs accommodations in the classroom, as his impairment influences his reading fluency. Apart from his weekly speech therapy, the student would attend a general-education class with the occasional accommodation for his reading skills. Removing this student from the regular classroom because of an enunciation problem would be inappropriate: the student can likely make progress there with the suitable supplemental services and accommodations.

Contrast this student with a 5th-grade student receiving special-education services for a specific learning disability who is struggling with sounding out words while his non-disabled peers are focused on reading comprehension. Because this student has such significant educational needs, the IEP team would likely decide that he should receive some of his reading instruction outside of the regular classroom.

These examples illustrate the individualized nature of placement decisions. The IEP team determines

Growing Prevalence of Inclusion (Figure 1)

The inclusion of special-education students in general-education classrooms has become increasingly common, particularly in the last decade. In 2016, more than 60 percent of all students with disabilities spent 80 percent or more of their school day in regular classrooms, alongside their non-disabled peers.



NOTE: Data presented by calendar year in which the school year ends.

SOURCE: National Center for Education Statistics, Digest of Education Statistics

where a child will be educated based on the services the student needs and where those services can practicably be delivered. But IDEA explicitly states that most SWDs should be taught in the general-education classroom, and IEP team members may be unduly influenced by this requirement. For example, IDEA requires that states report to Congress each year the percentage of the school day that SWDs spend in general-education classrooms, in addition to other indicators such as dropout rates, SWDs' participation in assessments, their proficiency rates on these tests, and suspension and expulsion rates. The Department of Education compiles these data in an annual report to Congress and uses the information to determine if a state is in compliance with IDEA. In this publication, data related to the setting in which SWDs are educated are disaggregated by state, yet the data regarding student academic outcomes are not. The reports therefore appear to assess the extent to which students are receiving an appropriate education by the location in which they are served.

There is little federal guidance on whether schools can consider students' classmates and teachers in their decisions about where SWDs are educated, further complicating placement judgments. IDEA only briefly addresses the needs of non-disabled classmates: schools are required to consider the use of positive behavioral interventions when an SWD's behavior affects his classmates' learning. Beyond this mention of peers, federal policies pay scant attention to the interplay between SWDs, their classmates, and general-education teachers. Special-education case law includes conflicting opinions as to whether placement decisions can be based on how a student might influence their classmates. What is clear is that placement is to be an individualized decision determined by the needs of each student with a disability, but it seems unlikely that a student will derive appropriate benefit from the prescribed services if his placement causes disruption or detriment to his peers and teachers.

Access to the Curriculum

A key assumption of IDEA is that including SWDs in the regular classroom will expose them to grade-level, general-education curriculum. Yet *exposure* may not result in *progress* in that curriculum. Research suggests that many SWDs will not be able to advance along grade-level academic standards with the instruction typically provided in regular classrooms, even with accommodations and supports. For example, a recent

study by Lynn Fuchs and colleagues compared the size of the math achievement gap between students with or at risk for learning disabilities and their non-disabled peers. SWDs were randomly assigned to two groups. In the first one, students with or at risk for disabilities received intensive fractions instruction, exemplifying special-education techniques, while those in the

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second group were exposed to fractions instruction in the regular classroom with accommodations based on the principles of Universal Design for Learning (that is, instruction that includes multiple means for students to express what they know). The math achievement gap between students with or at risk for disabilities and without disabilities in the regular classroom setting was twice as large as the gap in the first group (see Figure 2).

It is a mistake to equate the setting in which a student is educated (that is, the general-education classroom) with the actual progress a student is making. Such an assumption ignores the fact that students are found eligible for special-education services precisely because they are failing to progress in general education. Placement data may suggest that SWDs are being exposed to the general-education curriculum, but achievement data suggest that they are not actually learning the curriculum: SWDs placed in general-education classrooms continue to lag dramatically behind their peers. A recent meta-analysis that I conducted with my colleagues Doug Fuchs and Joe Wehby estimated that SWDs score about 1.2 standard deviations below their non-disabled peers in reading, a gap that translates to more than three years of academic growth. Achievement gaps between SWDs and their peers are similarly large in math. Though federal

laws stress the importance of educating SWDs in the regular classroom, there is no good evidence that placement there improves the outcomes of these students.

Inclusion and Student Outcomes

That’s not to say that researchers have not examined the issue. Many studies have compared SWDs who are educated

in inclusive settings to those who are educated in special-education settings, generally finding that the former have better academic, social, and long-term outcomes. For example, data from the Special Education Elementary Longitudinal Study conducted from 2000 to 2006 show that SWDs who spent 75 percent or more of their school day in inclusive settings scored higher in reading comprehension and math than those who spent 25 percent or less of their day in such settings. These results fueled the push to move more SWDs into general-education classrooms.

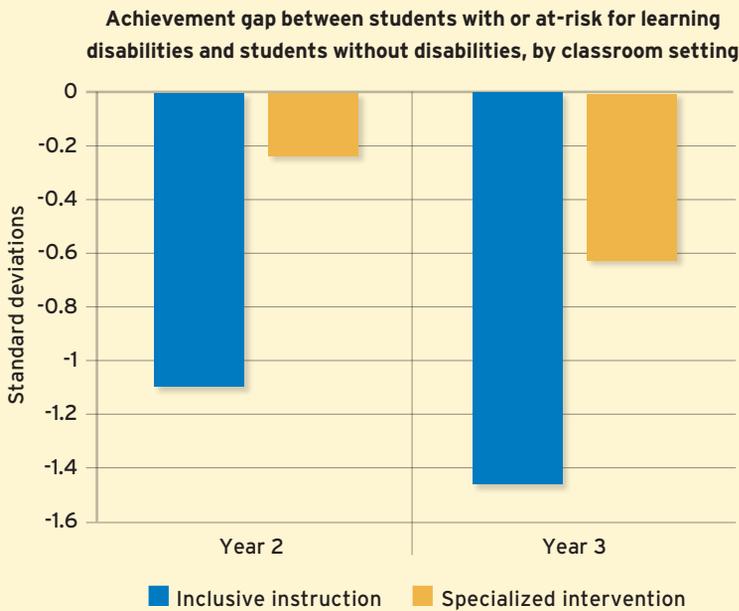
More-recent work also finds that SWDs educated in general-education settings have better outcomes. Roddy Theobald and colleagues observed that high-school students with disabilities in Washington State who spent more time in general-education settings had higher reading scores than their peers who had less time in such settings, even after taking into account differences in prior achievement and a wide range of student characteristics. They were also more likely to graduate on time and enroll in college than students educated in more-restrictive settings. Laura Schifter has reported similar results regarding graduation for students in Massachusetts: SWDs educated in general-education classrooms have higher probabilities of graduating than their peers who were educated in more-isolated settings. These recent studies and others have led many to conclude that inclusion benefits SWDs.

Unfortunately, this determination ignores a major limitation of the current research base: the failure to account for selection bias. Students with higher academic abilities or fewer behavioral challenges are more likely to be placed in inclusive settings, while their peers who may have the same disability label but greater learning or behavioral needs are placed in special-education settings. The consistent finding that SWDs have better outcomes when educated in general-education settings likely reflects this bias. Even in studies that account for students’ prior levels of academic achievement, the researchers may not capture all the aspects of a student, such as his behavior, that can influence both the setting in which he is placed and his future outcomes. A student’s educational placement is an IEP team decision and may be based on a host of factors not included in the administrative data sets to which researchers typically have access. This makes estimating the true causal effect of inclusion on student outcomes nearly impossible.

One study does improve on these others in

Achievement Gap Larger in an Inclusive Setting (Figure 2)

A recent synthesis of results from three randomized control trials found that the math achievement gap between students with or at risk for disabilities and students without disabilities was twice as large for students educated in a regular classroom setting than for those receiving specialized intensive instruction.



NOTE: The results are averaged across three measures: “Comparing Fractions” from the 2012 Fraction Battery (Schumacher, Namkung, Malone, & Fuchs, 2012); the sum of “Fraction Addition” and “Fraction Subtraction” from the 2012 Fraction Battery (Schumacher et al., 2012); and 19 released fraction items from the 1990-2009 National Assessment of Educational Progress.

SOURCE: Fuchs et al., “Inclusion Versus Specialized Intervention for Very-Low-Performing Students: What Does Access Mean in an Era of Academic Challenge?” *Exceptional Children*, 2015, Vol 81(2)

regard to selection bias. In 2002, Eric Hanushek and colleagues used Texas students whose special-education classification changed over time to examine the influence of special-education classification (as determined by a student having an IEP) and educational setting on students' math outcomes. The researchers first compared the students' progress in school years when they had an IEP to their progress when they did not have an IEP, allowing each student to serve as his or her own control. They found that students scored higher on state math assessments when they had an IEP than when they did not. This result suggests that special-education services may benefit the students who receive them. When the researchers examined SWDs' math achievement by the setting in which they were educated, however, they found that SWDs performed neither better nor worse in regular classrooms than in special-education settings. While this study design is stronger than that of the research discussed above, its results only extend to students who took the regular state assessment and whose special-education eligibility changed over time, thus excluding students with more-significant disabilities. The one clear takeaway is that accounting for unmeasured differences between students who are placed in different types of settings can influence estimates of the association between general-education placement and student outcomes.

In sum, ample correlational evidence confirms that SWDs have better academic and social outcomes when they spend more time in general-education classrooms. But our ability to draw conclusions from these studies is limited, because it is likely that SWDs who would be expected to have better academic and social outcomes are more often included in general-education classrooms than their peers with more-intensive needs.

Inclusion and Peer Outcomes

A key component of inclusion is that SWDs are educated with their peers who do not have disabilities, yet little research has examined whether and how SWDs' outcomes are influenced by their peers—and vice versa. The scarcity of research in this area is surprising, as research on peer effects in general education shows that students' classmates shape their educational experiences. Particularly concerning are findings that students' academic and behavioral outcomes are influenced by classmates who exhibit challenging behaviors. For example,

Scott Carrell and Mark Hoekstra found that an increase in the percentage of students' classmates who had experienced domestic violence—a variable highly correlated with children's behavior—negatively affected students' academic outcomes and increased their behavioral problems (see “Domino Effect,”

The consistent finding that students with disabilities have better outcomes when educated in general-education settings likely reflects selection bias: students with higher academic abilities or fewer behavioral challenges are more likely to be placed in inclusive settings.



research, Summer 2009). Further, exposure to a peer who was more likely to exhibit challenging behavior led students to complete less schooling and earn less as adults. These findings are relevant to the topic of inclusion because SWDs have a higher probability of exhibiting challenging behavior than their peers without disabilities.

Most students without disabilities have at least two SWDs in their classes, but few studies have examined whether SWDs affect their classmates. Early studies that addressed peer effects in inclusive classrooms using older data did not identify any negative academic consequences of inclusion for students without disabilities. However, more-recent research based on the U.S. Department of Education's Early Childhood Longitudinal Studies (ECLS) has identified some worrisome findings, particularly related to the inclusion of students with an emotional/behavioral disorder (EBD).

These recent studies have examined both academic and social outcomes of students without disabilities in inclusive classrooms. In a 2009 study, Jason Fletcher found that having a classmate with an EBD was associated with a 0.09 standard-deviation decrease in students' math scores and a 0.13 standard-deviation decrease in students' reading scores. In 2016, Michael Gottfried and colleagues reported that students without disabilities who had a classmate with an EBD were 1.42

times more likely to be chronically absent than those who did not have such a classmate. A 2014 study by Gottfried found that students without disabilities were rated by teachers as having more behavior problems, lower levels of self-control, and lower interpersonal skills when they were in classrooms with SWDs, not just students with an EBD.

These studies, like those relating inclusion to SWDs' outcomes, are correlational and must be interpreted with caution. Yet they improve on prior work by limiting comparisons to students attending the same school. This approach allows the researchers to rule out the possibility that their results reflect differences in the characteristics of schools that make greater use of the inclusion model. These studies do not account for the sorting of students within schools based on unobserved characteristics, such as if students who exhibit more problem behavior owing to a change in their home life in a specific school year are grouped in classes with more SWDs. However, this type of sorting seems less likely than the sorting of higher-achieving SWDs into inclusive classrooms, which is a natural byproduct of the IEP process. Though this body of work is small and just emerging, the findings underline the importance

of examining whether and how the inclusion of SWDs in general-education classrooms may change the environment in ways that affect their peers.

Inclusion and Teachers

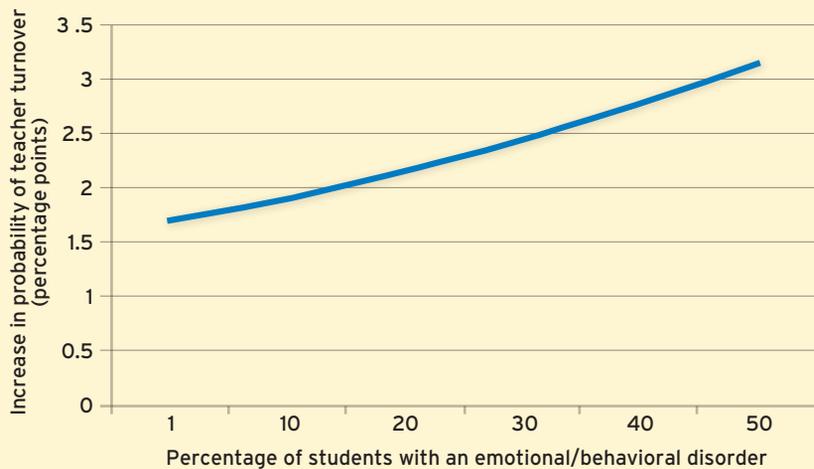
Teachers are likely a key element in the successful inclusion of SWDs, but again few studies have investigated how general-education teachers are influenced by the presence of SWDs. An older body of research examined the attitudes of general-education teachers toward having SWDs in their classrooms. These studies reported that general educators were accepting of SWDs in their classrooms under certain conditions—for example, if additional supports were provided to the teacher and if the SWDs did not exhibit disruptive behavior. Yet both surveys and qualitative studies found that general-education teachers often do not have training, or feel they have the proper skills, to meet the academic and behavioral needs of SWDs while also teaching their non-disabled peers.

Two recent studies have aimed to assess the experiences of general educators with SWDs in their classrooms. These works are, again, correlational and not causal. Using an administrative data set from North Carolina, I estimated the association between the percentage of SWDs in teachers' classes and the rate of teacher turnover, as defined by changing schools or leaving teaching in the state. I found that the probability of turnover increased as the percentage of SWDs in teachers' classes went up if the teacher was not certified in special education, after controlling for differences in student, teacher, and school characteristics. This increase was especially pronounced when teachers had students with an EBD in their classrooms (see Figure 3). All else being equal, teachers with classes in which 20 percent of students had an EBD were 2.15 percentage points more likely to leave their school or teaching than teachers who had students with disabilities in their classes, but none with an EBD. I also found that the teachers who, based on other characteristics, were most likely to change schools or leave teaching were actually the least likely to have SWDs. This suggests that schools are not assigning SWDs to teachers who are more likely to leave and attenuates concerns that the relationship between the presence of students with an EBD and turnover is an artifact of selection bias.

Inclusion and Teacher Turnover

(Figure 3)

North Carolina teachers are more likely to change schools or leave teaching in the state when a greater share of their students have an emotional/behavioral disorder.



NOTE: Figure shows the estimated increase in the probability that a general-education teacher in North Carolina will switch schools or leave teaching in the state associated with having a given percentage of students with emotional/behavioral disorders.

SOURCE: Author's calculations

Teachers might also be changing their instruction in undesirable ways when they have SWDs in their classrooms. North Cooc recently examined the amount of time teachers of inclusive classrooms reported that they spent on instruction, using data from an international survey of teachers. He found that teachers reported that they spent less time on instruction and more time on classroom management when their classes contained more SWDs. The association between instructional time and having SWDs in the classroom nearly disappeared once Cooc accounted for the number of students in teachers' classes that exhibited disruptive behavior.

These studies provide preliminary evidence that the presence of SWDs affects teachers in ways that could negatively influence the teachers themselves with regard to turnover, the outcomes of SWDs, and their peers without disabilities. Clearly, more research is needed to understand how teachers address the needs of SWDs in their classrooms and how inclusion changes the demands placed on educators with potentially negative consequences for all students.

Research on general-education teachers and their role in educating students with and without disabilities is particularly important given that general-education teachers are the primary educators for both of these populations. Jim Dewey and colleagues reported in 2017 that the number of special-education teachers declined more than 17 percent between 2005 and 2012; the number of students with special needs also decreased, but by only 4 percent. The student-to-teacher ratio in special education is now greater than the overall student-to-teacher ratio, suggesting that SWDs spend more time with general educators than with special educators. Even SWDs with the most significant needs, such as students with intellectual disabilities or autism, are often instructed by teachers without special-education certification. Since general educators are largely responsible for teaching SWDs, it is critical that we understand their role in teaching all students if we hope to improve outcomes for all.

An Ecological Perspective

Overall, what is known about inclusion from research is quite limited in the context of such a widespread practice. SWDs appear to have better outcomes when educated in inclusive settings, yet studies of the association between setting and outcomes do not account for important differences between the SWDs placed in inclusive classrooms and those who are taught in special-education settings. Students without

disabilities have lower academic and behavioral outcomes when they are taught in classrooms that include SWDs, particularly students with an EBD. General-education teachers may welcome SWDs into their classrooms, but they spend more time on classroom management and less on instruction and are more likely to leave teaching when SWDs are present. This limited body of correlational research may not provide

Both surveys and qualitative studies have found that general-education teachers often do not have the training, or feel they have the proper skills, to meet the academic and behavioral needs of students with disabilities while also teaching their non-disabled peers.



many conclusions about inclusion, but it does suggest a framework for future research and policy decisions.

In particular, this research highlights the importance of evaluating inclusion from an ecological perspective. Instead of focusing narrowly on the effects of inclusion on outcomes for SWDs, an ecological perspective would acknowledge that inclusion influences SWDs, their peers without disabilities, and general-education teachers, and should focus on the interactions between and among these three groups. SWDs may influence their peers, but this relationship likely goes both ways. If peer behavior changes in response to the inclusion of SWDs in the classroom, these changes likely influence teacher behavior. Without understanding how inclusion influences all three groups and the complex interactions among them, inclusion is unlikely to be successful for all those involved. The small body of literature that currently exists tends to examine the experiences of SWDs, their peers, and their teachers separately. Moving forward, researchers should focus more holistically on the classroom ecosystem in order to identify the conditions and supports necessary for inclusion to improve outcomes for all students. The results of these studies could be used to develop interventions that support teachers who work with SWDs in inclusive settings, to determine effective service-delivery

models that enable all students to access the general curriculum, and to investigate ways that students of different ability levels can benefit from each other.

But considering inclusion from an ecological perspective is problematic in the context of current policy guidance and special-education case law. IDEA emphasizes the importance of making placement decisions based on the needs of an individual student, not the implications of the decision for their classmates or teachers. In its 2017 decision in *Endrew F. v.*

General-education teachers may welcome students with disabilities into their classrooms, but they spend more time on classroom management than instruction and are more likely to leave teaching.



Douglas County School District, the Supreme Court established a higher standard for determining the “educational benefit” a student is entitled to receive under IDEA. The new standard emphasizes the “unique circumstances” of the individual student, and it is likely that these “circumstances” could include the available teachers and the student’s classmates. For example, parents and school personnel deciding on where a student should receive individualized reading instruction may weigh the ability of the general-education teacher to provide this instruction in her classroom against the ability of a specially trained teacher to provide it in a pullout setting. IEP team deliberations might also include frank discussions of teachers’ skills at meeting the needs of all students in a classroom. Considering such factors means acknowledging the unique circumstances and constraints within a school and the reality that the education of SWDs is not context-free. In fact, a study I conducted with Gary Henry suggests that schools may already be making decisions about how best to educate SWDs based on the available resources in a school. We find that students with autism and intellectual disabilities are more likely to be grouped with other students with similar disabilities in smaller classes taught by special education–certified teachers. The

legality of taking this ecological approach to placement decisions is questionable under current federal policy and requires clarification when Congress next revises IDEA.

In the meantime, policymakers and school personnel should keep in mind the limited evidence base suggesting that placing an SWD in a general-education classroom will result in the student making progress in the general-education curriculum. Special education is an amalgam of services, not a place. IDEA requires that SWDs receive educational services based on their

individual needs. This means that decisions about where a student is educated should not be dictated by school, district, or state bureaucratic goals related to the percentage of SWDs that “should” be included in the general-education classroom for a fixed amount of time each day. Instead, decisions regarding placement in a general-education classroom, special-education classroom, or a mixture of settings should be determined by students’ individual needs. If a student is not making progress in an educational setting, the student is not accessing the curriculum. Oftentimes, students may need intensive and individualized instruction to make progress and gain access to the general-education curriculum. This level of instruction might not be possible if a student is taught exclusively in a general-education setting.

On a related note, policymakers should stop using location or setting as an indicator of access. Increasing the numbers of SWDs

in regular classrooms does not necessarily result in improving their academic outcomes, and may unintentionally affect non-disabled peers and general-education teachers. When the numbers of SWDs in inclusive classrooms rises without a concomitant increase in their achievement, it could mean that schools are failing to make individualized decisions regarding placement. This conflicts with IDEA’s mandate and will not result in better outcomes for students.

Special education in the United States has long focused on improving SWDs’ access to neighborhood schools, general-education classrooms, and the general-education curriculum. Policies and practices have increasingly veered toward inclusion. However, these policies, and the research on their effects, have narrowly focused on SWDs’ outcomes without considering the confluence of factors that can affect a classroom. With inclusion as the dominant model in special education, it is imperative that researchers also focus on whether and how these students influence the experiences of their peers and their teachers in order to make schools effective for all children.

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