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Exploring Patterns in Due Process Hearing Decisions Regarding the Usage of One-on-One
Inclusion Aides for Students with Disabilities

Joel K. Perkins

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Doctor of Education

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ABSTRACT

Exploring Patterns in Due Process Hearing Decisions Regarding the Usage of One-on-One Inclusion Aides for Students with Disabilities

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Doctor of Education

This study reviews due process hearing decisions from the years 2014 and 2015. This is primarily a legal analysis, specifically looking at legal and regulatory patterns regarding the provision of one-on-one special education aides for students with disabilities in general education settings. Our findings from the due process hearing decisions reveal that one-on-one aides for students with a wide variety of disabilities are being provided with greater frequency than we anticipated and that, specifically, behavioral aides are being provided for students with autism. Decisions of disabilities such as hearing impairment have higher provision rates, while other disabilities like autism and emotional disturbance do not see the same rate of provision. There are clear patterns of differences between the states in the number of cases that reach due process hearings and in the number of one-on-one aides provided.

Keywords: One-on-one aide, behavioral aide, inclusion, least restrictive environment, autism, due process hearings

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DESCRIPTION OF STRUCTURE AND CONTENT

This manuscript is presented in the format of the hybrid dissertation. The hybrid format focuses on producing a journal-ready manuscript, which is considered by the dissertation committee to be ready for submission for publication. Therefore, this dissertation does not have chapters in the traditional dissertation format. The manuscript focuses on the presentation of the scholarly article. This hybrid dissertation also includes appended materials. Appendix A includes an extended literature review, Appendix B includes a section for extended methods, and Appendix C contains information regarding the legal citations used throughout the dissertation. This hybrid dissertation format contains two reference lists. The first reference list contains references for citations included in the journal-ready article. The second reference contains references for all citations used in the journal article and appendices.

This dissertation follows American Psychological Association (APA) 6th edition 2010 guidelines. APA, in its Appendix 7.1, adopts Bluebook 18th edition, 2005 for legal materials. It notes:

Legal periodicals and APA journals differ in the placement and format of references.

The main difference is that legal periodicals cite references in footnotes, whereas APA journals locate all references, including references to legal materials, in the reference list.

For most references, use APA format as described in this chapter. References to legal materials, however, which include court decisions, statutes, other legislative materials, and various secondary sources, are more useful to the reader if they provide the information in the conventional format of legal citations. . . . For more information on preparing these and other kinds of legal references, consult the latest edition of *The Bluebook: A Uniform System of Citation*. (*Bluebook*; 18th ed., 2005)

In conformity with Appendix 7.1 some legal sources in this text are cited in Bluebook style within the text instead of at the end in a reference list.

The targeted journal for this dissertation is *Exceptional Children* (2015 Impact Factor: 2.796). *Exceptional Children* is sponsored and published by the Council for Exceptional Children (CEC), a large professional organization comprising special educators, administrators, professors, para-educators, and parents. CEC is focused on helping students with disabilities and/or gifts and talents succeed. CEC works to improve both general and special education. The CEC works to find ways to better find, educate, and care for students with exceptionalities by working at the federal, state, and local levels. The target audience for *Exceptional Children* is composed of national, state, district, and school level administrators, and practitioners in special education. Articles submitted to *Exceptional Children* are typically 25 to 35 pages in length, including cover page, abstract, references, tables and figures per the *Publication Manual of the American Psychological Association*, 6th Edition, 2010 (APA) guidelines.

Background

“Recess, Papa, recess! We played tag,” my then nine-year-old boy said in response to my question about his favorite part of his school day. Like most fourth graders, my son’s preferred part of school happened outside of instructional time. This is not a reflection of teachers, rather a reality shared by fourth graders everywhere. Despite this common attitude, there is a great difference in the shared experience at school between my son and his peers. My son, born with several disabilities, spent the majority of his day in a small group classroom with only a handful of other students with autism. One of the few options that my son had to interact with his grade-level peers occurred during recess. My son, despite having a great memory and strong intellect, struggles to succeed in a general education setting due to disabilities that manifest mostly in behavioral challenges. His frequent need for redirection and help staying on task places too much of a burden on the regular education teacher. Students with disabilities like my son may need some type of additional support to succeed in an inclusive general education setting.

My high school’s purpose statement—“High levels of learning for all students”—conveys a strong meaning and high standard and, as the principal, I strive to ensure all students, regardless of age, gender, race, or disability succeed. Students with disabilities have long struggled to reach a *high level of learning* and continue to need intensive support and special education services to close the achievement gap.

According to the Individuals with Disabilities Education Improvement Act (IDEIA) Pub. L. No. 108-446, students with disabilities need an Individualized Education Program (IEP) in order to help them be successful. A group of teachers, administrators, and parents, as part of the student’s IEP team, establishes a plan to provide different special services, supports, and accommodations to help each student achieve success. These IEPs are unique because every

student with disabilities has different needs, and the team wants to create the best possible scenario for each student. In fact, these students have the guarantee from federal and state statute that they will receive a free and appropriate public education (FAPE), and they have the right to be educated as much as appropriate in a regular education setting with their grade-level peers.

A student's placement in the special education world falls under the umbrella of least restrictive environment (LRE). Specifically, IEP teams make the decision on what is the least restrictive environment in which a student can receive a FAPE. The key points of the LRE mandate are twofold. First, all students with disabilities have the right to be educated with nondisabled peers. Second, only when the regular education placement with the use of supplementary aids and services cannot provide a satisfactory education, the IDEIA explains that the student with disabilities may be educated in an environment other than regular education. At the point that the IEP begins discussing a different setting, the IDEIA also provides a continuum of settings from least to most restrictive environment: Regular Classroom, Special Classes, Special Schools, Home Instruction, and Instruction in Hospitals or Institutions. IEP teams need to consider the setting that is most appropriate and least restrictive for the student while at the same time is educationally appropriate and allows for the greatest degree of integration (Yell, 1995a).

As special education law creates the structure and often the methods, it is appropriate to consider the court decisions regarding LRE. While the U.S. Supreme Court has not made any rulings, there have been several U.S. Courts of Appeal decisions that are looked to for definition. From *Daniel R.R. v. State Board of Ed.*, 874 F.2d 1036 (1989), the court put forth the Daniel test: Can satisfactory education in a regular education setting be achieved with the use of supplementary aids and services? If satisfactory education cannot be provided, and the school

removes the student from a regular education setting, does the school mainstream the child to the maximum extent appropriate (Yell, 1995a)?

Both *Greer v. Rome City School District*, 950 F.2d 688 (1991) and *Oberti v. Board of Education*, 995 F.2d 1204 (1993) applied the Daniel criteria and, in both cases, the courts ruled against the schools. These major court decisions found that the schools failed to consider the full continuum and aids that would have allowed student to remain in regular education settings. The courts also mentioned that the schools did not attempt to modify regular class curriculum to assist the student to remain nor did they provide adequate support services to allow the student to remain in the regular education setting (Yell, 1995a).

The key to maintaining a student in a less restrictive setting is the provision of supplementary aids and services. “Supplementary aids and services may include pre-referral interventions, consultation, behavior management plans, paraprofessionals, itinerant teachers, resource rooms, assistive technology, staff in-services, and any other support for the student and his or her teachers” (Yell & Katsiyannis, 2004, p. 31). Often the use of supplementary aids and services makes learning in the regular education environment possible for students with disabilities (Yell, 1995b). The supplementary aids and services provided to students range dramatically depending on the needs of the students. The aids and services also differ significantly based on IEP teams, school districts, and by individual states. For example, a multidisciplinary team may determine that a student with a severe hearing impairment or deafness will receive the support service of a sign language aide to interpret instruction and interactions in a general education class. This aide accompanies the student to all classes and helps the student in a one-on-one capacity.

A review of the literature indicates an abundance of research that students with learning disabilities make significant improvements both academically and socially when educated by general education teachers with their grade-level peers in inclusive and mainstream settings with appropriate levels of special education support (King, 1994; Klingner, Vaughn, Hughes, Schumm, & Elbaum, 1998; Levin, 1989, 1993; Rea, McLaughlin, & Walther-Thomas, 2002; Johnson, 2007; Hawkins, 2011). Inclusion is presumed to work best, but providing appropriate levels of support is challenging.

A one-on-one aide is a paraprofessional assigned by an IEP team specifically to support a single student in a regular education classroom setting. These aides play a vital supporting role in helping students with disabilities succeed in a classroom with their peers. They allow these students to receive grade level instruction from regular education teachers and support from special education staff (Idol, 2006). There are many types of one-on-one aides, the experience of the authors has shown that a discrepancy exists between the types of disabilities that receive one-on-one aides for inclusion purposes.

In some states, like Utah, the use of a one-on-one special education aide for students with disabilities in regular education classrooms has been considered a more restrictive environment than a pull-out special education classroom (Copenhaver, 2006). According to the LRE definition in IDEIA, students with disabilities should be educated in regular education settings to the maximum extent appropriate with appropriate aids and services (Yell, 1995b). The statute itself does not indicate that the aides and services should be limited by disability type.

One-on-one aides can be cost prohibitive. It is our hypothesis that one-on-one aides are used less frequently for students with behavioral disabilities than other disabilities. In fact, it seems that students with behavioral disabilities are often placed in a more restrictive placement

like a pull-out specialty class or unit. The costs to provide a one-on-one aide for inclusion purposes for each student with behavioral disabilities is quite high. In my school for example, a special education aide costs anywhere from 12,000 to 15,000 dollars a year. These costs could be a major factor in why some states are not providing a one-on-one aide for students with disabilities that are more prevalent.

This study endeavors to provide a broader understanding of appropriate application of one-on-one aides with the focus on greater inclusion and increased regular education support for students with behavioral challenges. The goal is to illustrate patterns in application of the law to help advocate for IEP teams to consider other options of support before defaulting to pull-out classes. Decisions made by administrators about LRE for students can mirror the purposes of the statute for the good and educational attainment for students with disabilities. This research seeks to understand differences between the states in application of the law.

If parents are dissatisfied with the services or support that the school district offers and do not feel that they can resolve the matter without help, the parents and their child have the right to a due process hearing (DPH). An Independent Hearing Officer (IHO) listens to both sides present their decisions. The IHO then makes a binding determination and produces the written decision. Nichols (2016) described the role that due process hearings play in the actualization of law:

The United States Supreme Court has ruled on very few cases about educating students with disabilities. Circuit courts have provided additional guidance on the LRE for all students; although, there are not many appellate decisions either. The issues that are adjudicated are done mostly at DPHs. This is the venue where case law is determined. DPHs might be thought of as a trial court for special education. (pp. 10-11)

Due process hearing decisions are the embodiment of special education law. Legal practitioners and special education administrators utilize these decisions as a guide to appropriate implementation strategies.

This research is primarily a legal analysis, specifically looking at patterns regarding one-on-one special education aides for students with disabilities in educational settings. Analysis of the federal IDEIA as well as all Supreme Court and U.S. Court of Appeals decisions provides the legal framework on this issue. Most important to our research is a nationwide database of due process hearings called *Special Ed Connection* (n.d.). Nichols (2016) utilized this database in her work and illustrated its key details:

This database is an extensive collection of DPHs by experts in the field. The rulings are made by independent, specially educated personnel who may have different titles, depending on the state they come from. Some of the titles are Administrative Law Judge (ALJ), IHO, or Hearing Officer (HO). If the case is appealed, it is heard by a state review officer (SRO). These cases represent all circuits in the United States. There are very few special-education cases that reach circuit courts and exponentially fewer that reach the United States Supreme Court. (p. 11)

We anticipated finding many due process decisions in which the issue the parents and the school contended over was the provision or lack of provision of a one-on-one special education aide. A longstanding and understandable precedent exists for IEP teams providing American Sign Language (ASL) interpreters for those students who need them. Other than students who are deaf, we expected to find very few students who received a one-on-one aide, especially among students with behavioral disabilities. IDEIA indicates concerning the least restrictive environment:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

IDEA Pub. L. No. 108-446 at 118 STAT. 2677.

The goal of this research was to provide insight as to how a broad statute like IDEIA is applied at the local level and identify patterns in the different ways the varying states applied the law. These differences reveal inequities or blind spots in meeting the students' needs. The purposed and bedrock principle of IDEIA is a specialized and individualized decision for each qualifying student. Thus educators should avoid falling back on preset guidelines or paradigms that might result in an IEP team not considering one-on-one aides when appropriate. We began this research with this idea that we would see patterns in due process hearings that might evidence a less than individualized approach in the provision of one-on-one aides. In order to help all students attain high levels of learning, educators must reconsider the levels and types of support that IEP teams can and should be providing to all students. This research investigated all relevant due process hearing decisions in 2014 and 2015, and attempted to gain an understanding of the patterns of the provision of one-on-one aides... Because states differ so much in their approaches, we wanted to understand what kinds of conflicts are coming to due process hearings regarding the provision of one-on-one aides and how the supplementary aids and services are being provided by the IHOs.

Methods

There is limited precedent established in this area of special education law and specifically in terms of due process hearing decisions. Charles Russo (2015) explains best the goal of this type of research: “Individuals who conduct systematic inquiry in the law can deepen their insight into their unique subject of study and can help others in their understanding of the relationship between the law and education” (p. 22).

The focus of the analysis is to determine if the application of FAPE is equitable for all students with disabilities, especially in circumstances that require more expensive interventions like one-on-one aides. The IDEIA and Supreme Court and U.S. Court of Appeals decisions interpreting IDEIA provide the legal backdrop for this issue.

The dataset for our research comes from the legally binding due process hearing decisions contained in the Individuals with Disabilities Education Law Reporter (IDELR) nationwide database called *Special Ed Connection*. We researched this extensive and expensive collection of due process hearings online through access provided by the Brigham Young University (BYU) Howard W. Hunter Law Library.

The target population for this work consisted of due process hearings involving potential one-on-one aide support nationally in the United States. The accessible population for this study were the digitized decisions that have been uploaded in *Special Ed Connection*. The database includes the due process hearing decisions from across the country except those sealed by the IHO. A team of researchers works via Freedom of Information Act (FOIA) requests to procure all decisions of public record for inclusion in the database. They gather these public records from each of the states and the District of Columbia for the database. While all efforts have been made

to ensure that the database is comprehensive, some decisions may not be available to be published due to privacy concerns.

Given that all of the data for this study is in the public domain, no need existed to protect identities or information. With this dataset, it was not possible determine if due process decisions differed across various demographic characteristics. It would be naive to assume that there are not specific demographic variables that could potentially affect this study. This information, however, is not available in our dataset. We recognize definite demographic possibilities involved in the parents who would seek due process decisions. Parental factors like socioeconomic status, race, ethnicity, education levels, and advocacy support all play into the decision to take an issue to the due process level. However, given that these variables cannot be identified by the dataset we utilized, they therefore fall outside the scope of this study.

The database is available online and searchable with Boolean operators. Using the Boolean operators, we conducted a search of the database to discover all decisions that mention the use of a one-on-one aide. We used multiple search terms in the Boolean operator including variations of terms such as *one-on-one aides*, *one-on-one para educator*, and *one-on-one behavioral aides*.

The sample used in this research consists of those decisions mined from the database for all decisions that involved the provision of a one-on-one aide. We broke down the search by one-year increments, beginning with four years as the initial timeframe. Table 1 indicates the list of first combinations of Boolean search terms and the resulting number of decisions identified per year. We anticipated a widely diversified use of special education vocabulary by each state. We consulted with practitioners at both the school, district, and university levels to review the search terms and provide additional alternatives potentially missed. We expanded the search terms to

ensure that no relevant decisions were overlooked. Table 2 reflects a further expansion of search terms.

Table 1

Initial Terms Used for Boolean Search of Due Process Hearings

Exact Search Terms	2015	2014	2013	2012
1:1 aid	4	0	1	1
1:1 aide	58	69	70	64
One on one aid	8	8	3	6
One on one aide	75	70	79	81
1:1 para educator	0	3	0	0
1:1 para educator	1	2	1	2
One on one para educator	0	0	4	0
One on one para educator	1	1	6	0
One on one behavioral aide	1	2	1	0
1:1 behavioral aide	0	1	3	1
Totals	148	156	168	155

Note. All spelling options were considered to recognize the applicable alternatives.

Table 2

Expanded Search Terms for Boolean Search of Due Process Hearings

Additional Terms	2015	2014	2013	2012
1:1 para	2	11	3	2
Shadow	16	21	20	20
SCIA*	2	0	3	2
1:1 instructional assistant	1	2	1	0
1:1 classroom assistant	0	0	0	0
One on one instructional Assistant	3	2	3	0

Note. *SCIA is an acronym for special circumstances instructional assistance

In the initial searching, we discovered that only two decisions surfaced in a 10-year window related to the search terms *ASL interpreter*. We questioned the plausibility of the possibility of this phenomenon. It seemed possible that this differential in number of the decisions was due to the lack of need to pursue such hearings given the widespread acceptability of providing one-on-one ASL interpreters. However, we wanted to investigate thoroughly this point. After broadening the search terms to encompass possible variations of *ASL interpreter*, we discovered additional applicable decisions (Table 3).

Table 3

Additional Terms to Find ASL Interpreters in Boolean Search of Due Process Hearings

Search Terms	2015	2014	2013	2012
ASL interpreter	0	0	2	0
Sign Language interpreter	14	9	10	6
ASL specialist	0	0	0	0
Deaf interpreter	0	0	0	0

A review of hearings in the four most recent years demonstrated that there were not major differences by year in number and type. The consistency in the years, and consultation with other researchers, supported the team decision to use purposive sampling to confine the dataset to those decisions identified in a two-year period, specifically the most recent years 2014 and 2015. This two-year window created a grouping of 225 due process hearing decisions.

Each due process hearing had a published decision. These 225 decisions ranged in length from 1 to 69 pages providing a total of 3,971 pages for analyses. We read each case and located the specific and relevant information for each decision: year, state, type of disability, type of setting, type of inclusion aide, if the aide was provided, school type, LRE issue, FAPE issue, whether the one-on-one aide provision was the central issue or the pivotal issue in the decision, and whether the parents were requesting the one-on-one aide. This data was compiled in an Excel spreadsheet. Most of the categories are attributes noted by short definitive titles like year, state, disability, setting, LRE, and FAPE.

We created disability categories based exactly on those listed in the due process hearing documents. For the sake of transparency, we acknowledge the challenges in categorizing disability types. For example, the majority of states classify all students with attention-deficit hyperactivity disorder (ADHD) under the special education classification of other health impaired (OHI). However, in this study, several hearing documents listed that the students received services based on qualifying for special education services with the disability of ADHD

and not the traditional classification of OHI. This research team, focusing on the need for accuracy, used the specific disability listed in the hearing decisions for qualification. In the written decisions for several states, like Hawaii and New York, it was common practice for the hearing officials to remove the specific disability of the student as well as the school level from the decision documents. The uploaded cased files featured blank spaces where that information would have been located. In this case, the term *undisclosed* was used to indicate that the specific disability was not identified in the written decision. Occasionally, while suppositions could have been drawn from the service pattern described in the hearing document to assume the student's type of disability, the term *undisclosed* was used.

Many types of inclusion aides exist and the states use many different names for types of aides in the due process hearings. The titles listed in the hearing decisions for the type of one-on-one aide provided and/or the type of responsibilities that the aide carried out were utilized to sort the aide type into the following 10 categories: Behavior, Instructional Assistant, Safety, Medical, ASL, Shadow, Communication, Physical Assistance, Language, and Unspecified (see Table 4).

The research team employed Excel to sort, categorize, and view relationships in the dataset to discover patterns in the due process decisions. We sorted the data by different variables and utilized cross tabulation features to view specific patterns in the data.

Findings

Many interesting points emerged in the review of our findings. Analyses identified four patterns in the data related to the provision of one-on-one aides: (a) by states; (b) by type of aide and disability; (c) by central issue and disability; and (d) by decisions of LRE and FAPE.

Table 4

Definitions of Types of One-on-One Aides

Type of Aide	Definitions
Behavior	Aide provides specific behavioral interventions
Instructional Assistant	Aide provides academic and organizational support and instruction
Safety	Aide ensures safety for student either from self-harm or from others
Medical	Aide provides specific medical support—nurse or trained professional
ASL	Aide provides sign language interpretation
Shadow	Aide keeps an eye on student from a distance, only intervenes in extreme circumstances
Communication	Aide helps student with speech related issues of communication
Physical Assistance	Aide provides physical support—i.e., navigating halls, changing, going to the bathroom
Language	Aide provides language translation services
Unspecified	Aide listed as one-on-one, but no specific type of responsibilities listed

Note. The majority of hearings listed the title of the aide. When a title was not listed, we utilized the tasks assigned to determine aide type.

Provision of One-on-One Aides by State

A review of the different states yielded interesting patterns related to the number of due process hearing decisions and the number of one-on-one aides provided. Twenty-eight states and the District of Columbia are represented in our timeframe of hearings (see Figure 1). Cross-referencing the number of due process decisions with the top 10 most populous states in the United States in 2014 revealed some intriguing patterns (see Table 5). According to the U.S. Census Bureau Report: *Florida Passes New York to Become the Nation's Third Most Populous State (2014)*, California and New York were 1st and 4th respectively in population size and, not surprisingly, led the way in number of due process decisions and one-on-one aides provided. In contrast, Texas, Florida, and Illinois (2nd, 3rd, and 5th in population respectively) were among

the lowest in total number of applicable due process hearings and in one-on-one aides provided. In fact, Texas and Florida together had only six due process hearings regarding one-on-one aides and, in our findings related to the due process hearings, only provided three one-on-one aides.

These findings raised the following questions. Why are the number of due process hearings so low in these states compared to the high levels of hearings related of one-on-one aides in other states? Is the provision of a one-on-one aide so common in these states that there is no reason for parents to challenge the supports provided? Or is the opposite the case—do these states simply not provide one-on-one aides and the parents in these states simply do not challenge these decisions?

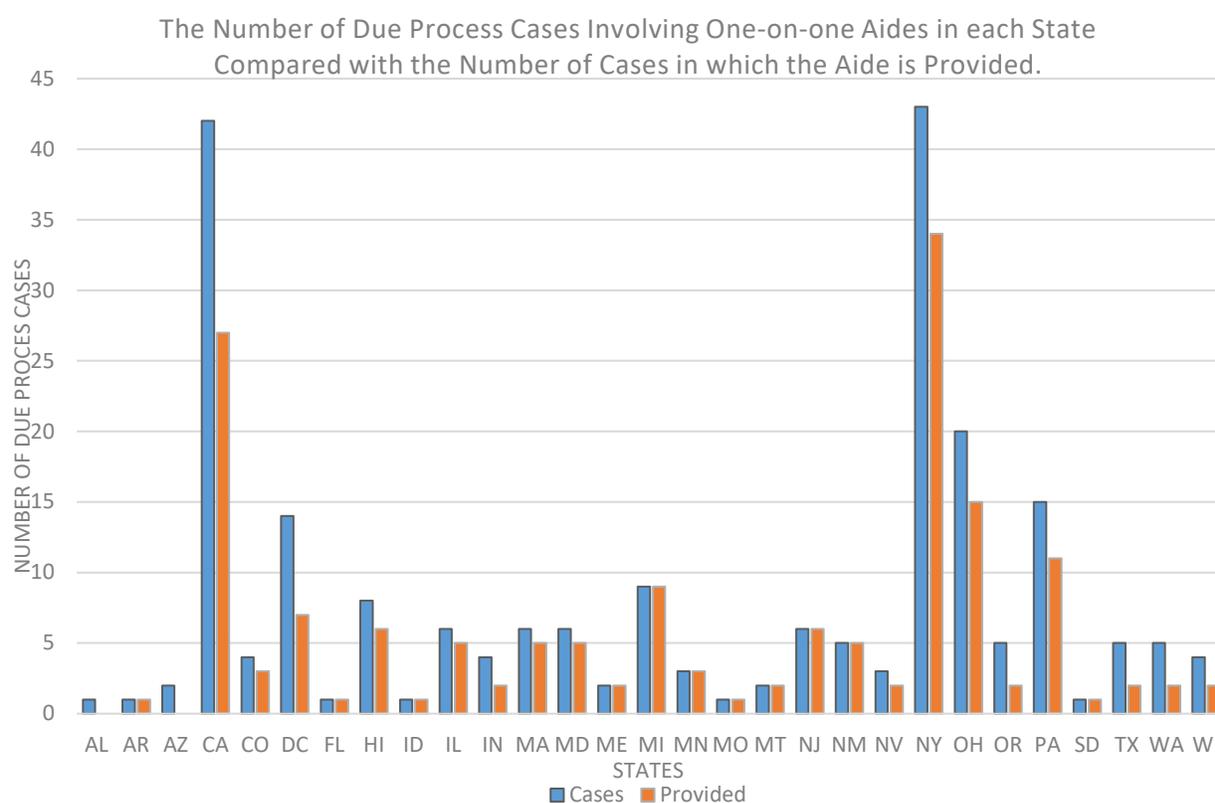


Figure 1. Due process hearings and one-on-one aides by state. The figure contains information from our study indicating the number of due process decisions related to one-on-one aides in each state and the number of decisions that provided a one-on-one aide in each state. Only the states with due process hearings pertaining to the provision of one-on-one aides in 2014 and 2015 are included.

Table 5

Most Populous States in 2014

Rank	State	Population
1	California	38,802,500
2	Texas	26,956,958
3	Florida	19,893,297
4	New York	19,746,227
5	Illinois	12,880,580
6	Pennsylvania	12,787,209
7	Ohio	11,594,163
8	Georgia	10,097,343
9	North Carolina	9,943,964
10	Michigan	9,909,877

Note. Table adapted from *Florida Passes New York to Become the Nation's Third Most Populous State, Census Bureau Reports*. (2014).

Another key factor to consider in this state-by-state analysis is the issue of per pupil expenditure. Maciag (2016) demonstrated that Florida and Texas were 42nd and 44th in the nation in overall education expenditures in 2014 (see Figure 2). This survey reveals that in these very large states, education is not well funded in relation to other states. Figure 3 places the states in descending order according to the work of Maciag (2016). This perspective reinforces the idea that a possible pattern may exist between a state's per pupil expenditure and a state's willingness to provide expensive one-on-one aides for students.

Other questions surfaced in the cross referencing of the top ten most populous states. Pennsylvania, Ohio, and Michigan (6th, 7th, and 10th most populous states) demonstrated comparable results given their large populations and large numbers of due process decisions and one-on-one aides provided. These populous states have high numbers of both due process decisions and one-on-one aides provided. The states noticeably absent from the decisions in our study (see Figure 1 or 3), yet having large populations, are Georgia and North Carolina. These states did not have a single due process hearing regarding the provision of a one-on-one aide.

Once again, further research is needed to understand why many of the states have a lack of applicable due process hearings. Again, the per pupil spending report for 2014 provided additional insight as Georgia, 8th most populous, was 38th in per pupil spending and North Carolina, 9th most populous, was 45th in per pupil spending (Maciag, 2016). These populous states' lesser willingness or ability to fund education in general may present an interesting connection with the low number of due process hearings and low number of one-on-one aides provided.

Provision of Different Types of Aides by Disability

Figure 4 provides a breakdown of the due process hearing decisions by both type of aide requested and by disability. In the two-year timeframe, 79 decisions existed in which a request for a one-on-one aide was brought to a hearing for a student with autism. These decisions account for 35% of all the due process hearing decisions in the sample. According to the US Department of Education, in 2013–14, the percentage of students with the autism classification nationally was 8.3% (US Department of Education, 2015). The fact that 35% of due process hearings regarding one-on-one aides were for students with autism reveals a nationwide abnormality in the volume of decisions compared to the percentage of students served with this disability. More than one-third of all decisions regarding one-on-one aides in this two-year sample were for students with autism. The volume of decisions regarding one-on-one aides for students with autism definitely stands out, as does the fact that in 57 of the 79 decisions a behavior aide was the type of aide requested.

Two questions arise from these data. First, are there so many due process hearings about the provision of one-on-one aides because IEP teams more frequently contest the provision of this type of one-on-one aide for students with autism? Or, second, does the pattern reflect a trend

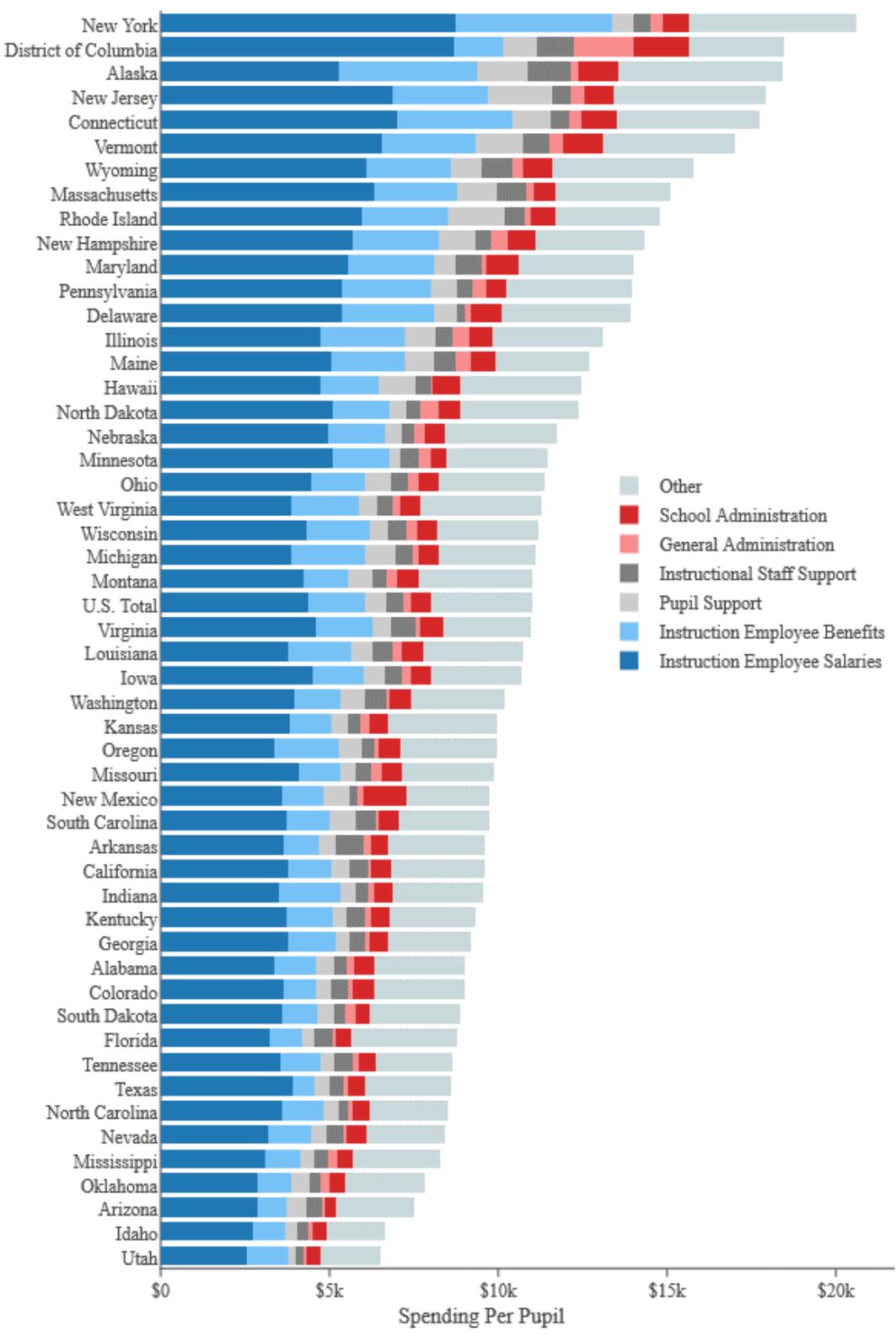


Figure 2. Per pupil spending in 2014 (Maciag, 2016).

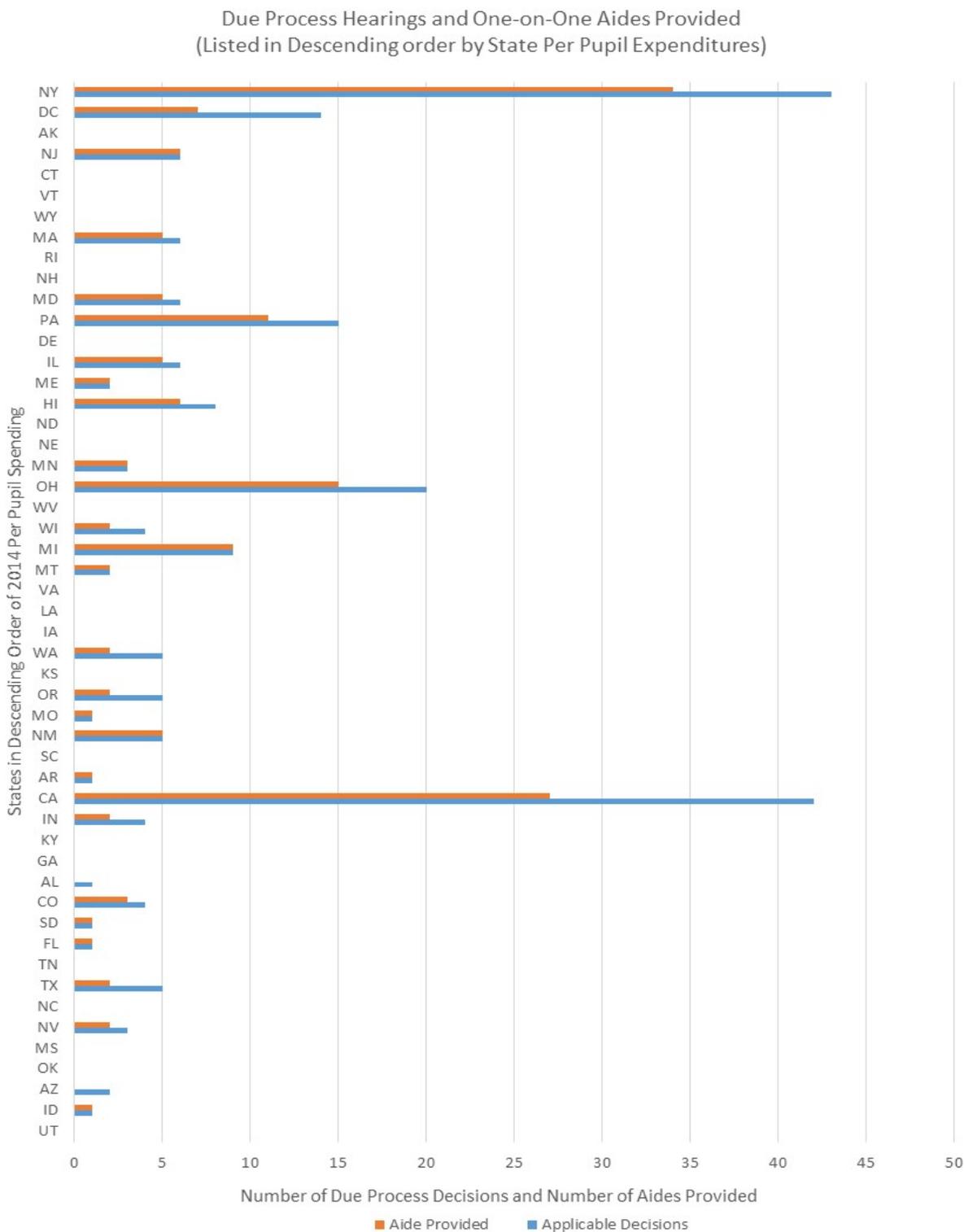


Figure 3. Due process hearing decisions and aides provided in order of 2014 state per pupil spending. The states are listed in descending order of per pupil expenditures as cited by Maciag (2016).

toward students with autism receiving the bulk of one-one-one aides? The former explanation seems more likely based on our professional experience in this field; however, our experience is incomplete as we reside and work in Utah, where one-on-one aides for students with autism are rare.

A deeper examination of these decisions, specifically investigating the provision of one-on-one aides, reveals further patterns of interest (see Figure 5). The first point that clearly stands out from the data in Figure 5 is that students with autism received one-on-one aides notably more

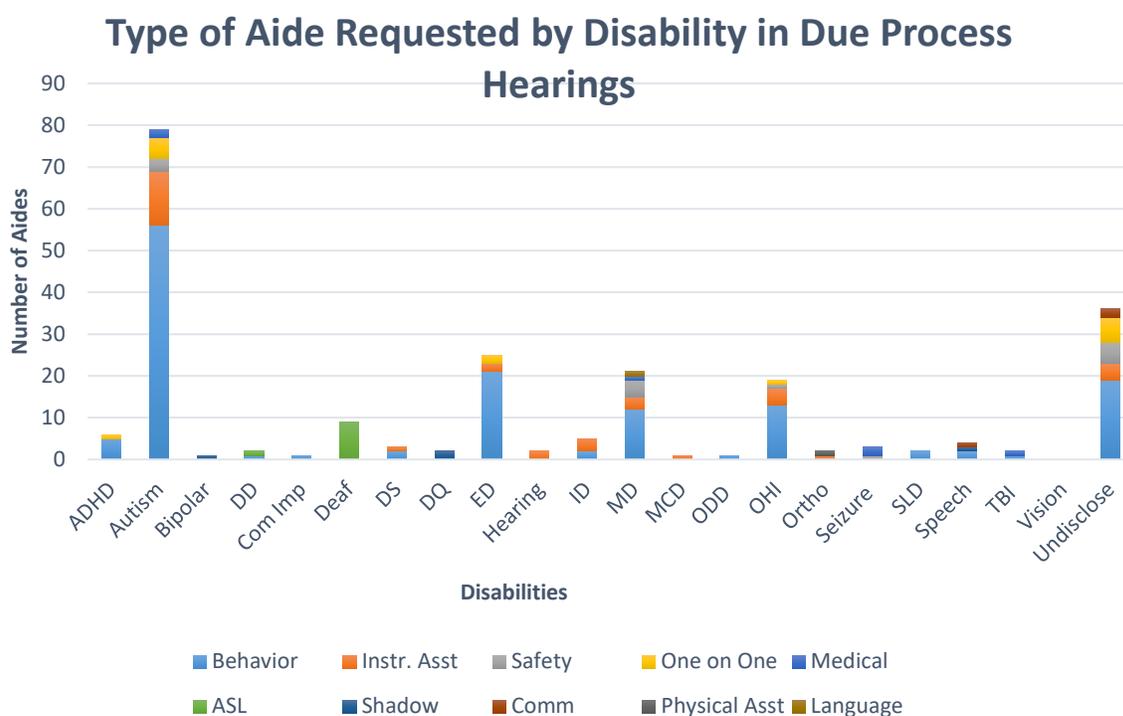


Figure 4. Type of aide requested in due process hearings listed by disability.

often than students with other disabilities in the decisions brought to due process hearings. This finding is contrary to our presuppositions. We anticipated that the results would demonstrate limited provision of one-on-one aides for behavioral support. Interestingly, it is clear that many students are currently receiving one-on-one aides for behavioral support.

Another interesting point relates to one-on-one support for students who are deaf. The dataset contained nine decisions seeking a one-on-one ASL interpreter and, in all nine decisions, the student received a one-on-one aide. This finding was not surprising. The low number of due process hearings in our dataset related to students with the disability of deafness may reflect the pattern that this support is accepted and commonly provided by IEP teams. This pattern could give credence to the idea of an inverse relationship between accepted practice and decisions brought to due process hearings regarding the high number of decisions for students with autism.

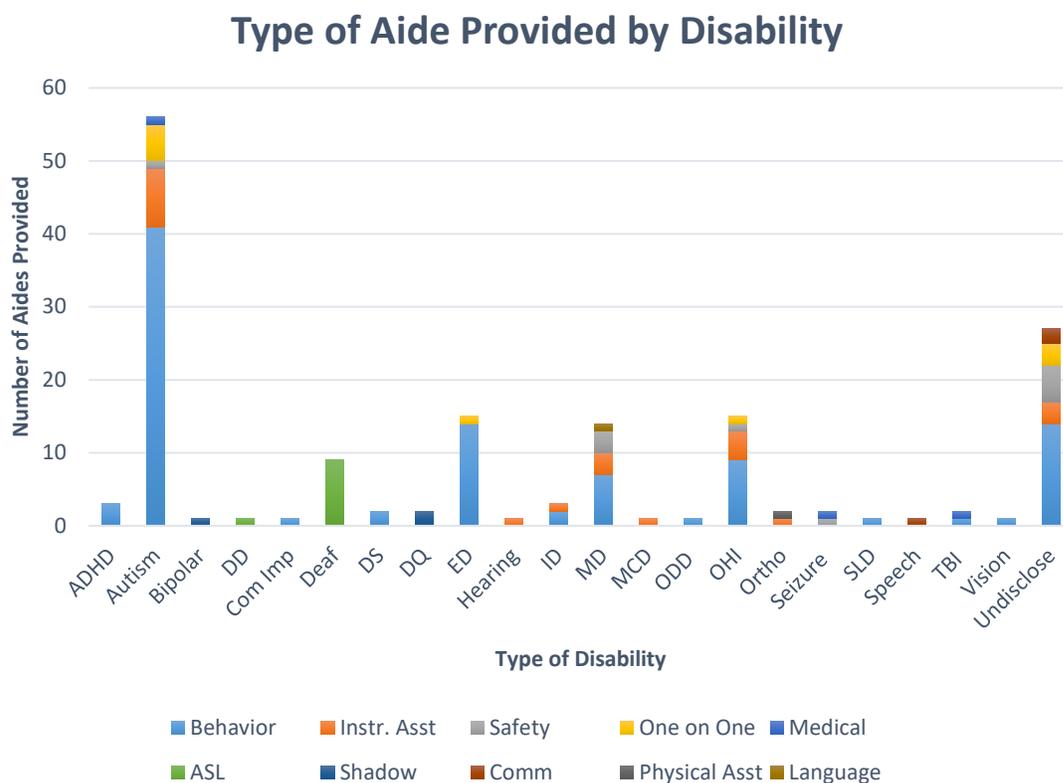


Figure 5. Type of aide that was provided listed by disability.

Tables 6 and 7 illustrate the provision percentages for one-on-one aides by the type of aide support. The relatively low number of decisions in our study devalues the percentages in areas of medical, shadow, communication, physical assistance, and language. These areas had fewer than seven decisions in our window. The interesting patterns here are that 100% of ASL

one-on-one needs were met, 79% of one-on-one aides for safety purposes were provided, 70% of overall decisions needing behavioral support received a one-on-one aide for that purpose, and 65% of instructional assistants sought after were provided.

Table 6

Provision Rates for One-on-One Aides by Type of Aide

Type of aide	ASL	Behavior	Comm.	Instr. Asst.	Language	Medical	Phys. Asst.	Safety	Shadow	Unsp.
Decisions	10	138	3	34	1	6	1	14	4	15
Provided	10	97	3	22	1	3	1	11	3	10
%	100%	70%	100%	65%	100%	50%	100%	79%	75%	67%

Note. Percentage of provided aides separated by type of job responsibilities. Row descriptors: ASL = sign language interpreter, Behavior = Behavioral, Comm. = Communication, Instr. Asst. = instructional assistant, Phys. Asst. = physical assistance, Unsp. = specific duties not listed.

Provision of One-on-one Aide as Central Issue by Disability

One of the categories explored in this study was the concept of *central issue*. All due process hearings were categorized as *central issue* decisions if the chief complaint brought to the hearing officer were specifically about the provision of a one-on-one aide in order to provide FAPE and/or place the student in the LRE. Many of the decisions in this timeframe referenced the provision of one-on-one aides, but these central issue decisions are the decisions in which the parents requested a one-on-one aide for their student, and the school or school district disputed the provision.

Table 8 represents the findings for central issue decisions sorted by disability.

Discounting the areas with too few decisions, the disabilities that stand out are autism, deafness, emotional disability, and multiple disabilities. These disabilities comprise the highest numbers in case references and the greatest number of decisions with one-on-one aides provided.

Autism represents the greatest preponderance of decisions with nearly one third of the total central issue decisions and the number of aides provided. Interestingly, roughly half (55%) of all

Table 7

Percentage of Provision Rates by Type of Aide and by Disability

Disability	ASL	Behav.	Comm	Instr. Asst.	Language	Med.	Phys. Asst.	Safety	Shadow	Unsp.
ADHD <i>n</i> =6		<i>3/5</i> 60%								0%
Autism <i>n</i> =79		<i>41/56</i> 73%		<i>8/13</i> 62%		<i>1/2</i> 50%		<i>1/3</i> 33%		<i>5/5</i> 100%
Bipolar <i>n</i> =1									<i>1/1</i> 100%	
Developmental <i>n</i> =2	<i>1/1</i> 100%	<i>0/1</i> 0%								
Communication <i>n</i> =1		<i>1/1</i> 100%								
Deaf <i>n</i> =9	<i>9/9</i> 100%									
Down Syndrome <i>n</i> =3		<i>2/2</i> 100%		<i>0/1</i> 0%						
DQ <i>n</i> =2									<i>2/2</i> 100%	
ED <i>n</i> =25		<i>14/21</i> 67%		0%						50%
Hearing <i>n</i> =2				50%						
ID <i>n</i> =5		<i>2/2</i> 100%		33%						
MD <i>n</i> =21		<i>7/12</i> 58%		100%	<i>1/1</i> 100%	0%		75%		
MCD <i>n</i> =1				100%						
ODD <i>n</i> =1		<i>1/1</i> 100%								
OHI <i>n</i> =19		<i>9/13</i> 69%		100%				100%		100%
Orthopedic <i>n</i> =2				<i>1/1</i> 100%			<i>1/1</i> 100%			
Seizure Disorder <i>n</i> =3						<i>1/2</i> 50%		<i>1/1</i> 100%		
SLD <i>n</i> =2		<i>1/2</i> 50%								
Speech <i>n</i> =4		<i>0/2</i> 0%	<i>1/1</i> 100%						<i>0/1</i> 0%	
TBI <i>n</i> =2		<i>1/1</i> 100%				<i>1/1</i> 100%				
Vision <i>n</i> =0										
Undisclosed <i>n</i> =36		<i>14/19</i> 74%	<i>2/2</i> 100%	<i>3/4</i> 75%				<i>5/5</i> 100%		<i>3/6</i> 50%

Note. Disabilities as listed in the hearing documents. Row descriptors: see note for Table 6, Behav. = Behavioral, Med. = Medical, Unsp. = Unspecified. Column descriptors: ADHD = Attention Deficit Hyperactivity Disorder, Communication = Communication Disorder, Developmental = Developmental Delay, DQ = Did Not Qualify, ED = Emotional Disturbance, ID = Intellectual Disability, MD = Multiple Disability, MCD = Moderate Cognitive Disability, OHI = Other Health Impaired, ODD = Oppositional Defiant Disorder, Orthopedic = Orthopedic Impairment, SLD = Specific Learning Disability, TBI = Traumatic Brain Injury. The *n* listed in the row descriptor is the total number of applicable decisions. In the breakdowns by disability, the fraction listed in italics is the number of one-on-one aides provided divided by the number of applicable decisions. This fraction was used to calculate the listed provision rate for the different disabilities in our study.

decisions in which the provision of a one-on-one aide for a student with autism was the central issue, the aide was provided. In the case of students with multiple disabilities, the provision rate in central issue decisions was much higher (62%)—of the 13 decisions, the aide was provided eight times. In the seven central issue decisions that involved students who were deaf, the aide was provided in all decisions. In contrast, in the seven central issue decisions that involved students with an emotional disturbance classification, only three of the students received the support of a one-on-one aide.

Table 8

Decisions with One-on-one Aide as the Central Issue Sorted by Disability

Disability	Decisions	Provided	Percent
ADHD	4	2	50%
Autism	33	18	55%
Bipolar	0	0	0%
Developmental Delay (DD)	1	0	0%
Communication Impairment	0	0	0%
Deafness	7	7	100%
Down Syndrome (DS)	3	2	67%
Did Not Qualify (DQ)	0	0	0%
Emotional Disturbance (ED)	7	3	43%
Hearing Impairment	0	0	0%
Intellectual Disability (ID)	4	2	50%
Multiple Disability (MD)	13	8	62%
Moderate Cognitive Disability (MCD)	0	0	0%
Oppositional Defiant Disorder (ODD)	1	1	100%
Other Health Impairment (OHI)	5	3	60%
Orthopedic impairment	1	1	100%
Seizure Disorder	0	0	0%
Specific Learning Disability (SLD)	0	0	0%
Speech	3	1	33%
Traumatic Brain Injury (TBI)	3	2	67%
Visual Impairment	1	1	100%
Undisclosed	17	10	59%
Total	102	62	61%

Note. Disability names as listed in the due process hearing documents.

Table 8 highlights the question of why ASL interpreters were provided 100% of the time, while behavioral aides were only provided in 55% of decisions for students with autism and in 43% of decisions for students with emotional disturbance. It is notable in our findings that the physically visible disabilities, such as blindness, deafness, and orthopedic impairment, received less opposition from IEP teams for the provision of one-on-one aides while less visible disabilities, such as autism and emotional disturbance, faced greater opposition in receiving one-on-one aides.

Provision of One-on-one Aide in Decisions of LRE and FAPE

Leaving the central issue topic another finding in data resulted from a review of the decisions, this time through the lenses of LRE and FAPE. In each due process hearing written decision, the IHO specified the type of complaint that was the basis for the hearing or the legal grounds on which the complaint was based. A denial of FAPE was the basis of all the due process hearings. Our sample contained 76 decisions that cited denial of LRE as their complaint. At the beginning of all due process hearing decisions, the complainant's concerns are enumerated. If the complainant is challenging the class or service placement of the student, they will indicate that the school district has violated the LRE mandate. A confounding variable arose in that there was significant overlap among 70 decisions that cited both the denial of LRE and FAPE. For the purposes of this study with the decisions of dual complaints, these decisions were counted as *both* LRE and FAPE decisions.

Data for LRE decisions (see Table 9) revealed a pattern for provision of aides to 29 of the 76 LRE hearings involving students with autism. Of the 76 decisions, 29 (38%) were challenges to parent requests for a one-on-one aide to serve their students in settings they deemed less restrictive than the placement made by the IEP team. Hearing decisions provided the one-on-one

aide 62% of the time. Emotional disturbance and multiple disabilities rounded out the other disabilities with substantial provisions when caseloads were composed of more than six decisions. These disabilities all fell into similar patterns of provision as mentioned earlier.

Table 9

Breakdown of FAPE and LRE Decisions

Disability	FAPE Decisions	Provided	% FAPE Provided	LRE Decisions	Provided	% LRE provided
ADHD	6	3	50%	2	1	50%
Autism	79	58	73%	29	18	62%
Bipolar	1	1	100%	0	0	
DD	2	1	50%	1	0	0%
Com Imp	1	1	100%			
Deaf	9	9	100%	2	2	100%
DS	3	2	67%	1	1	100%
DQ	2	2	100%			
ED	24	15	63%	8	6	75%
Hearing	2	1	50%	1	0	0%
ID	5	3	60%	5	3	60%
MD	21	13	65%	7	5	71%
MCD	1	1	100%			
ODD	1	1	100%			
OHI	20	14	74%	4	2	50%
Ortho	2	2	100%			
Seizure	3	3	100%			
SLD	2	1	50%			
Speech	3	1	33%	1	0	0%
TBI	2	2	100%	1	1	100%
Vision	1	1	100%			
Undisclosed	36	27	75%	14	11	79%
Total	225	159	72%	76	50	66%

Note. Column descriptors: ADHD = Attention Deficit Hyperactivity Disorder, Communication= Communication Disorder, Developmental = Developmental Delay, DQ = Did Not Qualify, ED = Emotional Disturbance, ID = Intellectual Disability, MD =Multiple Disability, MCD = Moderate Cognitive Disability, OHI = Other Health Impaired, ODD = Oppositional Defiant Disorder, Orthopedic = Orthopedic Impairment, SLD = Specific Learning Disability, TBI = Traumatic Brain Injury.

aides with greater frequency than expected, especially when it was the central issue of the

Emotional disturbance had 75% provision rate, and multiple disabilities had a 71% provision rate. Clearly, when decisions were taken to due process hearings, IHOs decided for one-on-one decision and the placement in the LRE was challenged.

Analyzing the results of FAPE decisions (see Table 9) revealed that FAPE was the central issue in all of the 225 decisions. All of the decisions in the dataset specifically cite FAPE as their reason for seeking a due process hearing. Given that this body of FAPE decisions is identical to the complete body of decisions, the analysis and patterns for FAPE decisions is consistent with the previous findings.

Comparison of the FAPE and LRE decisions by provision rates demonstrated further patterns of interest (see Table 9). Overall, FAPE decisions yielded a 72% provision rate while LRE decisions manifested a 66% provision rate. The parity between LRE provision rate and FAPE provision rate suggests that the outcome of the decision does not vary distinctly by the type of complaint used to file the hearing.

Discussion

These findings present opportunities for further research for both researchers and practitioners on a school, district, and state level. There is still much to examine as it related to the topic of the provision of one-on-one aides. The decisions made in the due process hearings analyzed in this study have shown discrepancies in how the needs of students with disabilities are being met through the IEP. There are patterns that emerged in how IEP teams and due process decisions meet those needs that appear to be less individualized than the grand ideals espoused in IDEIA. It certainly caused one to reflect on the processes and options that are considered as IEP teams look to provide services.

Are options for potential supplementary aids and services to help students with disabilities limited based on type of disability or on financial circumstances? One would hope that is not the case. Inclusion done correctly has demonstrated to be extremely helpful for students with disabilities (King, 1994; Klingner, Vaughn, Hughes, Schumm, & Elbaum, 1998;

Levin, 1989, 1993; Rea, McLaughlin, & Walther-Thomas, 2002; Johnson, 2007; Hawkins, 2011). The provision of one-on-one aides can make inclusion a possibility for students with disabilities and should be considered by IEP teams that they look to help students with disabilities be educated in regular education settings to the maximum extent appropriate with appropriate aids and services (Yell, 1995b).

Limitations

This research intended to identify patterns and draw broad conclusions to this topic of one-on-one aides. As there is little research thus far looking at due process hearings, there were several limiting factors as we pioneered this effort. As already mentioned in the methods section, sample size posed a challenge. It was difficult to determine if a two-year window is an appropriate sampling to determine greater patterns regarding the provision of one-on-one aides. We were limited in what due process hearings were available in the database. There are inherent challenges with using due process hearings; we had to resist the tendency with this data to make sweeping statements about special education services that extend beyond the due process hearings found in our two year sample.

One of the other limiting factors in reviewing our findings was defining the meaning of low numbers of due process hearings and low provision rates for one-on-one aides. We had to ask if the number of decisions was low because one-on-one aides were provided in that state or for that disability with such great frequency that parents did not need to seek due process or if the low numbers resulted from such low provision rate for one-on-one aides that parents just accepted that a one-on-one aide would not be provided and did not pursue due process. The answers to these questions cannot be determined through the data that we have.

The other limitation that needs to be acknowledged is potential for bias in this work. All researchers have inherent biases, and as mentioned earlier my son is a student with behavioral disabilities. I am also a school administrator with many years of trying to meet individualized needs of students with disabilities. We have attempted to balance this perspective through continual feedback from members of the research team.

Implications for practitioners. These findings indicate that some students with disabilities across the country are receiving support from one-on-one aides. While in some states one-on-one aides are rarely utilized and, as Copenhaver (2006) illustrated, often interpreted as a more restrictive environment than a pull-out class, the use of one-on-one aides is a viable and effective option that must be considered by IEP teams.

The differences of provision and understanding state to state is remarkable. A reevaluation is needed as to what benefits this type of support provides as well as where the placement of one-on-one aides falls on the continuum of services. This consideration must extend to not just those students with physical disabilities that are widely recognized, but also to those students who are challenged in a general education setting without behavioral support. IEP teams need to evaluate the needs to determine if a student with emotional disturbance or autism could access the grade level curriculum and regular education setting with a one-on-one aide for behavioral purposes. In our findings, IHOs provided students with this support more than 70% of the time. Our recommendation would be that this evaluation should be made prior to considering the less expensive pull-out specialty class.

Our findings can also serve a guide for school and district practitioners as they determine if the IEP team will provide a one-on-one aide for students. It is clear that these one-on-one aides are being provided by IHOs in due process hearings with great frequency. IEP teams and district

administrators should consider these findings and seriously consider the provision of the one-on-one aide if this level of support best meets the needs of the students.

Implications for future research. Further studies into the differences between states regarding the provision of one-on-one aides for different disabilities are needed. This connection between per pupil spending and the provision of one-on-one aides would also be an important topic for further study. Additional research is needed to determine the reasons why a high number of autism decisions go to due process. A comparison of the results of this study with the overall percentages of students who qualify for services due to autism could be revealing as well. The percentage of decisions requesting one-on-one aides for students with autism is not consistent with the overall percentage of students with autism. A question for further study is why are there so many due process hearings about a contested one-on-one aide for students with autism?

The pattern of one-on-one provision for students who are deaf compared to less visible disabilities is worthy of further study. A review of data beyond the due process hearings would be most helpful in this area to discover if those students with more visible disabilities receive more appropriate services than those students with less visible disabilities. This would have serious implications for IEP teams in creating programs and providing more appropriate aids and services for all students regardless of type of disability.

There is much to be learned from this underutilized database of due process hearings that could help educators understand how the provision of one-on-one aides can assist students with disabilities to be successful. Relatively unexplored in this research study was the category of school level. More research could be done comparing and looking for the patterns in the provision of one-on-one aides in the elementary, middle, and high school settings.

Conclusions

At the beginning of this study, very little research about the decisions in the due process hearing database and very little about the issue of one-on-one aide provision was discoverable. The fundamental premise of this study was that parents of students with behavior disabilities are often in conflict with IEP teams regarding the provision of services, especially when one-on-one classroom aides are needed for the student to succeed.

The critical finding of this data is that autism is the most represented disability in the due process hearings seeking one-on-one aides. The findings from the due process hearing decisions revealed that one-on-one aides for students with a wide variety of disabilities are being provided with greater frequency than anticipated and that, specifically, behavioral aides are being provided for students with autism. Decisions regarding one-on-one aides for students with disabilities such as hearing impairment have high provision rates, while other disabilities like autism and emotional disturbance do not see the same rate of provision. There are significant differences between the states in number of decisions that reach due process hearings and in the number of one-on-one aides provided.

Based on the interpretations of the continuum of services in our state as the foundation of this topic, the initial expectation was to find that very few one-on-one aides were being provided across the country for students with disabilities other than those commonly provided for students who are deaf. Given my personal connection with this topic, I was interested to know specifically about the provision of one-on-one aides for students with autism. We expected very low numbers of provided aides and anticipated finding an inequitable provision rate for the differing disabilities. Our findings, however, indicate that many states are in fact providing one-

on-one aides for many disabilities such as autism, emotional disturbance, multiple disabilities, and other health impairments.

Significant patterns emerged in this study regarding the differences between states and the willingness of the states to provide one-on-one aides. The comparisons of funding levels and our findings provide fertile ground for further research. Many states are providing one-on-one aides and many are not. Many of our preconceived notions about the unwillingness to provide one-on-one aides are substantiated by our findings in some states, but not in others. It is difficult to tell whether the small numbers of decisions regarding aides in some of the states is due to high or low provision rates statewide. Perhaps this is the reason for the confusing interpretation of LRE with a one-on-one aide being considered a more restrictive placement than a pull-out class emphasized in Utah. Our research does not provide the data needed to explore this topic further but could serve as a starting point for further research.

ASL interpreters are provided 100% of the time in this study while behavioral aides are only provided 53% of the time for students with autism and 43% of the time for students with emotional disturbance. These findings suggest physically visible disabilities receive one-on-one aides more often than less visible disabilities like autism and emotional disturbance.

This study reveals patterns regarding due process hearing decisions and the provision of one-on-one aides for students with disabilities. The goal of this study was to explore the database, find patterns, and further investigation into these topics to open conversations and to improve special education services and programming for students with disabilities.

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APPENDIX A: Extended Literature Review

As the focus on student achievement has become an increasingly significant measure of school success, it is clear that the current programming of special education is not successful. Students frequently qualify for special education services because they are delayed in their development or they have fallen so far behind that teachers do not know how to intervene. School teams qualify students for special education services to provide students with the necessary support to be successful. Often school teams comment that the goal is to provide students with the support to *catch back up*. This being the case, a good measure of success might be the declassification rate of students who have “caught back up” and can now succeed without special education services. Declassification rates are dismal at best, ranging from 4% to 17% depending on the disabilities and length of time in the program (SEELS, 2005).

Graduation rates are the latest measure being utilized by many legislative agencies to measure success in schools. A look at students with disabilities and graduation rates reveals another failing of the current system. The rate of graduation for students with disabilities lags behind overall graduation rates significantly. In Utah in 2014, the statewide graduation rate was 83% while only 67% of students with disabilities earned their high school diploma. This gap exists as wide or wider across the country. Levin (1993) points out that these kinds of graduation results “will have important economic ramifications in at least three areas: (1) quality of entry-level labor force, (2) the cost and quality of higher education; and (3) the cost of public services” (p. 13).

Despite all the accommodations they provide, Individualized Education Programs (IEPs) and other special education services are not closing the gap. In fact, it seems that educators are unintentionally creating a lower track of education in which educators classify, sort, and

perpetuate the existing achievement gap. In many schools, classes are created that educational reformers Buffum and Mattos refer to as *phantom classes* (2009). This term refers to resource classes in which students are taught at a slower pace and with a lower level of curriculum in place of grade level instruction. Schools then act surprised that the achievement gap is not closing. These students need both the grade level instruction and the special education support.

Henry Levin (1993) illustrates this point with his accelerated schools research regarding at-risk students. While this study is not specific to special education students, his findings have a direct connection to the topic:

That research found that at-risk students started behind other students and lagged farther behind the educational mainstream the longer they were in school . . . Such students were placed into less demanding instructional settings—either by pulling them out of their regular classrooms or by adapting the classroom to their needs—and offering remedial or compensatory educational services. While this approach appears to be both rational and compassionate, it has exactly the opposite consequences. (p. 24)

Levin's study (1993) revealed the same concerns for special education students. His findings assert that a new approach is needed with the support structures in place to elevate the achievement of all students to the mainstream level.

This section reviews the literature behind the development of special education policy and, specifically, legal decisions that define the implementation of this policy. The evolution of special education law from legislative action, court decisions, and due process hearing decisions will be explored as it pertains specifically to the provision of one-on-one aides to allow for the placement of students with disabilities in inclusion settings. The literature behind the topics of due process hearings and inclusions will also be reviewed.

History and Purpose of Special Education

Worthy of the reader's consideration are two questions: What was the original goal of the special education policy? Is the policy meeting that goal? To answer these questions, we must look to the origins of special education policy. Most people would reference 1975 and the passing of Education for All Handicapped Children Act (EAHCA) Pub. L. No. 94-142 (amended six times and renamed in 1990 as the Individuals with Disabilities Education Act [IDEA] and most recently reauthorized in 2004 as the Individuals with Disabilities Education Improvement Act [IDEIA]) as the root of such policy (Alexander & Alexander, 2012). However, the policies and programs of Franklin D. Roosevelt's New Deal serve as a more accurate starting point for America's concern for its disabled citizens. "To a great extent, America's efforts to serve persons with disabilities has been forged by a combination of war and industrialization" (Tomasevski, 2005, p. 126). While the benefits to those with disabilities were not related per se to the educational system, the New Deal policies were the proverbial foot in the door that prepared the nation to accept other life-altering, equity-based policies.

Often overlooked by American researchers, the Universal Declaration of Rights G.A. Res. 217A (1948) at 7 adopted by the United Nations is a noteworthy document that clearly delineates that "[e]veryone has the right to education . . . Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms." The standard set by the UN in 1948 likely weighed heavily on the political atmosphere in the United States as the country moved into both the civil rights and disability rights movements.

More specific educational-based policies centered on the issue of equity were created by the federal government that paved the way for the creation of special education. Brown and

Cooper (2011) mention several bedrock educational policies that laid the foundation for this evolution: *Brown v. Board of Education of Topeka* 347 U.S. 483 (1954), the Elementary and Secondary Education Act (ESEA) Pub. L. No. 89-10 in 1965, and the Education for All Handicapped Children Act (EAHCA) Pub. L. No. 94-142 in 1975.

The Supreme Court ruling in *Brown v. Board of Education* in 1954 ended racial segregation in schools, declaring it unconstitutional, a 14th amendment violation. Brown and Cooper (2011) summarized the event: “This decision went off like a skyrocket, emerging from and supporting the national civil rights movement and similar efforts to desegregate public and private services and institutions” (p. 146). Palmaffy (2011) indicates that advocates of civil rights “viewed the court’s striking down of racial segregation as a clear sign that the public schools’ segregation and exclusion of children with disabilities were also unconstitutional” (p. 24). Palmaffy (2011) continues to illustrate the far-reaching effects on education policy by explaining that this ruling increased the momentum behind the grassroots movements in 13 states. By 1968, these states had official state statutes that recognized and provided for students with learning disabilities. “The politics behind the War of Poverty, of which ESEA was part, flowed from the pinnacle of political power—part of the emerging interest in education by the executive branch of the federal government” (Brown & Cooper, 2011, p. 149). The Elementary and Secondary Act was “passed first in 1965 to narrow the gap between rich and poor, black and white students following the civil rights movement” (Cooper, Fusarelli, & Randall, 2004, p. 298). This legislation, endorsed and advocated for by President Lyndon Johnson, a former teacher, created more emphasis in the policies of equity in education and established yet a larger opening for the special education policy entrepreneurs. Civil rights advocates continued to champion the cause

of Americans with disabilities, and in 1966 Congress amended ESEA to include funding for children with disabilities (Palmaffy, 2011).

With this opportunistic stage set, President Gerald Ford signed into law on November 29, 1975, the policy that would change educational access for students with disabilities (Alexander & Alexander, 2012). Public Law 94-142 (EAHCA) established the mandates that all students with disabilities receive a free and appropriate public education in the least restrictive environment. Nichols (2016) summarized EAHCA well:

EAHCA had six core tenets. They are that students with disabilities have the right to (1) a free and appropriate public education (FAPE), (2) an individualized education plan (IEP), (3) special education services, (4) related services, (5) due process, and (6) a least restrictive environment (LRE). This law has been reauthorized six times, with a summary of changes for each authorization included in Table 1. This law mandates the education of all students in their least restrictive environment (LRE). (p. 45)

The law also stipulates that each student who qualifies for special education services must have an individualized education plan that guides the support and service that he/she receives (Palmaffy, 2011).

Board of Ed. of Hendrick Hudson Central School Dist. v. Rowley, 458 U. S. 176 (1982) is the only Supreme Court decision to define FAPE. The Supreme Court ruled that FAPE can be provided for students without maximizing the potential for each child. The issue was related to the provision of a one-on-one ASL interpreter for a student who was deaf. This decision opened the door for more conversation regarding what FAPE means. Recently in the case of Endrew F. v. Douglas County School District RE-1, 580 U.S. (2017), the court expanded that definition of

FAPE to specify that students with disabilities should have a IEP that allows them to make appropriate progress given their individual circumstances.

Special education law as established by the IDEIA was created for one sole purpose: to ensure compliance, and specifically ensure that all students with disabilities were permitted to enroll and attend public schools. The emphasis of the law was clearly to establish legislation to mandate that public schools would open their doors to students with disabilities. Prior to the above-mentioned federal involvement in special education policy, most of these students were simply excluded from schools. The laws serve as the foundation for special education to protect students with disabilities from discrimination and guarantee these students the right to a free and appropriate public education (FAPE). In accordance with these original goals, special education policy has been implemented with resounding success. No public school would dare deny access to any student with disabilities. By this measure, these policies have been successful. All students with disabilities throughout this country today are still guaranteed access to a free and appropriate public education and are being educated in public schools.

Evolution of Special Education Law

The bigger issue in special education policy is the standard used to measure success. “To establish the standards, one has to know the real goals of the organization” (Perrow, 1986, p. 10). Over the last 15 years, stakeholder expectations have changed in public education with a greater emphasis on not just access to educational opportunities, but also measuring student achievement.

Much of the early empirical work on human capital concentrated on the role of school attainment—that is, the quantity of schooling. This focus was natural. The revolution in the United States during the 20th century was universal schooling. Moreover, quantity of

schooling is easily measured, and long-term data on years attained are readily available.

Today, however, policy concerns revolve around quality issues much more than quantity issues. (Marzano & Costa, 1988, p. 13)

Naturally these policy concerns transfer over to special education policy as well. Do the policies that now exist support these goals, or are they hindering them? Are we providing all students a quality educational experience or a quantity (years) educational experience?

Policy makers have recognized the evolving focus in education and have issued many amendments and revisions to EAHCA. In fact, there have been six iterations, specifically in 1978, 1983, 1986, 1990, 1997, and 2004, with the name changing to the Individuals with Disabilities Education Act (IDEA) in 1990 and the amendment in 2004 to add the term *Improvement*, rendering the title to the Individuals with Disabilities Education Improvement Act (IDEIA) (Alexander & Alexander, 2012). These policy changes by the legislative branch are not, however, the only modifications that have been necessary throughout the implementation process.

Implementation of the policy revisions is left to the individual states to enact and report back. The states then create their rules and regulations, which they pass along to the districts, who then have their schools, and specifically the teachers, put them into practice. The distance between policy makers to practitioners causes some aspects of the regulations to be lost in translation. “Once enacted, laws do not go into effect by themselves. Policies, like laws, are neither self-explanatory nor self-executing. Policies, no matter how well designed, must be implemented successfully to achieve their intended effects” (Cooper et al., 2004, pp. 83–84).

Implementation of special education policy is no exception. With so many interpretation stages in this process before final implementation, and with so many states interpreting the law

and creating their own rules and regulations, it is no wonder that special education policies differ from state to state and district to district. In a situation where compliance to a federal law is reliant on many separate organizations and individuals to carry out a particular law, there can be no surprise that the system is highly regulative and compliance based.

First and foremost, the judicial branch plays a significant role in helping to both more clearly define the policies and correct the policies that have been implemented poorly. For clearer definitions of special education policy, the best recourse is found in court decisions at all levels. The Supreme Court has ruled in few instances on matters to interpret the IDEIA.

More frequently, the lower courts are making decisions and helping to better clarify the policies. For states or districts who are failing to comply with special education policies, the courts serve as a method to coerce or prod them into compliance.

The most commonly used method of governance in special education policy is, however, economics. Special education funding makes up a small percentage of a district's budget, but it is large enough to cause significant problems if such funding were withheld. The federal policy requires states to create accountability measures for compliance purposes. In most states these measures are more often than not found in the shape of external audits. For a special education teacher or team, the thought of a special education audit evokes feelings akin to feelings in response to an IRS audit.

The lesser-considered method of fiscal governance is the threat of lawsuit. Failure to comply with special education policy can result in due process hearings or actual civil rights lawsuits. In the very litigious world in which we live, facing a potential loss of funds due to a due process or an Office of Civil Rights ruling can be a strong motivator to be fully compliant with special education policy.

Due Process

To make sure that a free and appropriate education (FAPE) is provided for all students with disabilities, the IDEIA established procedural safeguards. These safeguards protect the rights of the students with disabilities and their parents/guardians. The IDEIA requires the school district to make sure parents are informed regarding their student's education and to involve them in the decision-making processes, specifically in their student's progress and evaluation as well as in placement decisions. These procedural safeguards also specifically guarantee students with disabilities and their parents impartial due process hearings as means for the parents to challenge a school district's decisions or actions (Lanigan, Audette, Dreier, & Kobersy, 2001). When a parent meets with the representative for the local education agency (LEA) or the IEP team for an IEP meeting, a three-year evaluation, or a data review, the LEA is required to review these procedural safeguards with the parents/guardians of the student with disabilities (Lanigan et al., 2001). The primary purpose of a hearing is to arrive at a decision regarding the educational programming of the student with disabilities without the need for court action (Candler & Henderson, 1984).

Herein lies the dichotomy—structure and control systems were built to ensure compliance of policy in order to create the desired positive outcome, but currently we are trying to use this highly rational and regulative structure to attain new goals of student achievement. “Your organization today is perfectly designed to get every good and bad result it gets” (Hanna, 2001, p. 182). In an effort to do the right thing and create educational equity for all children, we have created a system so highly focused on compliance that we have lost sight of the larger purpose for these policies—success for all students.

Least Restrictive Environment

Key to this issue is the appropriate placement of students with disabilities to ensure access to grade-level instruction and intervention. A student's placement in the special education world falls under the umbrella of least restrictive environment (LRE). Specifically, IEP teams make the decision on what is the least restrictive environment in which a student can receive a FAPE. The key points of the LRE mandate are twofold. First, all students with disabilities have the right to be educated with nondisabled peers. Second, when the regular education placement with the use of supplementary aids and services cannot provide a satisfactory education, the IDEIA explains that the student with disabilities may be educated in an environment other than regular education. At the point that the IEP begins discussing a different setting, the IDEIA also provides a continuum of settings, from least to most restrictive environment: Regular Classroom, Special Classes, Special Schools, Home Instruction, and Instruction in hospitals or institutions. IEP teams need to consider the setting that is most appropriate and least restrictive for the student while at the same time is educationally appropriate and allow for the greatest degree of integration (Yell, 1995a).

A one-on-one aide is a paraprofessional assigned to support specifically a single student in a regular education classroom setting. These aides play a supportive role in helping students with disabilities succeed in a classroom with their peers. They allow these students to receive grade-level instruction from regular education teachers and support from special education staff. Despite the potential for success, placement decisions are being made that are not congruent with these findings. In some states like Utah, the use of a one-on-one special education aide for students with disabilities in regular education classrooms is considered to be a more restrictive environment than a pull-out special education classroom (Copenhaver, 2006). This placement in

the continuum of special education services is not only less effective for student success, but is also a decision that is economically motivated. According the LRE of definition in IDEIA, students with disabilities should be educated in regular education settings with appropriate aids and services. Students with behavioral disabilities should be receiving the appropriate support to help them succeed in a general education system.

Inclusion

There are many terms currently used to describe the placement of students with disabilities in the regular education setting, integration, inclusion and mainstreaming being the most widely used. For the sake of my efforts, I will utilize exclusively the term *inclusion*. As special education law creates the structure and often the methods, it is appropriate to consider the decisions made in reference to LRE. While the U.S. Supreme Court has not made any rulings, there have been several U.S. Courts of Appeal decisions that are looked to for definition. From *Daniel R.R. v. State Board of Ed* 874 F.2d 1036 (1989) the court put forth the Daniel test: Can satisfactory education in regular education setting be achieved with use of supplementary aids and services? If satisfactory education cannot be provided, and the school removes the student from a regular education setting, does the school mainstream the child to the maximum extent appropriate (Yell, 1995a)?

Both *Greer v. Rome City School District* 950 F.2d 688 (1991) and *Oberti v. Board of Education* 995 F.2d 1204 (1993) used the Daniel criteria, and in both cases, the courts ruled against the schools. Major decisions by the courts found that the schools failed to consider the full continuum and aids that would have allowed student to remain in regular education settings. The court also mentioned that the schools did not attempt to modify regular class curriculum to assist the student nor did they provide adequate support services to allow the student to remain in

the regular education setting (Yell, 1995a). The key to maintaining a student in a less restrictive setting is the provision of supplementary aids and services—a key principle often overlooked by IEP teams. “Supplementary aids and services may include pre-referral interventions, consultation, behavior management plans, para-professionals, itinerant teachers, resource rooms, assistive technology, staff in-services, and any other support for the student and his or her teachers” (Yell & Katsiyannis, 2004, p. 31). It seems that most often teams look at the continuum of predetermined settings and simply pick the next option without considering supplementary aids and services to make the general education setting work. There are students who could be learning in a general education setting but who, like my son, are being taught in pull-out situations because one-on-one inclusion aides are not being utilized.

Several states, including the state of Utah, are functioning under a misleading special education placement decision that considers a one-on-one aide to be a more restrictive environment than a pull-out or specialty class (Copenhaver, 2006). This decision is not supported by Levin’s research (1993) or by federal or state rules and regulations. Given the fact that the state of Utah is 51st in per pupil expenditure, it certainly gives one reason to consider that this decision may be more based in economics than any other factor. Changes must be made. Jennifer King (1994) illustrates quite clearly that Levin’s accelerated schools method of inclusion for at-risk students is a far superior model of intervention, particularly when compared to pull-out models. The LRE decision that some states make to pull students out of their classes instead of embracing the inclusion model endorsed by Levin is misguided and does students a disservice. Students with disabilities have a right to be taught grade-level curriculum in a class with their peers.

Researchers have reviewed the polarizing topic of inclusion and appropriate placement for students with disabilities over the last thirty years. Along with Levin (1993) and King (1994), many researchers have found that inclusive environments and appropriate grade-level instruction have led to increases in student achievement. Rea, McLaughlin, and Walther-Thomas (2002) found results that were very positive for students with learning disabilities and their success in an inclusion setting: achievement of the classroom standards and grades, improved standardized test scores and pass rates, less behavior problems, and better attendance. Klingner, Hughes, Schumm, and Elbaum (1998) found that most students with learning disabilities made considerable gains in a fully inclusive setting.

There are mixed results amongst researchers regarding the benefits of inclusion. Zigmond (2004) compiled three decades of studies regarding the positive and negative results of inclusion and concluded that the setting in which the student is educated is less important than what type of instruction is happening in that setting. Fore, Hagan-Burke, Burke, Boon, and Smith (2008) conducted a similar review of inclusion studies in 2008 with similar conclusions: students may achieve in an inclusive environment as well as pull-out environments, and the setting is not the most important factor in student achievement. Students with disabilities cannot be placed into a regular education setting without support and expect to succeed. Holloway (2001) advocates for a combined model of inclusive classroom instruction with grade-level peers and a small amount of time for pull-out resource support.

The most recent research illustrates the need within effective inclusion settings for better collaboration and consultation between general education teachers and special education teachers and aides. Hawkins (2011) and Johnson (2007) each found that inclusion helped students make significant gains in both reading/language and math test scores when positive collaboration

between regular education teachers and special education teachers took place. Jameson, McDonnell, Johnson, Riesen and Polychronis (2007) found that both special education teachers and aides could effectively embed instruction into regular education classes to help students with disabilities be successful in that setting.

While these researchers present alternative findings on the results of inclusion, an increasing number of students with disabilities are being educated in inclusive general education settings (Gordon, 2006). According to the National Center of Education Statistics, 61.8% of students with disabilities in spent more the 80% of their school day in a general education setting (US Department of Education, 2015). These students need additional support to succeed in this inclusive environment.

APPENDIX B: Detailed Methods

There is limited precedent established in the area of special education law and specifically with due process hearing decisions. Charles Russo (2015) explains best the goal of this type of research: “Individuals who conduct systematic inquiry in the law can deepen their insight into their unique subject of study and can help others in their understanding of the relationship between the law and education” (p. 22).

The theoretical framework used in this study is equitable application of free and appropriate public education (FAPE). The focus of the analysis is to determine if the application of FAPE is equitable for all students with disabilities, especially with the more expensive interventions like one-on-one aides. The federal Individuals with Disabilities Education Improvement Act (IDEIA) and all Supreme Court and U.S. Court of Appeals decisions provides the legal backdrop for this issue. Russo (2015) describes the nature of legal research:

As it attempts to make sense of the ever-evolving reality known as the law, legal research employs a timeline that looks to the past, present, and future for a variety of purposes. By placing a legal dispute in perspective, researchers in education law hope not only to inform policymakers and practitioners, both in education and law, about the meaning and status of the law, but also seek to raise questions for future research. (p. 7)

The dataset for our research comes from the legally binding due process hearing decisions contained in a nationwide database called *Special Ed Connection* (n.d.). This database is an underutilized collection of due process hearings, case decisions, administrative rulings, federal statutes and regulations, federal policy and guidance, updates on legislative action and bill status on special education issues.

There are many resources available for researchers and practitioners. We recognized the value of this collection and the research that we could do by isolating due process hearing decisions. These decisions have been relatively unexplored in published research. Paramount to the early stages of the research was to formulate a research question. We wanted to understand more about one-on-one aides. Specifically we wanted to know who was receiving their support and if there were specific types of disabilities who received these one-on-one aides with greater frequency. The big question we needed to answer early on was if these due process decisions contained in the database could help us to find answers our research question.

This database has a Boolean search engine that allowed us to research this extensive and expensive collection of due process hearings online through access provided by the Howard W. Hunter Law Library. Initially, our quest began by searching for the topic of one-on-one aides to determine if the database contained enough due process decisions on this topic. These early searches produced many decisions, cases, and administrative rulings on this topic. We read many of the decisions to assess the effectiveness of the search engine and, more importantly, to see if the results could help to answer our research question. When preliminary searches provided fruitful, we began to utilize the advanced features to become more specific in the searches.

There was a learning curve in the Boolean searches of the database as we sought to isolate the due process hearings specifically from federal and state judicial decisions, Americans with Disability Act (ADA) compliance decisions, and Office of Civil Rights (OCR) letters of findings and resolution. The target population for this work consisted of due process hearings involving potential one-on-one aide support nationally in the United States. The accessible population for this study was the digitized decisions that have been uploaded in *Special Ed Connection*. These decisions are made available to the public by a team of researchers in

Washington, DC, who have gained access to these decisions via Freedom of Information Act (FOIA) requests. The only decisions that are not included in this database are those that have been sealed by IHOs per request of the school district, the parents, and/or legal counsel.

All of our data is in the public domain. There was no need to protect identities or information. With our dataset, we could not determine if due process decisions differ across various demographic characteristics. It would be naive to extrapolate that there is no specific demographic information. We recognize definite demographic possibilities involved in the parents who would seek due process decisions. Parental factors like socioeconomic status, race, ethnicity, education levels, and advocacy support all play into the decision to escalate an issue to the due process level. However, these variables could not be identified by the dataset we utilized.

The database is available online and searchable with Boolean operators. Using the Boolean operators, we conducted a search of the database to discover all decisions that mention the use of a one-on-one aide. We used multiple search terms in the Boolean operator including variations of terms for *one-on-one aides*, *one-on-one para educator*, and *one-on-one behavioral aides*.

The descriptive sample used in this research contains those decisions found as we mined the database for all decisions that involved the provision of a one-on-one aide. We broke down the search by one-year increments, and we began with four years as the initial timeframe. Table B-1 indicates the first combinations of search terms used in the Boolean search.

We anticipated that we would find a widely diversified use of special education vocabulary by each state. We had a team of professionals review the search terms and provide additional alternatives potentially missed. We expanded our search terms to ensure that no relevant decisions were overlooked. Table B-2 reflects the expansion of search terms.

Table B-1

Initial Terms Used for Boolean Search of Due Process Hearings

Exact Search Terms	2015	2014	2013	2012
1:1 aid	4	0	1	1
1:1 aide	58	69	70	64
One on one aid	8	8	3	6
One on one aide	75	70	79	81
1:1 paraeducator	0	3	0	0
1:1 para educator	1	2	1	2
One on one paraeducator	0	0	4	0
One on one para educator	1	1	6	0
One on one behavioral aide	1	2	1	0
1:1 behavioral aide	0	1	3	1
Totals	148	156	168	155

Note. All spelling options were considered to recognize the applicable alternatives.

Table B-2

Expanded Search Terms for Boolean Search of Due Process Hearings

Additional Terms	2015	2014	2013	2012
1:1 para	2	11	3	2
Shadow	16	21	20	20
SCIA*	2	0	3	2
1:1 instructional assistant	1	2	1	0
1:1 classroom assistant	0	0	0	0
One on one instructional Assistant	3	2	3	0

Note. *SCIA is an acronym for special circumstances instructional assistance

In the initial search, we discovered that only two decisions surfaced in a ten-year window tied to the search term *ASL interpreter*. We questioned the plausibility of this possible phenomenon. It seemed possible that the differential in number of the decisions was due to the lack of need to pursue such hearings given the widespread acceptability of providing one-on-one ASL interpreters. However, we wanted to investigate thoroughly this point. After refining the search terms (searching for *sign language interpreter* and *ASL specialist*) we were able to find applicable decisions to this study (Table B-3).

Table B-3

Additional Terms to Find ASL Interpreters in Boolean Search of Due Process Hearings

Search Terms	2015	2014	2013	2012
ASL interpreter	0	0	2	0
Sign Language interpreter	14	9	10	6
ASL specialist	0	0	0	0
Deaf interpreter	0	0	0	0

After further review and consultation with other researchers, we used purposive sampling to confine the dataset to those decisions identified in a two-year period, specifically the years 2014 and 2015. As little research has been done with these due process hearings, we had to feel our way through this process. We talked frequently about what would be the right size for our data set and how many years would be needed to see patterns in our findings. This two-year window created a grouping of 225 due process hearing decisions, which provided the appropriate diversity of decisions and a saturation level within the limits of this researcher's ability to analyze. This timeframe also allowed several patterns to emerge from the due process hearing decisions regarding the provision of one-on-one inclusion aides. As illustrated in Tables B-1, B-2, and B-3, we started with four possible years. As we reflected on the data, the consistency in the results helped us to feel comfortable with narrowing our timeframe to the two most recent years.

With our dataset ready to mine, we determined the characteristics or attributes that were important for each decision. For each due process hearing, there was a published decision. These decisions ranged in length from 1 to 69 pages with a total of 3,971 pages for investigation and study. We read each case and located specific information for each decision: year, state, type of disability, type of setting, type of inclusion aide, if the aide was provided, school type, LRE issue, FAPE issue, whether the one-on-one aide provision was a central issue or the pivotal issue

in the decision, and whether the parents requested a one-on-one aide. This data was compiled in an Excel spreadsheet.

Most of the categories are attributes noted by a short definitive word or phrase, like year, state, disability, setting, LRE, and FAPE. We created disability categories based exactly on those listed in the due process hearing documents. For the sake of transparency with our research, it is important to acknowledge the challenges in categorizing disability types. Not every state listed the specific IDEA classification for disability. Many decisions merely listed the actual disability of the student. For example, it has been our experience that most states classify all students with ADHD as OHI. However, in our study, several hearing documents listed that the students received services based on qualifying for special education services with the disability of ADHD and not the traditional classification of OHI. This research team felt the need for accuracy required using the specific disability listed in the hearing decisions for qualification. In the written decisions for several states like Hawaii and New York, it was common practice for the hearing officials to remove the disability of the student and the school level listed in the documents. The uploaded case files featured blank spaces where that information was located. In this case, the term *undisclosed* was used to distinguish that the disability was not listed in the written decision. Occasionally, suppositions could have been drawn from the service pattern described in the document to assume the student's type of disability, but even in those instances, the research team refrained and the term *undisclosed* was used.

There are several categories that need further description. Many types of inclusion aides exist and many different names are used by the states in these due process hearings. As we read the decisions, we specifically looked at the name used for the type of one-on-one aide provided and/or the type of responsibilities that the aide carried out and we categorized them under the

headings Behavior, Instructional Assistant, Safety, Medical, ASL, Shadow, Communication, Physical assistance, Language, and Unspecified (see Table B-4).

Table B-4

Explanation of the Type of Aides Classified in our Study

Type of Aide	Definition used to classify aide type
Behavior	Aide provides specific behavioral interventions
Instructional Assistant	Aide provides academic and organizational support and instruction
Safety	Aide ensures safety for student either from self-harm or from others
Medical	Aide provides specific medical support—nurse or trained professional
ASL	Aide provides sign language interpretation
Shadow	Aide keeps an eye on student from a distance, only intervenes in extreme circumstances
Communication	Aide helps student with speech related issues of communication
Physical Assistance	Aide provides physical support—i.e., navigating halls, changing, going to the bathroom
Language	Aide provides language translation services
Unspecified	Aide listed as one-on-one, but no specific type of responsibilities listed

Note. The majority of hearings listed the title of the aide. When a title was not listed, we utilized the tasks assigned to determine aide type.

Initially, the plan was to upload the spreadsheet as a survey into a qualitative data analysis program entitled NVivo, which would allow us to sort, categorize, and view relationships in the dataset to discover patterns in the due process decisions. We soon realized that we did not need to code the decisions with this software because we had already categorized the data into the groups to compile the results in our spreadsheet. This decision came after several months of ineffectively utilizing the program and attempting to code using that qualitative software. We started drilling down into the data by using the sorting features in Excel, and specific patterns emerged.

Russo (2015) summarized the goal of legal research when he explained, “The traditional method seeks to predict how a court will rule based on precedent” (p. 22). In the presentation of our findings we hoped to shed light to these specific patterns, and to present review of due

process hearing decisions that could allow practitioners to predict how an IHO will rule based on the precedent that we observed.

With this goal in mind, we broke our findings into different comparative categories. We considered the differences between states and looked for potential reasons why the state might have had different results. We looked at each listed disability and the number of decisions we found in the timeframe and the number of times that the IHO provided the student with a one-on-one aide. We also examined the decisions in which the chief complaint or central issue of the decision revolved around the provision of a one-on-one aide. We then went a different direction and considered whether there was a difference between decisions in which the complainant specified a denial of FAPE and the decisions in which a denial of LRE was also included by the complainant.

We determined as a team to explore specific patterns in this article: provision of one-on-one aides by state, provision of different type of aides by disability, provision of one-on-one aides as central issue by disability, and provision of one-on-one aides in decisions of LRE and FAPE. Using the data collected in these areas, we utilized produced a wide variety different graphs and figures that allowed us to explore these patterns visually. As a research team, we discussed which graphic representation provided the best visual support for our findings and those were incorporated into the dissertation.

APPENDIX C: Legal Citation

This dissertation follows APA 6th ed. 2010 guidelines. APA in its Appendix 7.1 adopts Bluebook 18th ed., 2005 for legal materials. It notes:

Legal periodicals and APA journals differ in the placement and format of references.

The main difference is that legal periodicals cite references in footnotes, whereas APA journals locate all references, including references to legal materials, in the reference list.

For most references, use APA format as described in this chapter. References to legal materials, however, which include court decisions, statutes, other legislative materials, and various secondary sources, are more useful to the reader if they provide the information in the conventional format of legal citations. . . .For more information on preparing these and other kinds of legal references, consult the latest edition of *The Bluebook: A Uniform System of Citation*. (*Bluebook*; 18th ed., 2005)

In conformity with Appendix 7.1 some legal sources in this text are cited in Bluebook style within the text instead of at the end in a reference list.

We felt a brief explanation would help those unfamiliar with Bluebook style. Court cases and public law references are listed with the citations in the text. Here are some examples with explanation for both types of references:

Daniel R.R. v. State Board of Ed 874 F.2d 1036 (1989)

In this court case example, Daniel RR and the State Board of Ed are the parties involved in the case. This case can be found in volume 874 of the 2d series of Federal Reporter, beginning on page 1036. The case was decided in 1989.

Individuals with Disabilities Education Act (IDEA) Pub. L. No. 108-446

In this public law example, the name of the law is the Individuals with Disabilities Education Act (IDEA) and it is a public law from the 108th Congress, and the actual law number is 446.

In the case of a direct quotations, please note the word *at* is used to pinpoint the exact page the information was taken from in the case or law. For example:

Daniel R.R. v. State Board of Ed 874 F.2d 1036 (1989) at 875 explained “...”

In this sample, the quote is found on page 875 of this case. This is a departure from traditional APA formatting and thus worthy of clarification.

The referencing for block quotations also needs explanation. The citation begins on the left margin and directly follows the indented block quote. Review the following example:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

IDEA Pub. L. No. 108-446 at 118 Stat. 2677.

This the law reference for IDEA on page 118 of the official records of Congress (Statutes at Large) in volume 2677.

The goal of this appendix is to support the reader less familiar with bluebook referencing. Further clarification can be found in *The Bluebook: A Uniform System of Citation*. (*Bluebook*; 18th ed., 2005).

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