



8-2020

Patterns of Provision of One on One Aides in Due Process Hearings: A National Sample

Joel T. Perkins

Michael Owens

Scott Ferrin

Gordon Gibb

Vance Randall

Follow this and additional works at: https://scholarsarchive.byu.edu/byu_elj



Part of the [Law Commons](#), and the [Special Education and Teaching Commons](#)

Recommended Citation

Perkins, Joel T.; Owens, Michael; Ferrin, Scott; Gibb, Gordon; and Randall, Vance (2020) "Patterns of Provision of One on One Aides in Due Process Hearings: A National Sample," *BYU Education & Law Journal*: Vol. 2020 : Iss. 1 , Article 4.

Available at: https://scholarsarchive.byu.edu/byu_elj/vol2020/iss1/4

This Article is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in *BYU Education & Law Journal* by an authorized editor of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Patterns of Provision of One on One Aides in Due Process Hearings: A National Sample

*Joel T. Perkins, Ed.D., Michael Owens, Ph.D., Scott Ferrin, J.D., Ed.D.,
Gordon Gibb, Ph.D., Vance Randall, Ph.D.**

INTRODUCTION

In decisions regarding services for a student classified with a disability under the Individuals with Disabilities Education Improvement Act (IDEIA),¹ one of the most impactful choices for an IEP team or local education agency is whether a student should receive a one-on-one aide to enhance the least restrictive environment. Many parents seek such services for their children, while many education agencies resist, claiming that that one-on-one aides are not appropriate for a particular student and in fact may not actually provide the least restrictive environment for the student as established under the IDEA.

This study examined patterns of legal provision or refusal of one-on-one aides when disagreements reached due process hearing level. Patterns of differences were analyzed among states and among disabilities for which aides were provided. No single clearinghouse of data compares patterns among states, but access to national due process hearing decisions enabled us to make comparisons over a year as desired. The decision to initiate a due process hearing is a parental decision, and many subjective factors enter into that decision. As a result, studying due process hearings is not an exact data point into conflict between parents and schools, because many par-

* Joel T. Perkins is currently the Principal of Skyridge High School in Lehi, Utah; Michael Owens and Vance Randall are professors in the Department of Educational Leadership and Foundations at Brigham Young University; Scott Ferrin is also a professor in Educational Leadership and Foundations, and an adjunct Professor of Law at Brigham Young University; Gordon Gibb is a retired professor in Counselling, Psychology and Special Education at Brigham Young University.

¹ Disabilities Education Improvement Act, Pub. L. No. 108-446, 118 Stat. 2647 (codified as amended in scattered sections of 10, 17, 20, 29, and 42 U.S.C.).

ents choose, for various reasons to not initiate a due process hearing, however, such hearings constitute one of the few national large scale data points available to compare service and aide provision patterns.

Provision or denial of one-on-one aides potentially impacts students' rights to be educated in the least restrictive environment (LRE), and potentially impacts what is a free and appropriate public education (FAPE) for an individual student. First, all students with disabilities have the right to be educated with nondisabled peers to the maximum extent appropriate. Second, only when the regular education placement with the use of supplementary aids and services cannot provide a satisfactory education does the IDEIA allow for a student with a disability to be educated in another environment. When a different setting is considered in an IEP, the IDEIA provides a continuum of settings from least to most restrictive: regular classroom, special classes, special schools, home instruction, and hospital or institutional instruction. To enable regular classroom placement, an IEP team may consider parents' request for a one-on-one aide if this would be the most appropriate and least restrictive for the student—educationally appropriate with the most complete integration.²

Classic court decisions have helped define factors to be considered in considering LRE. The U.S. Supreme Court has not ruled on this issue directly, but several U.S. Courts of Appeals' decisions provide precedent. From *Daniel R.R. v. State Board of Ed.*, 874 F.2d 1036 (1989), the court created the Daniel R.R. test: Can satisfactory education in a regular education setting be achieved with supplementary aids and services? If satisfactory education cannot be provided and the school removes the student from a regular classroom, does the school mainstream the child to the maximum extent appropriate?³ 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 R.R. criteria; in both cases the courts ruled that the schools had not provided adequate support services for the students to remain in regular classrooms and had not sufficiently attempted to modify the regular class curriculum to assist the students.⁴

Supplementary aids and services may make learning in the

2 Mitchell L. Yell, *The Law and Inclusion: Analysis and Commentary*, 39(2) PREVENTING YOUTH FAILURE: ALTERNATIVE EDUC. FOR CHILDREN & YOUTH 45, 45-49 (1995).

3 *Id.*

4 *Id.*

regular education environment possible for students with disabilities.⁵ These "may include pre-referral interventions, consultation, behavior management plans, paraprofessionals, itinerant teachers, resource rooms, assistive technology, staff in-services, or other . . . support for the student and his or her teachers." Such assistance ranges dramatically depending on the students' needs as well as on the specific IEP teams, school districts, and states.⁶

An abundance of research asserts that students with learning disabilities make significant academic and social improvements when taught by general education teachers with their grade-level peers in inclusive settings with appropriate support.⁷ But providing appropriate support is challenging and can be costly.⁸

A one-on-one aide is often a paraprofessional assigned to support a single student in a regular education classroom, allowing the student to receive grade level instruction with special education support.⁹ The LRE definition in IDEIA does not indicate that aides and services should be limited by disability type, but discrepancies do exist. Researchers in this study were particularly concerned with unevenness in support between students with easily identifiable disabilities, such as deafness, and those with behavioral challenges. Students with less visible physical challenges often may not be provided one on one paraprofessional aides. Also differences by state are significant. Some states consider a one-on-one special education aide to be a more restrictive environment than a pull-out special ed-

5 Mitchell L. Yell, *Least Restrictive Environment, Inclusion, and Students with Disabilities: A Legal Analysis*, 28(4) J. SPECIAL EDUC., 389, 389–404 (1995).

6 Mitchel L. Yell & Antonis Katsiyannis, *Placing Students with Disabilities in Inclusive Settings: Legal Guidelines and Preferred Practice*, 49(1) PREVENTING SCHOOL FAILURE: ALTERNATIVE EDUC. FOR CHILDREN AND YOUTH 28, 31 (2004).

7 Patricia J. Rea, Virginia L. McLaughlin, & Chriss Walther-Thomas, *Outcomes for Students With Learning Disabilities in Inclusive and Pullout Programs*, 68(2) EXCEPTIONAL CHILDREN 203, 219 (2002); Henry M. Levin, *Financing the Education of At-Risk Students*, 11(1) EDUC. EVALUATION & POL'Y ANALYSIS 11–34 (1993); Henry M. Levin, *Accelerated Schools: A New Strategy for At-Risk Students*, 1 POL'Y BULLETIN 2–4 (1989); Ruth Carol Hawkins, *The Impact of Inclusion on the Achievement of Middle School Students with Mild to Moderate Learning Disabilities* (2011) (unpublished Ph.D. dissertation, Walden University) (available through ProQuest); Cynthia A. Johnson, *The Impact of Inclusion on Standardized Test Scores of Learning Support Students* (2007) (unpublished Ph.D. dissertation, Walden University) (available through ProQuest); *But see* Janette Kettmann Klingner, et al., *Outcomes for Students With and Without Learning Disabilities in Inclusive Classrooms*, 13(3) LEARNING DISABILITIES RES. & PRAC. 153, 159 (1998).

8Jennifer A. King, *Meeting the Educational Need of At-Risk Students: A Cost Analysis of Three Models*, 16(1) EDUC. EVALUATION & POL'Y ANALYSIS 1, 1–19 (1994).

9 Lorna Idol, *Toward Inclusion of Special Education Students in General Education: A Program Evaluation of Eight Schools*, 27(2) REMEDIAL & SPECIAL EDUC. J. 77 (2006).

education classroom.¹⁰ Also some states are more restrictive in education funding, and our observations have found that a special education aide can cost as much as \$12,000–\$15,000 a year or even more per student served.

Parents who are dissatisfied with services or support and cannot resolve the matter with the school district have the right to a due process hearing (DPH), in which an independent hearing officer (IHO) considers both positions and makes a binding determination expressed in a written decision. Nichol (2016) described due process in the actualization of law:

"[Special education] 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."¹¹ Legal practitioners and education administrators utilize these decisions to guide implementation.

The most helpful source in analyzing patterns of hearing decisions regarding one-on-one special education aides for students with disabilities has been a nationwide database of due process hearings: *Special Ed Connection*. Nichol explained,

This database is an extensive collection of DPHs by experts in the field. . . . 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.¹²

As IDEIA indicates that students with disabilities should not be removed from general education classes unless "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),¹³

we anticipated many parent-school due process decisions regarding a one-on-one special education aide. A longstanding precedent exists for IEP teams providing American Sign Language (ASL) interpreters; however, we theorized, based on experience and a review of literature, that fewer students with other disabilities were

¹⁰ John Copenhaver, *The Least Restrictive Environment: A Primer for Parents and Educators*, MOUNTAIN PLAINS REGIONAL RESOURCE CTR. (2006), <https://eric.ed.gov/?id=ED498472>.

¹¹ Wendy Seiter Nichol, *An Analysis of Due Process Hearings Involving Students with Significant Disabilities in Their Least Restrictive Environment* pp. 10–11 (Jun. 1, 2016) (unpublished Ph.D. dissertation, BYU) (available through ProQuest).

¹² *Id.* at 11.

¹³ Disabilities Education Improvement Act, *supra* note 1.

provided this service, with students with behavioral disabilities among the least served.

This research endeavored to provide insight on the applications of the broad goals and purposes of the IDEIA at the local levels by identifying patterns in states' policies, particularly regarding inequities or blind spots in meeting students' needs. The undergirding principle of IDEIA is that decisions should be individualized to the needs of each qualifying student, not bound by preset guidelines or paradigms that might prevent considering one-on-one aides when appropriate. We began this research expecting to find patterns in due process decisions suggesting the difference alluded to above between provision of aides for students such as students with hearing loss, and students on the spectrum for autism, or with other behavioral disorders. We investigated all relevant due process hearing decisions in 2014 and 2015, looking particularly for state differences that might reveal conflicts in interpretations and policies.

I. METHODS

A. Dataset

Our research dataset consisted of the legally binding due process hearing decisions digitized and uploaded in *Special Ed Connection*, the Individuals with Disabilities Education Law Reporter (IDELR) nationwide database. With the exception of those sealed by the IHO, the database includes the hearing decisions from across the country. A team of researchers has worked via Freedom of Information Act (FOIA) requests to procure and include all decisions of public record from all states and the District of Columbia. While efforts have been made to ensure that the database is comprehensive, some decisions are withheld for privacy concerns.

As all data used in the study are in the public domain, identities did not require protection. This dataset did not reveal whether due process decisions differed across demographic characteristics, although we recognized possible demographic factors in the parents likely to seek due process. Parental factors like socioeconomic status, race, ethnicity, education levels, and advocacy support would have potential influence; however, as these variables were not identified by the data set, they are outside the scope of this study.

B. Procedure

1. Search process.

The database is available online, searchable with Boolean operators. We conducted our search using multiple terms in the Boolean operator, including variations of *one-on-one aides*, *one-on-one paraeducator*, and *one-on-one behavioral aides*, while seeking to recognize heteromorphic and homomorphic issues or fallacies raised by the use of differing terms in due process hearings to find hearings that were on point no matter the words used. We mined from the database all decisions involving provision of a one-on-one aide, breaking down the search by one-year increments with an initial timeframe of four years; Table 1 indicates the first list of Boolean search term combinations and the resulting number of decisions identified per year. Anticipating a widely diversified special education vocabulary by state, we consulted with practitioners at school, district, and university levels to review search terms and add 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. In the initial search only two decisions surfaced in a 10-year window for *ASL interpreter*. We questioned plausibility considering the widespread acceptability of one-on-one ASL interpreters. Including variations of *ASL interpreter*, we discovered additional applicable decisions.¹⁴

2. Data analysis.

Hearings in the four most recent years showed no major differences by year in number and type, supporting the team decision to use purposive sampling to limit the dataset to decisions from a two-year period, 2014 and 2015, for a total of 225 due process hearing decisions. These 225 published decisions ranged from 1 to 69 pages, providing a total of 3,971 pages for analyses. We read each case for specific and relevant information: year, state, disability, setting, aide requested, provision/denial, school type, LRE issue, and FAPE issue, as well as whether the aide provision was the central or pivotal issue in the decision and whether the parents had made the request. These data were compiled in an Excel spreadsheet, with most categories noted by short definitive titles (e.g., year, state, disability, setting, LRE, and FAPE).

¹⁴ See *infra* Table 3.

Disability categories were based on those indicated in the due process hearing documents. The majority of states classify attention-deficit hyperactivity disorder (ADHD) under other health impairment (OHI). However, several hearing documents categorized students as having ADHD. For accuracy, this study used classifications from the hearing decisions. Several states (e.g., Hawaii, New York) remove the student's specific disability and school level from the decision documents leaving blank spaces; in this study *undisclosed* was used in those instances. Occasionally if inferences from the service pattern would reveal the type of disability, the hearing report would use *undisclosed* for that information.

Many types of inclusion aides exist, and the states designate them with different terms in the due process hearings. Using these terms for type and responsibilities of the aide, we categorized the aides as behavior, instruction, safety, medical, ASL, shadow, communication, physical assistance, language, and unspecified.¹⁵ Using Excel we sorted and categorized the data by different variables, then utilized cross tabulation features to view relationships and identify specific patterns in the data.

II. FINDINGS

We identified four data patterns involving one-on-one aides: (a) by state, (b) by type of aide and disability; (c) by central issue and disability; and (d) by LRE and FAPE decisions.

A. *One-on-One Aides by State*

Specific patterns emerged by state in the number of hearing decisions reported and the number of one-on-one aides provided; 28 states and the District of Columbia were represented in the timeframe of hearings.¹⁶ Cross-referencing the number of due process decisions with the 10 most populous states in 2014 revealed some intriguing patterns.¹⁷ According to the U.S. Census Bureau Report, California and New York were 1st and 4th respectively in population size¹⁸ and were highest in number of due process decisions and one-on-one aides provided. Pennsylvania, Ohio, and Michigan

¹⁵ See *infra* Table 4.

¹⁶ See *infra* Figure 1.

¹⁷ See *infra* Table 5.

¹⁸ *Florida Passes New York to Become the Nation's Third Most Populous State*, Census Bureau Reports, U.S. CENSUS BUREAU, (Dec. 23, 2014), <http://www.census.gov/newsroom/press-releases/2014/cb14-232.html>.

(6th, 7th, and 10th most populous)¹⁹ demonstrated comparable results with high numbers of both due process decisions and one-on-one aides provided. However, Texas, Florida, and Illinois (2nd, 3rd, and 5th in population respectively)²⁰ were among the lowest in total number of applicable due process hearings and in one-on-one aides provided. Texas and Florida combined had only six hearings regarding one-on-one aides and in our findings provided only three one-on-one aides. Georgia and North Carolina, despite large populations, had no due process hearing on provision of a one-on-one aide.

Another data point we considered in this state-by-state analysis was the issue of per pupil expenditure. Maciag demonstrated that Florida and Texas were 42nd and 44th in the nation in overall education expenditures in 2014;²¹ these very large states apparently did not fund education per pupil at the same level as many others.²² Similarly, Georgia, the eighth most populous state, was 38th in per pupil spending, and North Carolina, ninth most populous, was 45th.²³ These populous states' lesser willingness or ability to fund education may be associated with the low number of due process hearings to obtain aides and low number of aides provided.

B. Types of One-on-One Aides by Disability

Figure 4 breaks down due process hearing decisions both by type of aide requested and by disability. In the two-year timeframe, 79 hearing decisions responded to a request for a one-on-one aide for a student with autism—35% of all the decisions in the sample.²⁴ The U.S. Department of Education reported that during 2013–14 only 8.3% of students had been

classified with autism, a striking contrast to the percentage of decisions focused on students with this disability.²⁵ A behavior aide was requested in 57 of the 79 due process decisions.

A deeper examination of these decisions reveals further pat-

¹⁹ *Id.*

²⁰ *Id.*

²¹ Mike Maciag, *The States That Spend the Most (and the Least) on Education*, GOVERNING (Aug. 2016), <https://www.governing.com/topics/education/gov-education-funding-states.html>; see *infra* Figure 2.

²² See *infra* Figure 3 for states in descending order.

²³ Maciag, *supra* note 22.

²⁴ See *infra* Figure 4.

²⁵ *Children 3 to 21 Years Old Served Under Individuals with Disability Education Act*, NAT'L CTR. EDUC. STAT. (2015), https://nces.ed.gov/programs/digest/d15/tables/dt15_204.30.asp?current=yes.

terns of interest.²⁶ The data in Figure 5 clearly reveal that, contrary to our presupposition, students with autism received one-on-one aides notably more often than students with other disabilities in the hearing decisions, predominantly for behavior support.²⁷ We expected to find limited provision of one-on-one aides to support behavior, but students in many disability categories have received this aid.

One-on-one support for students who are deaf was also of particular interest. The dataset contained only nine hearings seeking a one-on-one ASL interpreter, and in all decisions the aide was provided. The low number of due process hearings for students with deafness and the high provision rate may reflect wide general acceptance of this support for such students, perhaps giving credence to an inverse relationship between accepted practice and requests through due process hearings.

Tables 6 and 7 illustrate provision percentages for one-on-one aides by type of aide support. During 2014 and 2015 one-on-one aides were provided for 100% of ASL needs, 79% of safety needs, 70% of behavior requests, and 65% of instructional assistants desired.²⁸

C. *One-on-One Aide as Central Issue by Disability*

One of the categories explored in this study was *central issue*, the categorization given decisions for which the chief complaint brought to the hearing officer was specifically concerned with provision of a one-on-one aide to provide FAPE and/or place the student in the LRE. Many decisions in this timeframe referenced provision of one-on-one aides, but central issue decisions involved parents having requested a one-on-one aide and the school or school district having disputed the provision. Table 8 represents the findings for central issue decisions sorted by disability. Discounting the areas with too few decisions, the disabilities of focus were autism, deafness, emotional disability, and multiple disabilities—those categories with the highest numbers of case references and of decisions providing one-on-one aides. As mentioned, nearly one third of the

²⁶ See *infra* Figure 5.

²⁷ *Id.*

²⁸ See *infra* Tables 6–7.

total central issue decisions and the number of aides provided were for autism; in 55% of such decisions the one-on-one aide was provided.²⁹ For students with multiple disabilities, the provision rate in central issue decisions was much higher—of the 13 decisions, the aide was provided eight times (62%).³⁰ The aide was provided in all seven central issue decisions involving students who were deaf; in contrast, in the seven central issue decisions for students classified with an emotional disturbance only three were awarded a one-on-one aide.

Table 8 portrays the contrast of ASL interpreters being provided in 100% of cases while behavior aides were provided in only 55% of decisions for students with autism and 43% of decisions for students with emotional disturbance.³¹

D. Decisions of LRE and FAPE

All the due process hearings in this study were based on denial of FAPE, and 76 of them also cited denial of LRE—challenging a students' class or service placement.³² Significant overlap in the decisions of dual complaints became a confounding variable requiring that these be counted as *both* LRE and FAPE decisions.

In the LRE decisions, aides were provided in 29 of the 76 hearings for students with autism.³³ These 29 (38%) were parent requests for a one-on-one aide to serve their students in settings they deemed less restrictive than the IEP team's placement.³⁴ The decisions provided the aide for 62%.³⁵ Emotional disturbance and multiple disabilities, the others having substantial provisions (with case-loads of more than six decisions), showed similar patterns of provision.³⁶ Provision rates were 75% for emotional disturbance and 71% for multiple disabilities.³⁷ Clearly in due process decisions, IHOs tended to provide one-on-one aides when LRE was challenged. As FAPE was the central issue in all 225 decisions, the number of FAPE decisions equals the total number of decisions; thus analysis and pat-

²⁹ See *infra* Table 8.

³⁰ *Id.*

³¹ *Id.*

³² See *infra* Table 9.

³³ *Id.*

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

terns for FAPE decisions are consistent with the previous findings.

Comparison of the FAPE and LRE decisions by provision rates demonstrated further patterns.³⁸ The provision rate for FAPE decisions was 72%, compared to 66% for LRE. 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 served by the hearing.

III. DISCUSSION

The decisions made in the due process hearings analyzed in this study have shown discrepancies in how needs of students with disabilities are being met through IEPs. Patterns in IEP team and due process decisions appear less individualized than the IDEIA language asserts.

Inclusion done correctly has been highly effective.³⁹ One-on-one aides can make inclusion possible for students with disabilities; IEP teams should include this resource among the appropriate aids and services provided to support inclusion to the maximum extent appropriate.⁴⁰

A. Limitations

This research was intended to identify patterns and draw broad conclusions in decisions of due process hearings. Several limiting factors warrant consideration. Size of the sample was limited by the brief two-year timeframe and the number of hearings in the database. Also examining due process hearings tempts researchers to make broad and unqualified generalizations about special education needs and practices. Low numbers of hearings and low provision rates from hearings were difficult to interpret: Were one-on-one aides provided in a state or for a disability sufficiently such that parents in that state did not generally feel a high need to seek due process, or did parents accept low provision rates because of their prevalence? Our data were insufficient for definite conclusions on such questions.

³⁸ *Id.*

³⁹ *See supra* note 8.

⁴⁰ Yell, *supra* note 6.

Another limitation has been potential for bias. The first author is a school administrator who has spent years struggling to meet individualized needs of students with disabilities, and is the father of a student with behavioral disabilities. Other members of the research team have given continual feedback to balance project objectivity.

B. Implications for practitioners.

These findings indicate that some students with disabilities across the country are receiving support from one-on-one aides at a relatively high rate, while in some states one-on-one aides are rarely utilized and, as Copenhaver illustrated, often interpreted as a more restrictive environment than a pull-out class.⁴¹ Vast differences of provision and understanding among states suggest the need for a critical reevaluation of the benefits of one-on-one aides and their place on the continuum of services, going beyond widely-recognized physical disabilities to include students needing behavioral support in an inclusion setting. IEP teams may use findings such as these to suggest that they should fully consider whether a student with emotional disturbance or autism could access grade level curriculum in the regular classroom with a one-on-one behavioral aide. Our findings showed students with these classifications received with this support in more than 70% of hearings. We recommend that teams supporting student success consider one-on-one aides for students in such classifications rather than simply default to pull-out specialty classes.

C. Implications for future research.

Further studies into state differences in providing one-on-one aides for various disabilities could include connections with per-pupil spending. Additional research is also needed to determine why such a high percentage of due process decisions regarding one-on-one aides involve students with autism compared to the low percentage of students with autism in the school population, perhaps also comparing percentages of students who qualify for any services due to autism.

A review of data beyond the due process hearings would help

⁴¹ Copenhaver, *supra* note 10.

in discovering if students whose disabilities are more visible receive more appropriate services than students whose disabilities are less apparent, with serious implications for appropriateness and equity. School level might also receive consideration.

IV. CONCLUSIONS

The critical finding of these data is that, despite significant differences among states, one-on-one aides are being provided with greater frequency than anticipated for students with a variety of disabilities, and that autism is the most represented disability in due process hearings seeking and receiving behavioral aides. Disabilities such as hearing impairment (with 100% provision) have higher rates than autism or behavioral disabilities.

Significant patterns emerged in this study regarding differences among states in funding levels and resource allocation. We've had difficulty discerning whether the small numbers of decisions regarding aides in some states is due to high or low provision statewide. Perhaps this is the reason inclusion with a one-on-one aide is considered by some as a more restrictive setting than a pull-out class. Further research might begin at this point. Differences also exist among disabilities: ASL interpreters were provided by 100% of the hearings in this study, while behavioral aides were provided by 53% for students with autism and 43% for students with emotional disturbance—a notable contrast between highly visible and less visible disabilities. The patterns in this data, based on a large national sample, seem to suggest differential provision of one-on-one aides based on the type of disability presented, rather than based on an individualized determination in each student's case. While the patterns seem suggestive, additional research is needed to make meaning from such patterns of provision for one-on-one aides based on disability type.

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
On-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.

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

Table 4

Definitions of Types of One-on-One Aides

Type of Aide	Definitions
Behavior	Provides specific behavioral interventions
Instruction	Provides academic and organizational support and instruction
Safety	Ensures safety for student from harm by self or others
Medical	Provides specific medical support—nurse or trained professional
ASL	Provides sign language interpretation
Shadow	Watches student from a distance, intervenes only in extreme circumstances
Communication	Helps student with speech-related communication
Physical assistance	Provides physical support (e.g., navigating halls, changing, using bathroom)
Language	Provides language translation services
Unspecified	Provides one-on-one services not specified

Note. The majority of hearings listed the title of the aide. When not listed, type was inferred from tasks assigned.

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), *supra* note 19.

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. ASL = sign language interpreter, Behavior = behavior support, Comm. = communication, Instr. asst. = instructional assistant, Phys. asst. = physical assistance, Unsp. = specific duties not listed.

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 are as listed in the hearing documents. Row descriptors: (see note for Table 6). Behav. = behavior, 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 disabilities, MCD = moderate cognitive disability, OHI = other health impairment. 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 the study.

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 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	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 disabilities, MCD = moderate cognitive disability, OHI = other health impairment, ODD = oppositional defiant disorder, Orthopedic = orthopedic impairment, SLD = specific learning disability, TBI = traumatic brain injury

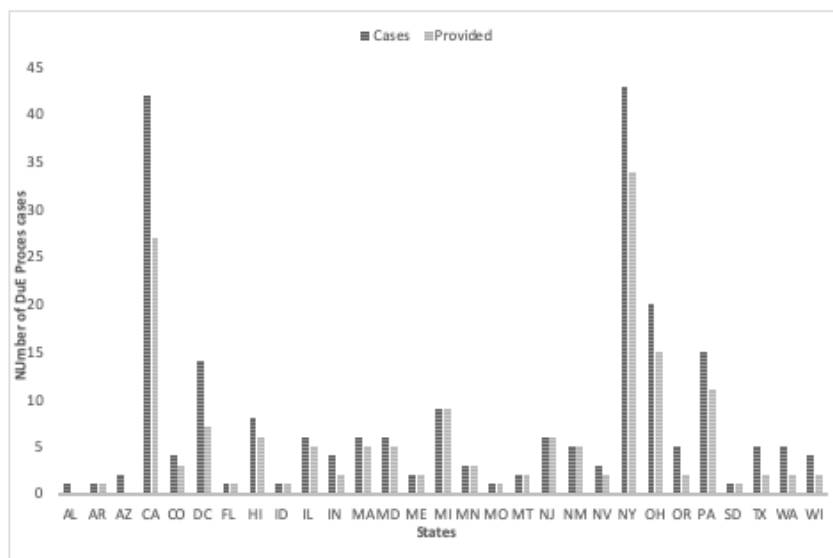


Figure 1. Due process hearings and one-on-one aides by state. Only the states with due process hearings pertaining to the provision of one-on-one aides in 2014 and 2015 are included.

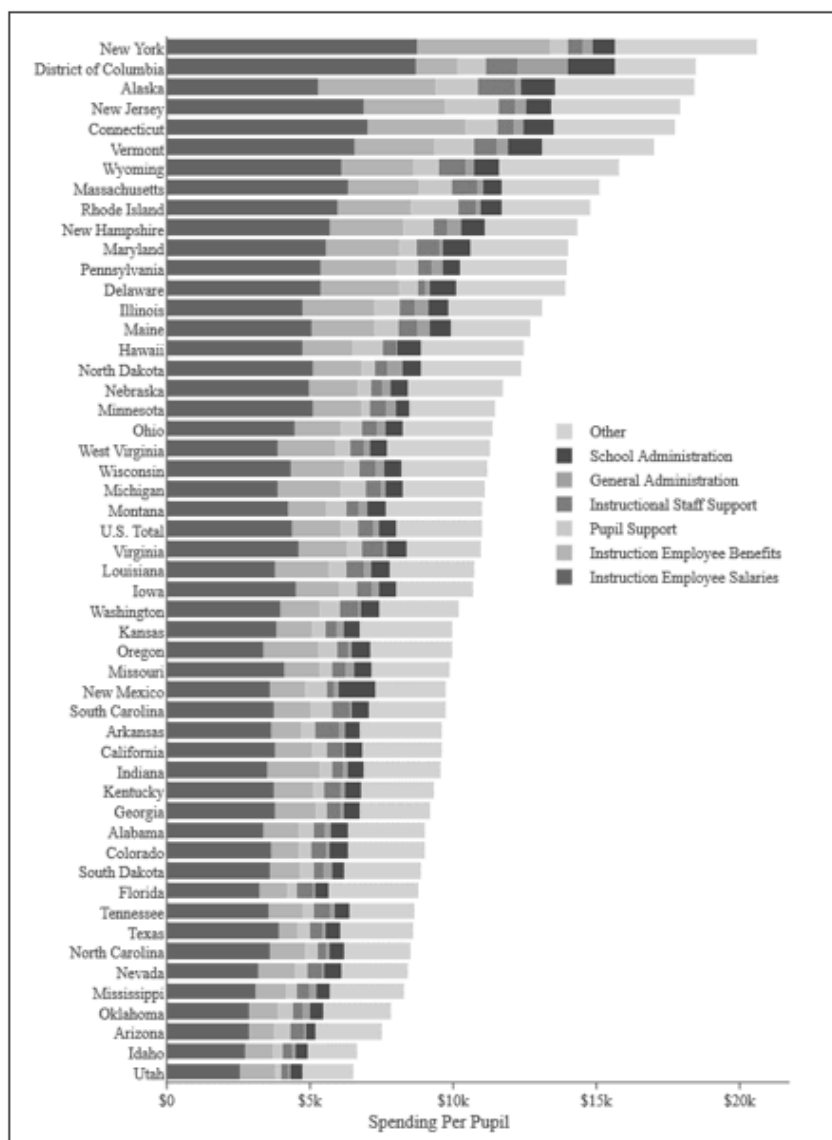


Figure 2. Per pupil spending in 2014 per Maciag, supra note 22.

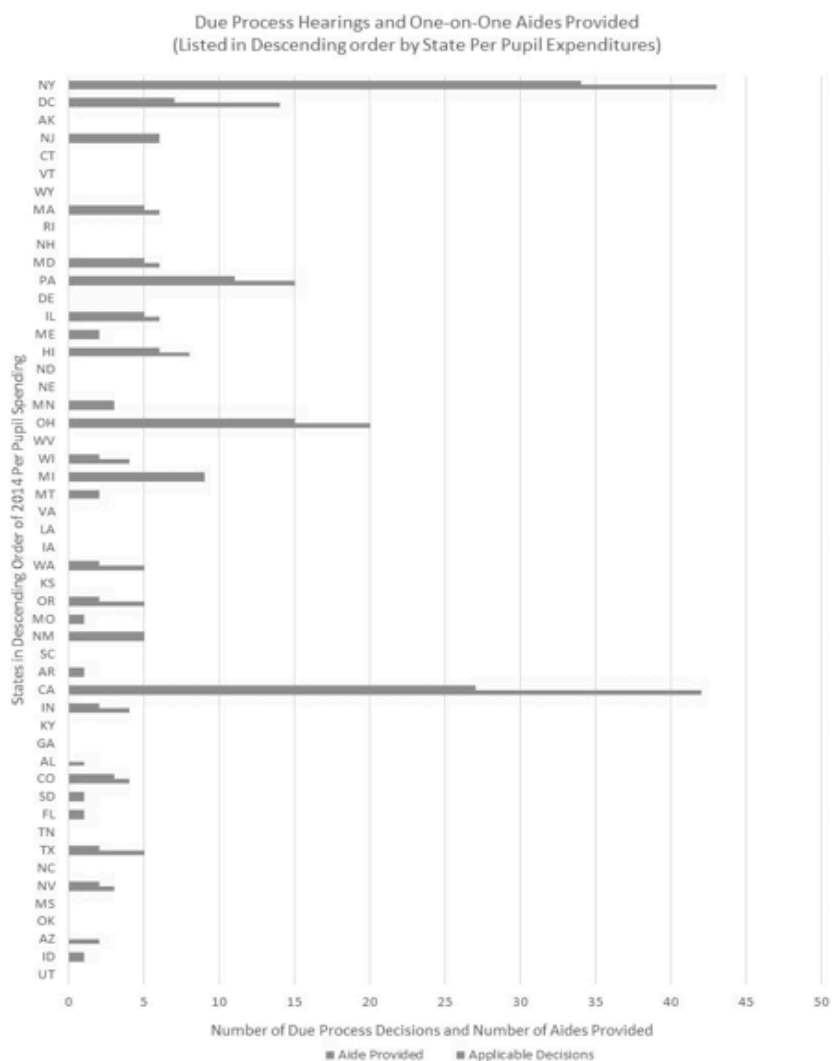


Figure 3. Due process hearing decisions and aides provided in order of 2014 state per pupil spending. States are listed in descending order of per pupil expenditures as cited by Maciag, *supra* note 22.

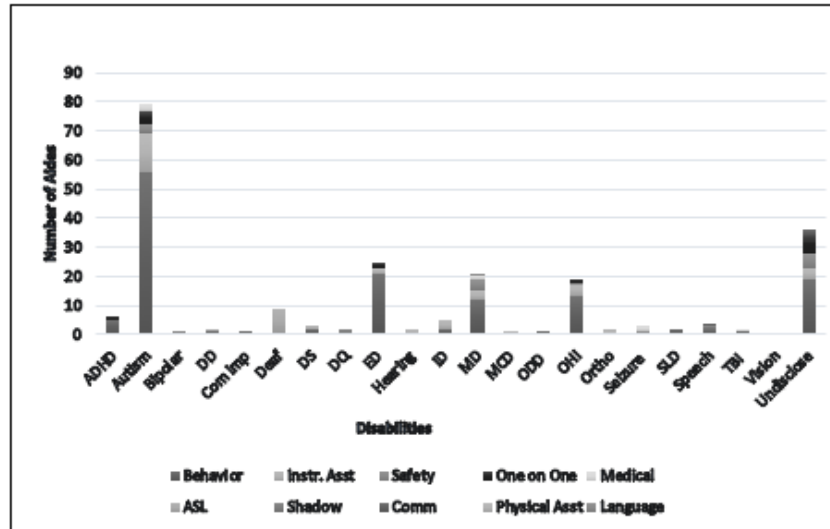


Figure 4. Type of aide requested in due process hearings by disability.

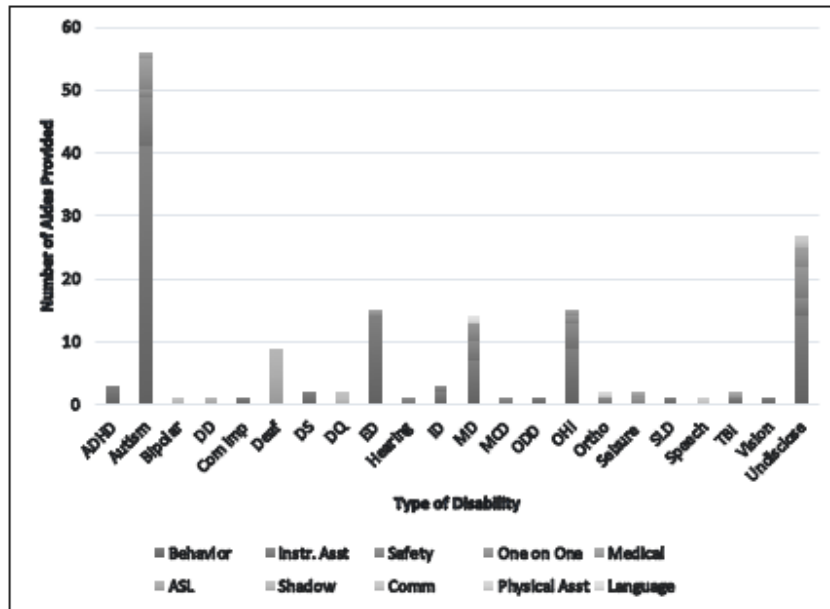


Figure 5. Type of aide provided listed by disability.