

THESIS

A PICTURE OF TRAUMATIC BRAIN INJURY IDENTIFICATION POLICY IN U.S.
SCHOOLS BY STATE

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ABSTRACT

A PICTURE OF TRAUMATIC BRAIN INJURY IDENTIFICATION POLICY IN U.S. SCHOOLS BY STATE

The Individuals with Disabilities Education Improvement Act of 2004 (IDEA, P.L. 108-446) gives definitions for each disability category and general eligibility criteria that apply to all of the disability categories. Each state is allowed by IDEA to have their own definitions for each category, and it is up to the individual states whether they require more specific guidelines for eligibility criteria or if they want to use what is written in the legislation. This study examines the definition and eligibility criteria each of the 50 states in the United States use specifically for the traumatic brain injury (TBI) disability category. In this nation-wide descriptive study, members of the Department of Education for each state were contacted either to verify definitions and eligibility criteria uncovered from existing documentation found through the National Association of State Head Injury Administrators and state Department of Education websites; update the data that were found; or provide data that were missing from the initial search. Results indicated that 45 states fit in the “federal definition category,” and 6 states fit in the “own definition category” for the TBI definitions. For eligibility criteria, 27 states fit in “medical identification,” 11 states fit in “discretion of IEP team,” and 12 states fit in the “no TBI specific criteria” category. Currently, all states identify less than 1% of students receiving special education services as having a TBI, with the exception of Massachusetts (5.11%). The findings of this study demonstrate the discontinuity within the states in the policies and procedures used to determine special education eligibility.

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Literature Review

Purpose

The purpose of this study is to describe what the 50 U.S. states require of students who have sustained a traumatic brain injury (TBI) to receive appropriate services specific to TBI in accordance with the Individuals with Disabilities Education Improvement Act of 2004 (IDEA).

Background and Statement of Problem

The Education for All Handicapped Children Act of 1975 was initiated to ensure that students with disabilities receive a “free and appropriate education.” When a student has a disability that impairs her/his education, the government requires that schools provide special education and related services to improve academic participation. In 1990, the Individuals with Disability Education Act (IDEA) listed 14 different disability identification categories that qualify students for services including visual impairments, autism, and TBI. These categories provide a lens through which to view the student and help inform what services and interventions may be needed to insure best academic support.

Under the current provisions of IDEA (2004), it is the responsibility of individual states to adopt definitions for each disability category listed in the legislation as well as their corresponding eligibility requirements. The main stipulations given are that the definitions and eligibility requirements of the states meet the generalized criteria that apply to all disabilities as they are laid out by the legislation. This is fulfilled by states presenting a description of each disability category, and implementing eligibility requirements that include documentation of a disability, as well as evidence of its negative impact on education. These are the only two eligibility requirements for special education listed in IDEA (2004, § 1414), and they apply to all of the disability categories. Eligibility requirements for specific disabilities are not listed. The

law gives examples of documentation to support justification of a disability identification that include observation of behaviors related to a specific disability, a student not meeting educational standards, and medical documentation if available. This broad expectation from the federal government leads to a lack of congruence in eligibility requirements from state to state.

The process of obtaining access to special education services for students with a TBI exemplifies this disjunction. For example, the federal government mentions medical documentation as potential evidence to support that a student has a disability warranting services (IDEA, 2004). The state of Colorado stipulates that medical documentation is beneficial but not required for a student to become eligible and entitled to receive services specific to TBI (Exceptional Children's Educational Act, 2013), but Alaska requires documentation from a physician in order for a student to receive services under the TBI category (Alaska Administrative Code, 2015, § 52.1302.p). Although the National Association of State Head Injury Administrators (NASHIA, 2014), has a document detailing the definitions of TBI used by each state's Department of Education, as well as a fraction of their eligibility requirements, there is currently no document available that details exactly what type of documentation each state requires for students to be found eligible to receive services under the TBI special education category. The lack of readily available access to this eligibility information in each individual state presents a problem for researchers as they are attempting to develop an accurate nationwide picture of the process involved in categorizing students as having a TBI so that they are able to obtain special education services specific to TBI. This study seeks to begin describing the process of obtaining eligibility for special education services for school students under the category of TBI, as it is described in individual state policies and protocols.

Research Question

1. What is the state of the United States concerning special education TBI identification processes and protocol?

Traumatic Brain Injury

The definition of traumatic brain injury (TBI) used in IDEA legislation (1990), is:

An acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a student's educational performance. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma (20 U.S.C. § 1401).

This is the definition used as the standard federal definition for the purposes of this study.

Any deviations by individual states related to their TBI definitions are noted.

Impact of TBI Related to School Performance

A number of researchers have reported on the many symptoms children experience post-TBI, including headaches, fatigue, dizziness, blackouts, lack of concentration, vision problems, problems with attention and memory, low frustration tolerance, and behavioral problems (Hooper et al., 2004, Petersen, Scherwath, Fink, & Koch, 2008). Children with a severe TBI also may deal with difficulties socializing in acceptable ways, physical impairments, and lowered cognition (Chapman et al., 2010; Gfroerer, Wade, & Wu, 2008).

These problems potentially impact all areas of daily life, and the effect on education and performance in school can be substantial. For example, one study found that mild-to-moderate brain injuries in preschool-aged children are associated with long-term behavioral issues, including limited attention span, impulsivity, defiance, and irritability (McKinlay, Grace, Horwood, Fergusson, & MacFarlane, 2009). Teachers acknowledge that the majority of students known to have sustained a brain injury experience difficulty with schoolwork, and many perform below the average level for the class (Hawley, 2004). Chapman et al. (2010) reported impaired executive functioning after TBI in children, leading to progressively greater problems in later childhood years. This point is exemplified in a case study of a student with a moderate TBI (Hawley, 2005). Two years into the study the student was expected to complete more assignments and had six more teachers to interact with than the year prior. Coinciding with this higher demand on this student's executive functioning came greater behavior problems, including increased difficulty paying attention, and lower task initiation than was reported in the first year of the study. Although a TBI may not lead to immediate academic concerns, as students grow and more is expected behaviorally, socially, and cognitively, the residual impact of the student's TBI may increasingly be manifested (Chapman et al., 2010).

Accessing School Services

Research demonstrates a link between TBI and decreased school performance. Hux, Dymacek, and Childers (2013), however, reported that of the 53 elementary school students in their study who screened positive for a TBI, using the Sickness Accidents Falls Emergency Room (SAFER) Child Behaviors screening tool, none of them were receiving special education under the TBI category. Keenan, Murphy, Staheli, and Savitz (2013), found that there is a lack of follow-up upon discharge from a hospital by a pediatrician with families of students who have

sustained a TBI, and the student's schools, leading to under-identification of students with TBI in schools through IDEA. Furthermore, Hawley (2004), found in her study of children admitted to a hospital and tracked on their school performance one to six years after their TBI that only 40% of teachers knew of a student's TBI when it was mild, 53.8% when it was moderate, and 78.9% when it was severe. In the same study, only 20% of students with a mild TBI, 7.7% with a moderate TBI, and 42.1% with a severe TBI in the study were receiving special education services despite the finding that over 38% in all three categories were performing below average academically. A potential explanation for less students with a moderate TBI than a mild TBI receiving special education services in the study may be related to misidentification or under-identification.

In a study of public information and epidemiological reports reviewed by Shutz, Rivers, McNamara, Schutz, and Lobato (2010), it was determined that only 1%-2% of students with a documented TBI are receiving special education services specific to TBI. The discrepancy between the number of students who have sustained a TBI and how many of them receive special education services specific to their TBI is further supported by data from the Centers for Disease Control and Prevention (CDC, 2014). The CDC reports that children ages birth to four and 15 to 19 years are among those with the highest risk of sustaining a TBI. Over 2,000 per 100,000 children ages birth-4 and close to 1,000 per 100,000 of those ages five-14 years in the United States visiting the emergency department annually as a result of TBI-related injuries. It is estimated that 475,000 children ages birth-14 sustain a TBI each year in the U.S. (CDC, 2007). Yet, according to the IDEA Data Center (2014), less than 25,000 students ages 3-21 years across the United States are receiving special education services under the TBI category.

The discrepancy between children who have sustained a TBI, and the amount of students receiving special education services under the TBI category, may indicate that students are being misidentified or unidentified; potentially leading to inappropriate or no student academic support. Misidentification possibly can prevent students from receiving the best school-based intervention that can be afforded to them. A student with TBI has unique needs that may require cognitive, behavioral, social, and environmental supports that may not be properly addressed if the student has been misidentified (Hibbard, Gordon, Martin, Raskin, & Brown, 2001). Due to the discrepancy in identification of students with TBIs in schools, and knowing that each state is charged by IDEA (2004) with creating their own individual eligibility requirements for students to receive special education services, it is important that educational researchers look at the process used by the different U.S. states in defining and accessing special education, under the TBI category.

Summary

Until this study there was no research, or any document that presents a clear picture of what documentation each U.S. state requires from students in order for them to become eligible for special education services, under the TBI category. Having one report to reference that includes all of the states' current eligibility requirements will provide researchers and policy makers with a foundational picture of how TBI-focused special education services are accessed in schools across the nation. Therefore the objective of this study was to describe the processes and protocols in each of the 50 states that is used for TBI identification in schools.

Methods

Research Design

The research design is a nation-wide descriptive study on the state of the United States, concerning TBI identification processes and protocol.

Procedures

State Departments of Education were surveyed to determine their policies and protocols for TBI identification for special education. The following data were collected from each state for this study: definition of TBI and their special education eligibility requirements. Data were collected by first consulting the TBI definitions and eligibility criteria in the existing document created by NASHIA (2014). The author then checked state Department of Education websites for missing data. If the missing information was not available there, the state's legislative website was used to collect data. Once data were initially collected, each individual state's Department of Education was emailed to check the collected data for accuracy. The contacts were found on individual state's Department of Education staff directories. First choice contacts were staff designated as TBI specialists for the department. If a point person was not available, administrative staff for the special education department were contacted. If there was no response, legislative and policy staff for the education department were contacted. If there still was no response, the Department of Education general e-mail account was contacted. If there was still no response, the state's NASHIA representative was contacted. Some contacts responded by forwarding my initial e-mail to a more appropriate contact. After responses were received, the reply was compared to originally corrected data for accuracy and updated when appropriate. Figure 1 provides a flow chart of the procedures that were followed for obtaining the definitions and special education eligibility requirements for each state. The number of students

identified with TBI and the total number of students receiving special education services from each state were collected from the IDEA Data Center (2014).

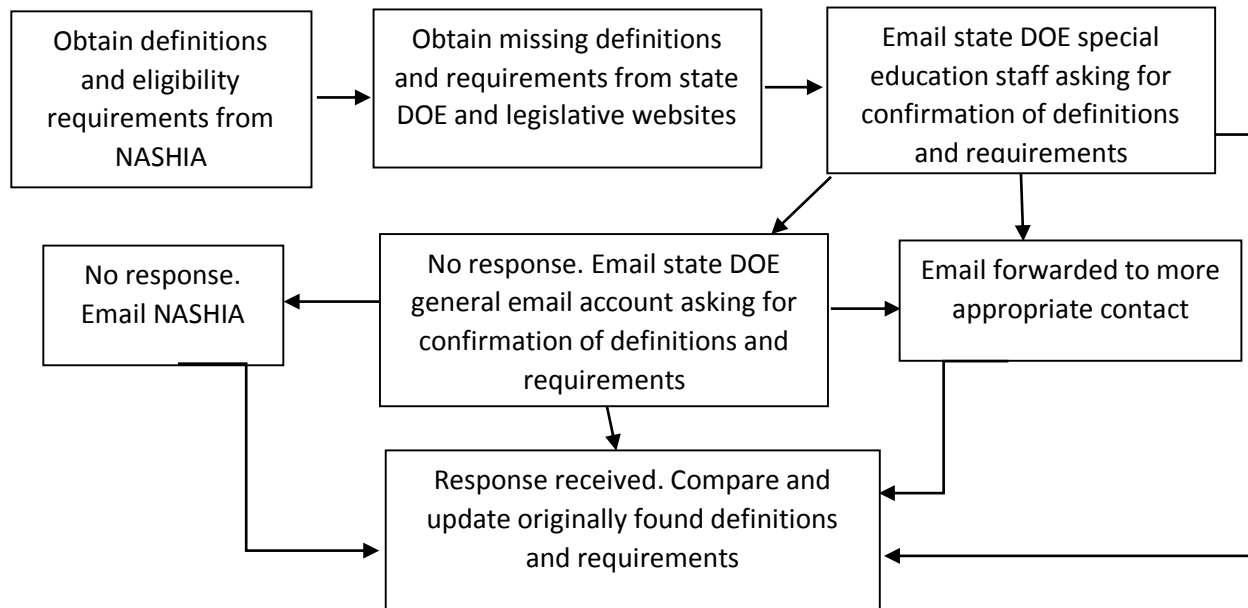


Figure 1 Procedures for obtaining definition and eligibility requirements.

When the data were collected, both the state definitions for TBI and special education eligibility requirements were divided into categories according to their content and placed in a table created by the author. Initially the definitions were categorized as: “federal definition,” “ABI definition,” and “own definition.” Due to only four states using the “ABI definition,” and one state using a broader definition than the others, the “ABI definition” and “own definition” categories were combined. The differences of these six definitions are detailed in the Results section of this paper. The final categories for the definitions are “federal definition” and “own definition.” To be categorized under “federal definition”, the state must use a definition for TBI that has all of same components as the federal definition as stated in IDEA (20 U.S.C. § 1401). The components that must be included to be classified as a federal definition were:

- 1) A TBI is an acquired brain injury (ABI) caused by an external physical force.
- 2) The injury causes functional and/or psychosocial impairment that adversely affects education.
- 3) The definition includes open and closed head injuries.
- 4) Potential areas of impairment listed must match the following areas: cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech.
- 5) The definition must exclude congenital, degenerative, and birth trauma brain injuries.

If a state's definition did not include the above five components, it was assigned to the "own definition" category.

The special education eligibility requirements were categorized as follows: "medical identification," "discretion of IEP team," or "no TBI specific criteria." The category "medical identification" means that the state requires formal documentation of a diagnosis of TBI from a qualified health professional. This can include doctors, psychologists, and speech language pathologists. "Discretion of IEP team" means that it is up to the team that creates a student's individual education program (IEP) to decide what evidence is needed to qualify, which can include but is not limited to a family reported history of a TBI or medical documentation. If the state does not have any eligibility requirements written specifically for TBI, it was placed in the "No TBI specific criteria" category. The definitions, eligibility criteria, and the categories that the state data were placed in were peer-reviewed in meetings with the author's research advisor to check for appropriateness of categorization. Through these peer review meetings it was

determined that only two categories were necessary for the definitions, and three categories were necessary for the special education eligibility requirements.

Results

Definitions

Data were obtained from all 50 states on their definitions and eligibility requirements for students to be identified as having a TBI. The definitions and eligibility requirements are located in Appendix A. Out of the 50 states, 42 use definitions for TBI that include the components of the federal definition, and nine states use their own definition. The full breakdown of these states is located in Table 1. The nine states that use their own definition are Florida, Georgia, Massachusetts, New Hampshire, New Jersey, New York, and North Carolina, Ohio, and Vermont. The states of Florida, Georgia, New Jersey, and New Hampshire all contain all of the components of the federal definition, but add a component that set their definitions apart as unique. Florida's definition of TBI adds the component "includes anoxia due to trauma" (Florida Administrative Code, 6A-6.030153, 2009). Georgia adds the phrase "impairments which are immediate or delayed" (Eligibility Determination and Categories of Eligibility, G.A.C. 160-4-7-.05-27, 2010). New Jersey's definition has the addition of the phrase "traumatic brain injury corresponds to neurologically impaired" and does not mention if they exclude degenerative or congenital brain injuries or brain injuries caused at birth. (Special Education Code, N.J.A.C. 6A:14-3.5, 2015). New Hampshire is unique in that it is the only state to provide definitions for both TBI and ABI. Their definition for TBI matches the components of the federal definition for TBI, and their definition for ABI is "brain injury that occurs after birth" with a list of examples of injuries (New Hampshire Rules for the Education of Children with Disabilities, §300.8; Ed 1102, 2014). The two definitions for New Hampshire share eligibility criteria requirements, but it was not clear if students fitting into the ABI definition are placed in the TBI category for data reporting purposes, or if they are placed in another category.

Ohio, New York, North Carolina, and Vermont are unique because their definitions for TBI are not limited to injuries caused by an external force. Ohio adds the phrases, “medical conditions, including but not limited to stroke, anoxia, infectious disease, aneurysm, brain tumors and neurological insults resulting from medical or surgical treatments” and “medical conditions that result in acquired brain injuries” but maintains other components of the federal definition (Ohio Administrative Code, 2006, §3301-51-02 (10)(d)(xii)). In New York, they add the phrase, “certain medical conditions such as stroke, encephalitis, aneurysm, anoxia or brain tumors” but maintains other components of the federal definition (Regulations of the Commissioner of Education, Section 200.1(zz)(12), 2014). In North Carolina, they add to the federal definition brain injuries caused by an “internal occurrence” with the examples of “cerebrovascular accidents (e.g., stroke, aneurysm, infections, kidney or heart failure, electric shock, anoxia, tumors, metabolic disorders, toxic substances, or medical or surgical treatments” and they include congenital brain injury and injury caused by birth trauma (Policies Governing Services for Children with Disabilities, NC 1500-2.4, 2014). North Carolina’s definition also mentions “a series of events (e.g. multiple concussions)” can result in a TBI that impacts education, and stipulates that a TBI does not require loss of consciousness. The federal definition does not address loss of consciousness in its definition. Vermont added to the federal definition the phrase, “or by an internal occurrence such as stroke or aneurysm” while maintain the other components of the federal definition (State of Vermont Special Education Rules, 2013, 2362.1(k)).

Massachusetts differs from the rest of the states because it does not have a definition for TBI. Rather, the state uses a definition for “neurological impairment” that includes TBI. They define neurological impairment the following way:

The capacity of the nervous system is limited or impaired with difficulties exhibited in one or more of the following areas: the use of memory, the control and use of cognitive functioning, sensory and motor skills, speech, language, organizational skills, information processing, affect, social skills, or basic life functions. The term includes students who have received a traumatic brain injury (Education Laws and Regulations, 603 CMR 28.02 7 (e), 2014).

Table 1. TBI Identification definitions and eligibility criteria by state

	TBI Definition		Eligibility Criteria		
	Federal Definition	Own Definition	Medical Identification	Discretion of IEP Team	No TBI Specific Criteria
Alabama	X		X		
Alaska	X		X		
Arizona	X		X		
Arkansas	X		X		
California	X		X		
Colorado	X			X	
Connecticut	X				X
Delaware	X		X		
Florida		X	X		
Georgia		X		X	
Hawaii	X		X		
Idaho	X			X	
Illinois	X			X	
Indiana	X				X
Iowa	X				X
Kansas	X			X	
Kentucky	X		X		
Maine	X		X		
Maryland	X				X
Massachusetts		X			X
Michigan	X		X		
Minnesota	X		X		
Mississippi	X			X	
Missouri	X			X	
Montana	X		X		
Nebraska	X			X	
Nevada	X		X		
New Hampshire	X	X	X		
New Jersey		X			X
New Mexico	X			X	
New York		X			X
North Carolina		X	X		
North Dakota	X				X

TBI Definition			Eligibility Criteria		
	Federal Definition	Own Definition	Medical Identification	Discretion of IEP Team	No TBI Specific Criteria
Oklahoma	X		X		
Oregon	X		X		
Pennsylvania	X		X		
Rhode Island	X				X
South Carolina	X			X	
South Dakota	X		X		
Tennessee	X		X		
Texas	X		X		
Utah	X		X		
Vermont		X	X		
Virginia	X				X
Washington	X				X
West Virginia	X		X		
Wisconsin	X			X	
Wyoming	X		X		
TOTAL	42	9	27	11	12

Eligibility Requirements

Of the 50 states, the special education eligibility requirements of 27 states fit into the category “medical identification,” 11 fit in the category “discretion of IEP team,” and 12 fit in “no TBI specific criteria.” For the states requiring medical documentation for eligibility, Kentucky, Maine, and New Hampshire require a current diagnosis from a “qualified professional” without defining what professions are included (Kentucky Department of Education, 2011; J. Lettre, personal communication, December 4, 2014; New Hampshire Rules for the Education of Children with Disabilities, §300.8; Ed 1107, 2014). Montana requires that before eligibility can be determined, a student must be evaluated by both a school psychologist and speech language pathologist (Administrative Rules of Montana, 10.16.3321, 2007).

The 11 states in the “discretion of IEP teams” category all required some form of documentation to prove that the student has a TBI. These sources of documentation included credible history, documentation from a medical professional, or assessments with results congruent with the symptomology of someone with a TBI. Most of the states in this category

were specific with options for documentation, but Idaho and Nebraska only stipulated documentation must be provided without giving specifics. In all instances in the category there was an emphasis that the IEP team must determine if the documentation provided to the school by family offers sufficient evidence to demonstrate a TBI. The 12 states listed in the “no TBI specific criteria” did not have any eligibility criteria written that were different from their criteria for other disability categories. In some states they had no eligibility criteria written for any of the disability categories, and they defaulted to IDEA (2004) criteria. In other states they had general criteria written that encompassed all disability categories.

Comparison of Students with TBI to Definition and Eligibility Criteria

IDEA (2004) stipulates that each state records the total number of students receiving special education services and the number of students receiving services under each category. The most recent data, from 2013 (IDEA Data Center, 2014), was run through Excel by the author to determine what percentage of all students receiving services under IDEA were identified with having a TBI. Wyoming was excluded from calculations because the IDEA Data Center determined that their data for TBIs was questionable and therefore was not reported. Of the remaining 49 states, 48 states reported that less than one percent (1%) of all of their students receiving special education services are identified as having a TBI. Of those less than one percent (1%) states, only two states reported students with TBI numbers above .50% (Colorado and Ohio, both with .58%). The one state above 1% was Massachusetts, which reported 5.11%. The specific percentages for each of the 50 states can be found in Table 2.

Table 2. Percentage of total students receiving special education identified with TBI

States	Percentage of IDEA Students Identified with TBI
Alabama	0.29
Alaska	0.23
Arizona	0.26
Arkansas	0.24
California	0.24
Colorado	0.58
Connecticut	0.17
Delaware	0.36
Florida	0.16
Georgia	0.23
Hawaii	0.30
Idaho	0.43
Illinois	0.25
Indiana	0.29
Iowa	0.28
Kansas	0.25
Kentucky	0.23
Louisiana	0.35
Maine	0.17
Maryland	0.25
Massachusetts	5.11
Michigan	0.27
Minnesota	0.35
Mississippi	0.24
Missouri	0.36
Montana	0.24
Nebraska	0.47
Nevada	0.38
New Hampshire	0.24
New Jersey	0.34
New Mexico	0.40
New York	0.24
North Carolina	0.22
North Dakota	0.41
Ohio	0.58
Oklahoma	0.23
Oregon	0.33
Pennsylvania	0.23
Rhode Island	0.25
South Carolina	0.20

States	Percentage of IDEA Students Identified with TBI
South Dakota	0.32
Tennessee	0.25
Texas	0.28
Utah	0.42
Vermont	0.34
Virginia	0.24
Washington	0.23
West Virginia	0.22
Wisconsin	0.31
Wyoming	*

*Wyoming was excluded due to IDEA Data Center (2014) deleting data as questionable.

Discussion

Overall, the results of this study describe the states' responses to the charge given by IDEA (2004), for each state to define and develop eligibility criteria specific to individual disability categories, including TBI. This charge has led to a variety of definitions and eligibility criteria for TBI services, between the states. The nine states using their own definitions exemplify the variety that current legislation allows. Furthermore, North Carolina, Massachusetts, Ohio, and New Hampshire use definitions that are so broad that they encompass even acquired brain injury (ABI), and do not limit themselves to brain injuries caused by an external force. IDEA does not have any category, definition, or recommendation given for ABI, and it is impossible to tell outside of these four states if these students are being included under the TBI category or are being served under a different category altogether.

It is important to note that Massachusetts has the broadest TBI definition, using a definition for neurological impairment rather than TBI, and they are the only state that reported over 1% of the total students receiving disability services under IDEA as having a TBI. The fact that the state is not just above 1%, but identifies 5.11% of the total students receiving special education services as fitting in the TBI category, indicates that Massachusetts clearly is doing something differently than the other states. It may be related to the definition of neurological impairment that they use, or it may be some other factor that this study does not capture. Further study of Massachusetts is needed to determine how they ensure students with TBI are receiving services, beyond simply examining their definition and eligibility criteria. Additionally, further inquiry into the slightly larger percentage of special education students in Ohio and Colorado (.58%), might yield useful information about policies and protocols in place in those two states that may have caused the resulting larger student TBI percentages than the other 47 states.

The special education eligibility criteria for each state provided a variety of information. Even within the three categories identified, there were differences within each state in each category. In the states that required medical documentation, some required a medical doctor, a psychologist, a speech language pathologist, or even a neurologist. In the states that required the IEP team to determine necessary documentation, there was variation in how specific they were with suggestions of appropriate documentation. Some states listed acceptable documentation that the IEP team should look for in making their decision whether a student is suitable for the TBI category, while other states only said that documentation of a TBI is needed without providing further suggestions or examples. These states typically referred to the IDEA (2004) general criteria for eligibility requirements: the student must have a disability, and that disability must be linked to a negative impact on the student's academic performance. Similar to the definitions for TBI, there likely is more to the story of how students are identified for services under the TBI category that will explain the discrepancy between how many students sustain a TBI each year compared to those actually receiving services in schools. At this time, however, we cannot determine exactly all of the elements involved in the extremely large gap between the thousands of U.S. students who have sustained brain injuries, and the disproportionately smaller amount of students who are receiving special education services under the category of TBI.

Limitations

This study is preliminary and examined only the state definitions and eligibility criteria as they appeared in state legislation and Department of Education policy and procedures manuals. It fails to capture how individual districts and schools carry out these rules given to them by their government and Departments of Education. Furthermore, when data were collected from the IDEA Data Center (2013), it was found that states do not report the level of severity of a TBI. It

is possible that students with a TBI that is less severe may be receiving services through Response to Intervention (RTI), which is a less intensive service permitted by IDEA (2004), but those data are not tracked or reported. Because RTI data are not reported by disability category, it is impossible to know to what extent, if any, the RTI intervention approach has helped explain the discrepancy of quite low service provision related to the actual population of students who sustain a TBI each year.

There are many potential explanations for the discrepancy between the estimated 475,000 (CDC, 2006) students sustaining a TBI each year, and the less than 25,000 who are receiving special education services under the TBI category. In addition to the reasons stated above, it is impossible for this study to account for the discrepancy by examining definitions and criteria alone, because data were not collected on the date when the definitions and eligibility criteria were enacted in each state, nor was there any available information on how the changes were disseminated and the actual changes implemented. Longitudinal data showing any changes in numbers of students made eligible for special education services under the TBI category, prior to and following any changes in TBI definition and eligibility criteria, are needed by researchers in order for them to begin to attribute such changes in numbers to the state's handling of specifics in TBI identification.

Additional issues continue to be of concern, related to TBI identification of students for special education eligibility. Savage, Depompei, Tyler, and Lash (2005), found in their review of important issues related to pediatric TBI, that special education is currently structured to identify students with disabilities primarily only in early childhood. Often, parents and families in the special education system have been in the system since their student was a toddler. A TBI can be sustained at any stage of a student's education, and does not fit neatly into the current system that

focuses on early identification of disability. Additionally, Savage et al. (2005), reported a lack of consistent intervention across educators; they attributed this to a potential lack of familiarity with TBI as a disability category. Clearly, the mere existence of state definitions and eligibility criteria does not in any way ensure that they are being consistently applied, especially if there is a lack of familiarity among educators with the unique identification attributes and special education service needs of students with TBI. These confounding variables may impact how comfortable and confident educators are in identifying students with TBI, which may impact the total identification of students.

Implications for the Future

These results lay the groundwork for further study of how students across the United States are accessing services under the IDEA (2004) TBI category. Further study is needed to examine potential barriers to identification of TBI in schools that go beyond looking at definitions and eligibility criteria. It is possible that definitions and criteria may make a difference, but dissemination of TBI-specific information can become lost in the virtual sea of information that IEP teams are required and expected to understand, remember, and track. Qualitative studies of exemplar states in the identification of students with TBI, such as Massachusetts, and possibly Colorado and Ohio, could help provide further directions for steps that can be taken to improve identification. In the meantime, this study can be used by parents, educational team members, and policy makers to reference what current policies and procedures do exist regarding identification and access to special education services for students, throughout the United States who have sustained a TBI. They can take this information to advocate for better access to services for students, and begin to critically analyze ways to improve service access in their communities, states, and across the nation.

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Appendix A

50 States Definitions and Eligibility Criteria for Traumatic Brain Injury

Alabama

Definition:

Alabama has the same components as the federal definition for traumatic brain injury (Alabama State Board of Education Administrative Code, 2013, § 290-8-9-.03-12-a).

Criteria:

- Documentation of a traumatic brain injury.
- Evidence that the traumatic brain injury adversely affects educational performance...
- Medical/neurological evaluation.
- Individual educational achievement evaluation to serve as initial post-trauma baseline measure (Alabama State Board of Education Administrative Code, 2013, § 290-8-9-.03-12-b-c).

Alaska

Definition:

Alaska has the same components as the federal definition for traumatic brain injury (Alaska Administrative Code, 2015, § 52.1302.p).

Eligibility:

To be eligible for special education and related services as a child with traumatic brain injury, a child must:

- Exhibit an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment or both, that adversely affects educational performance;

- Exhibit impairments in one or more areas, including cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech caused by open or closed head injuries;
- Not have brain injuries that are congenital or degenerative, or induced by birth trauma;
- Require special facilities, equipment, or methods to make the child's educational program effective;
- Be diagnosed by a physician as having a traumatic brain injury; and
- Be certified by the group established under 4 AAC 52.125(a) (2) as qualifying for and needing special education services (Alaska Administrative Code, 2015, § 52.1302.p).

Arizona

Definition:

Arizona has the same components as the federal definition for traumatic brain injury (Arizona Revised Statutes, 2015, § 15-761 (38)).

Eligibility:

1. Each public education agency shall establish, implement, disseminate to its school-based personnel, and make available to parents within its boundaries of responsibility, written procedures for the initial full and individual evaluation of students suspected of having a disability, and for the re-evaluation of students previously identified as being eligible for special education.
2. Procedures for the initial full and individual evaluation of children suspected of having a disability and for the re-evaluation of students with disabilities shall meet the

requirements of IDEA and regulations, and state statutes and State Board of Education rules.

3. The initial evaluation of a child being considered for special education, or the re-evaluation per a parental request of a student already receiving special education services, shall be completed as soon as possible, but shall not exceed 60 calendar days from receipt of informed written consent. If the public education agency initiates the evaluation, the 60-day period shall commence with the date of receipt of informed written consent and shall conclude with the date of the Multidisciplinary Evaluation Team (MET) determination of eligibility. If the parent requests the evaluation and the MET concurs, the 60-day period shall commence with the date that the written parental request was received by the public education agency and shall conclude with the date of the MET determination of eligibility.

4. The 60-day evaluation period may be extended for an additional 30 days, provided it is in the best interest of the child, and the parents and PEA agree in writing to such an extension. Neither the 60-day evaluation period nor any extension shall cause a re-evaluation to exceed the time-lines for a re-evaluation within three years of the previous evaluation.

5. The public education agency may accept current information about the student from another state, public agency, public education agency, or independent evaluator. In such instances, the Multidisciplinary Evaluation Team shall be responsible for reviewing and approving or supplementing an evaluation to meet the requirements identified in subsections (E)(1) through (7).

6. For the following disabilities, the full and individual initial evaluation shall include:

h. Traumatic brain injury: verification of the injury by a doctor of medicine (Arizona Administrative Code, 2008, § R7-2-401 (E)).

Arkansas

Definition:

Arkansas has the same components as the federal definition for traumatic brain injury (Arkansas Department of Education Special Education Unit, 2008).

Eligibility:

Required Evaluation Data:

- A) Social History
- B) Individual Intelligence (One required)
- C) Individual Achievement (One required)
- D) Adaptive Behavior (One required)
- E) Communicative Abilities (Both receptive and expressive required)
- F) Other
 - 1. Neuropsychological assessment (One required)
 - 2. Specific subject areas (Required--each suspected area of deficit must assessed)
 - 3. Medical (Required)
 - a. Physical examination
 - b. Specialized (Neurological, and others as indicated) (Arkansas Department of Education Special Education Unit, 2008)

California

Definition:

California has the same components as the federal definition for traumatic brain injury (California Code of Regulations, 2014).

Eligibility:

Students must have medical evidence of TBI that adversely affects educational performance (S. Grandinette, personal communication, November 6, 2014).

Colorado

Definition:

Colorado has the same components as the federal definition for traumatic brain injury (Exceptional Children's Educational Act, 2013).

Eligibility:

To be eligible as a child with Traumatic Brain Injury there must be evidence of the following criteria:

2.08 (10) (a) (i) Either medical documentation of a traumatic brain injury, or a significant history of one more significant trauma brain injuries reported by a reliable and credible source and/or corroborated by numerous reporters; and

2.08 (10) (a) (ii) The child displays educational impact most probably and plausibly related to the traumatic brain injury.

2.08 (10) (b) Additionally, to be eligible as a child with a Traumatic Brain Injury, the traumatic brain injury prevents the child from receiving educational benefit from general education as evidenced by one or more of the following:

- 2.08 (10) (b) (i) An inability to sustain attention and/or poor memory skills, including, but not limited to difficulty retaining short-term memory, long-term memory; working memory and incidental memory;
- 2.08 (10) (b) (ii) An inefficiency in processing, including but not limited to speed deficit and/or mental fatigue;
- 2.08 (10) (b) (iii) Deficits in sensory-motor skills that either effect one, or both, visual or auditory processing, and may include gross motor/or fine motor deficits;
- 2.08 (10) (b) (iv) Delays in acquisition of information, including new learning and visual-spatial processing;
- 2.08 (10) (b) (v) Difficulty with language skills, including but not limited to receptive language, expressive language and social pragmatics;
- 2.08 (10) (b) (vi) Deficits in behavior regulation, including but not limited to impulsivity, poor judgment, ineffective reasoning, and mental inflexibility;
- 2.08 (10) (b) (vii) Problems in cognitive executive functioning, including but not limited to difficulty with planning, organization, and/or initiation of thinking and working skills;
- 2.08 (10) (b) (viii) Delays in adaptive living skills, including but limited to difficulties with activities of daily living (ADL); and/or
- 2.08 (10) (b) (ix) Delays in academic skills, including but not limited to reading, writing, and math delays that cannot be explained by any other disability. They may also demonstrate an extremely uneven pattern in cognitive and achievement testing, work production and academic growth (Exceptional Children's Educational Act, 1 CCR 301-8, § 2.08(10), 2013).

Connecticut

Definition:

Connecticut has the same components as the federal definition for traumatic brain injury (T. Boudreau, personal communication, November 13, 2014).

Eligibility:

Connecticut does not specify eligibility requirements beyond what IDEA stipulates (T. Boudreau, personal communication, November 13, 2014).

Delaware

Definition:

Delaware has the same components as the federal definition for traumatic brain injury (Delaware Administrative Code, 2014, § 30-900-922).

Eligibility:

6.16 Eligibility Criteria for Traumatic Brain Injury. A qualified physician shall document that a child has a traumatic brain injury in order to be considered for special education and related services under the above definition.

6.16.1 The IEP team shall consider the child's need for special education and related services if the traumatic brain injury substantially limits one or more major activities of daily living.

6.16.2 The age of eligibility for children under this definition shall be from the third birthday until the receipt of a regular high school diploma or the end of the school year in which the student attains the age of twenty-one (21), whichever occurs first (Delaware Administrative Code, 2014, § 30-900-925).

Florida

Definition:

A traumatic brain injury means an acquired injury to the brain caused by an external physical force resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects educational performance. The term applies to mild, moderate, or severe, open or closed head injuries resulting in impairments in one (1) or more areas such as cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem-solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, information processing, or speech. The term includes anoxia due to trauma. The term does not include brain injuries that are congenital, degenerative, or induced by birth trauma.

(Florida Administrative Code, 2009, § 6A-6.030153).

Eligibility:

(2) General education interventions and activities. Prior to referral for evaluation, the requirements in subsection 6A-6.0331(1), F.A.C., must be met.

(3) Evaluation. In addition to the provisions in subsection 6A-6.0331(5), F.A.C., the evaluation for determining eligibility shall include the following:

- (a) A report of medical examination, within the previous twelve-month (12) period from a physician(s) licensed in Florida in accordance with Chapter 458 or 459, F.S., unless a report of medical examination from a physician licensed in another state is permitted in accordance with paragraph 6A-6.0331(3)(c), F.A.C. The physician's report must provide a description of the traumatic brain injury and any medical implications for instruction;

(b) Documented evidence by more than one person, including the parent, guardian, or primary caregiver, in more than one situation. The documentation shall include evidence of a marked contrast of pre and post-injury capabilities in one or more of the following areas: cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem solving; sensory, perceptual, and motor abilities, psychosocial behavior; physical functions; information processing or speech; and

(c) An educational evaluation that identifies educational and environmental needs of the student.

(4) The evaluation may also include a neuropsychological evaluation when requested by the exceptional student education administrator or designee.

(5) Criteria for eligibility. A student with a traumatic brain injury is eligible for exceptional student education, if the following criteria are met:

(a) Evidence of a traumatic brain injury that impacts one or more of the areas identified in subsection (1) of this rule.

(b) The student needs special education as defined in paragraph 6A-6.03411(1)(kk), F.A.C. (Florida Administrative Code, 2009, § 6A-6.030153).

Georgia

Definition:

Traumatic Brain Injury (TBI) refers to an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects the child's educational performance. The term applies to open or closed head injuries resulting in impairments which are immediate or delayed in one or more areas, such as cognition, language, memory, attention, reasoning,

abstract thinking, judgment, problem solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, speech and information processing. The term does not apply to brain injuries that are congenital or degenerative in nature, brain injuries induced by birth trauma (Georgia Administrative Code, 2010, §160-4-7-.05-27).

Eligibility:

(1) Evaluation for eligibility shall include the following.

(a) A summary of the child's pre-injury functioning status. This information may be available through previous formal evaluations, developmental assessments, achievement tests, classroom observations and/or grade reports.

(b) Verification of the TBI through the following:

1. A medical evaluation report from a licensed doctor of medicine indicating that TBI has occurred recently or in the past, or
2. Documentation of TBI from another appropriate source, such as health department or social services reports, or parents' medical bills/records.

(c) A neuropsychological, psychological or psychoeducational evaluation that addresses the impact of the TBI on the following areas of functioning:

1. Cognitive - this includes areas such as memory, attention, reasoning, abstract thinking, judgment, problem solving, speed of information processing, cognitive endurance, organization, receptive and expressive language and speed of language recall.
2. Social/Behavioral - this includes areas such as awareness of self and others, interaction with others, response to social rules, emotional responses to everyday situations and adaptive behavior.

3. Physical/Motor - this includes areas such as hearing and vision acuity, speech production, eye-hand coordination, mobility and physical endurance.

(2) Deficits in one or more of the above areas that have resulted from the TBI and adversely affect the child's educational performance shall be documented (Georgia Administrative Code, 2010, §160-4-7-.05-27).

Hawaii

Definition:

Hawaii has the same components as the federal definition for traumatic brain injury (B. Tanabe, personal communication, November 11, 2014).

Eligibility:

- A. The brain injury is **NOT** congenital, degenerative, or induced by birth trauma.
- B. There is **medical evidence** that the student has an **acquired injury to the brain**, caused by an **external physical force** resulting in total or partial functional disability and/or psychosocial impairment.

Explain: *(Document medical information that a traumatic brain injury has occurred, the cause of the injury and the resulting disability)*

- C. As a result of the brain injury, place an “X” in **one or more** of the areas below that is impaired.

- | | |
|------------------------------------|--|
| <input type="checkbox"/> Cognition | <input type="checkbox"/> Language |
| <input type="checkbox"/> Memory | <input type="checkbox"/> Attention |
| <input type="checkbox"/> Reasoning | <input type="checkbox"/> Abstract Thinking |
| <input type="checkbox"/> Judgment | <input type="checkbox"/> Problem Solving |

- | | | | |
|--------------------------|-------------------------------------|--------------------------|------------------------|
| <input type="checkbox"/> | Sensory, Perceptual & Motor Ability | <input type="checkbox"/> | Psychosocial Behavior |
| <input type="checkbox"/> | Physical Functions | <input type="checkbox"/> | Information Processing |
| <input type="checkbox"/> | Speech | | |

Explain: *(Describe the relationship between the impairment(s) selected above to the student's academic and/or behavioral problems.)*

ADVERSE EFFECT: *(Explain the unique educational difficulties and/or challenges of the traumatic brain injury on the student's educational performance.)*

Based on information gathered from a variety of sources the Traumatic Brain Injury adversely affects *(student's name here)* educational performance and participation in appropriate activities (Hawaii Department of Education, 2014).

Idaho

Definition:

Idaho has the same components as the federal definition for traumatic brain injury (Idaho State Department of Education, 2015, p. 67).

Eligibility:

State Eligibility Criteria for Traumatic Brain Injury: An evaluation team will determine that a student is eligible for special education services as a student who has a traumatic brain injury when all of the following criteria are met:

- a. An evaluation that meets the procedures outlined in Section 5 of this chapter has been conducted.
- b. The student has an acquired injury to the brain caused by an external physical force resulting in a total or partial functional disability or psychosocial impairment, or both.

- c. The student has documentation of a traumatic brain injury.
- d. The student's condition adversely affects educational performance.
- e. The student needs specially designed instruction. (Idaho State Department of Education, 2015, p. 67).

Illinois

Definition:

Illinois has the same components as the federal definition for traumatic brain injury (Illinois State Board of Education, 2009).

Eligibility:

“It is the IEP team’s decision regarding the assessments and reports being sufficient to make a decision on eligibility (D. Andel, personal communication, January 13, 2015).”

Indiana

Definition:

Indiana has the same components as the federal definition for traumatic brain injury (Indiana Administrative Code, 2014, §511-7-41-13).

Eligibility:

(c) Eligibility for special education as a student with a traumatic brain injury shall be determined by the student's CCC. This determination shall be based on the multidisciplinary team's educational evaluation report described in 511 IAC 7-40-5(e), which includes the following:

(1) An assessment of the following:

(A) Cognitive ability and functioning that must include at least one (1) of the following:

- (i) An individually administered norm-referenced assessment.
- (ii) If adequate information cannot be obtained via an individually administered norm-referenced assessment, a criterion-referenced assessment that:

- (AA) has been designed or may be adapted or modified for use with students who have a traumatic brain injury; and

- (BB) is administered by a professional or team of professionals with knowledge of assessment strategies appropriate for the student.

- (B) Current academic achievement as defined at 511 IAC 7-32-2.

- (C) Assessments of functional skills or adaptive behavior across various environments from multiple sources.

(2) A social and developmental history that may include, but is not limited to, the following:

- (A) Communication skills.

- (B) Social interaction skills.

- (C) Motor skills.

- (D) Responses to sensory experiences.

- (E) Relevant family and environmental information.

(3) Available medical information that is educationally relevant

(4) Any other assessments and information, collected prior to referral or during the educational evaluation, necessary to:

- (A) determine eligibility for special education and related services; and

(B) inform the student's CCC of the student's special education and related services needs (Indiana Administrative Code, 2014, §511-7-41-13).

Iowa

Definition:

Iowa has the same components as the federal definition for traumatic brain injury (Iowa Administrative Code, 2011, §281-41).

Eligibility:

Iowa does not have separate eligibility criteria for TBI (Administrative Code, 2011, §281-41.111).

Kansas

Definition:

Kansas has the same components as the federal definition for traumatic brain injury (Kansas Administrative Regulations, 2008, §91-40-1).

Eligibility:

Prong 1: Does the student exhibit an exceptionality? Indicators:

For meeting this prong of eligibility, the team must consider information and have data to support at least 1 indicator from each of the following categories:

1. Record review, interview, observation, and/or tests indicates that the student has an acquired injury to the brain (applies to both open or closed head injuries, including near drowning) caused by an external physical force that has resulted in total or partial functional disability or psychosocial impairment, or both, that adversely affects educational performance

- Record review, interviews, observations, and/or tests in one or more areas (cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech) indicate student's skill level is much below that of peers
- Record review and/or interview indicates the brain injury is not congenital or degenerative or induced by birth trauma
- Record review and/or interview indicate the brain injury is not the result of brain tumors, brain infections, cerebral vascular accident (strokes), or poisonings.

2. Record review, interview, observation, and/or tests indicate the injury adversely affects the student's educational performance

- Progress monitoring data displayed on charts or graphs shows slow rate of growth in educational performance despite provision of intense, explicit instructional interventions
- Progress monitoring data displayed on charts or graphs shows student is

Other Supporting Information: Records contain medical information which provides evidence of traumatic brain injury

Prong 2: Does the child need special education? Indicators:

- Despite modifications in instruction, curriculum, and environment, student's rate of learning is significantly less than peers

- Despite modifications in instruction, curriculum, and environment, student’s educational performance in various age appropriate environments is significantly delayed from peers
- Student progress monitoring data indicates intense or sustained resources are needed to support interventions (e.g. specific assistance, modifications, adaptations, or other supports) necessary to accommodate the needs resulting from the injury
- Despite modifications of instruction, curriculum, and environment, the student does not make sufficient progress to meet age or state-approved grade-level standards across curricular areas
- Student progress monitoring data show that student’s behavior of concern is resistant to targeted supplemental and intensive interventions
- Despite implementation of intensive interventions, which include purposeful instructional design and delivery, prioritized content, protected time and grouping, and performance monitoring, the student does not make sufficient progress to meet age or state-approved grade-level standards in one or more areas (Kansas State Department of Education, 2011).

Kentucky

Definition:

Kentucky has the same components as the federal definition for traumatic brain injury (Kentucky Administrative Regulations, 2008, 707 KAR 1:280).

Eligibility:

- 1) Evaluation information collected across multiple settings that verifies an acquired injury to the brain caused by an external physical force, resulting in total or partial functional disability or psychosocial impairments, or both, and is NOT a congenital, degenerative, or brain injury induced by birth trauma. Traumatic brain injury is evidenced by information that indicates an open or closed head injury resulting in an impairment in one or more of the following areas: Cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem solving, sensory, perceptual, motor abilities, psychosocial behavior, physical functions, information processing and speech.
- 2) A current, educationally relevant statement, completed by a qualified professional verifies the existence of a traumatic brain injury. The diagnosis and extent of the brain injury must be given.
- 3) Evaluation information confirms there is an adverse effect of education performance.
- 4) Evaluation information confirms that lack of instruction in reading and/or math was not a determinant factor in the eligibility decision.
- 5) Evaluation information confirms that limited English proficiency was not a determinant factor in the eligibility decision (Kentucky Department of Education, 2011).

Louisiana

Definition:

Louisiana has the same components as the federal definition for traumatic brain injury (Louisiana Department of Education, 2004).

Eligibility:

B. Criteria for Eligibility. Evidence of criteria listed in Paragraphs 1 and 2 must be met for a student to be classified as having a Traumatic Brain Injury:

1. documented medical evidence of an external insult to the brain causing an impairment in accordance with the definition exists; and
2. the impaired functioning significantly affects educational performance.

C. Procedures for Evaluation. Conduct all procedures described under §513, Evaluation Components.

D. Additional procedures for evaluation:

1. medical documentation that there has been an external insult to the brain, which causes an impairment to the cognitive, physical, behavioral or emotional functioning of the individual. A health assessment shall be conducted by a school nurse or other qualified personnel when the medical report indicates the student has an impairment requiring health technology, health management, or health treatments including a special diet or medication, or needs assistance with activities of daily living;
2. a psychological assessment conducted by a certified school psychologist to determine the status of cognitive, behavioral, and emotional functioning;

3. a speech/language evaluation conducted by a speech/language pathologist to determine whether there are speech and/or language difficulties;
4. any other assessment procedures deemed necessary by the multidisciplinary team (Louisiana Department of Education, 2004, p. 23).

Maine

Definition:

Maine has the same components as the federal definition for traumatic brain injury (Maine Department of Education, 2015).

Eligibility:

Maine does not have eligibility criteria specific to TBI (Maine Department of Education, 2015).

Maryland

Definition:

Maryland has the same components as the federal definition for traumatic brain injury (Maryland Disability Law Center, 2009).

Eligibility:

Maryland has not established separate criteria beyond what is required by IDEA (Personal communication, December 3, 2014).

Massachusetts

Definition:

Neurological Impairment - The capacity of the nervous system is limited or impaired with difficulties exhibited in one or more of the following areas: the use of memory, the control and use of cognitive functioning, sensory and motor skills, speech, language, organizational skills, information processing, affect, social skills, or basic life functions.

The term includes students who have received a traumatic brain injury (Code of Massachusetts Regulations, 2014, §603-28.02 7 (e)).

Eligibility:

Massachusetts Maine does not have eligibility criteria specific to TBI (S. Whitman, personal communication, December 3, 2014).

Michigan

Definition:

Michigan has the same components as the federal definition for traumatic brain injury (Michigan Administrative Rules for Special Education, 2013, R 340.1716).

Eligibility:

A determination of disability shall be based upon a full and individual evaluation by a multidisciplinary evaluation team, which shall include an assessment from a family physician or any other approved physician as defined in 1978 PA 368, MCL 333.1101 et seq. (Michigan Administrative Rules for Special Education, 2013, R 340.1716).

Minnesota

Definition:

Minnesota has the same components as the federal definition for traumatic brain injury (Minnesota Administrative Code, 2005, §3525.1348).

Eligibility:

The team shall determine that a pupil is eligible and in need of special education and related services if the pupil meets the criterion in item A and the criteria in items B and C as documented by the information gathered according to item D:

A. There is documentation by a physician of a medically verified traumatic brain injury.

B. There is a functional impairment attributable to the traumatic brain injury that adversely affects educational performance in one or more of the following areas: intellectual-cognitive, academic, communication, motor, sensory, social-emotional-b Examples of functional impairments which may adversely affect educational performance are:

(1) intellectual-cognitive, for example, impaired:

- (a) attention or concentration;
- (b) ability to initiate, organize, or complete tasks;
- (c) ability to sequence, generalize, or plan;
- (d) insight/consequential thinking;
- (e) flexibility in thinking, reasoning, or problem-solving;
- (f) abstract thinking;
- (g) judgment or perception;

- (h) long-term or short-term memory;
 - (i) ability to acquire or retain new information;
 - (j) ability to process information;
- (2) academic, for example:
- (a) marked decline in achievement from preinjury levels;
 - (b) impaired ability to acquire basic skills (reading, written language, mathematics); behavioral, and functional skills-adaptive behavior.
 - (c) normal sequence of skill acquisition which has been interrupted by the trauma as related to chronological and developmental age;
- (3) communication, for example:
- (a) impaired ability to initiate, maintain, restructure, or terminate conversation;
 - (b) impaired ability to respond to verbal communication in a timely, accurate or efficient manner;
 - (c) impaired ability to communicate in distracting or stressful environments;
 - (d) impaired ability to use language appropriately (requesting information, predicting, analyzing, or using humor);
 - (e) impaired ability to use appropriate syntax;
 - (f) impaired abstract or figurative language;
 - (g) perseverative speech (repetition of words, phrases, or topics);
 - (h) impaired ability to understand verbal information;
 - (i) impaired ability to discriminate relevant from irrelevant information;

- (j) impaired voice production/articulation (intensity, pitch, quality, apraxia, or dysarthria);
- (4) motor, for example, impaired:
- (a) mobility (balance, strength, muscle tone, or equilibrium);
 - (b) fine or gross motor skills;
 - (c) speed of processing or motor response time;
 - (d) sensory, for example, impaired;
- (5) sensory, for example, impaired:
- (a) vision (tracking, blind spots, visual field cuts, blurred vision, or double vision);
 - (b) hearing (tinnitus, noise sensitivity, or hearing loss);
 - (c) social-emotional-behavioral, for example:
 - (a) impaired ability to initiate or sustain appropriate peer or adult relationships;
 - (b) impaired ability to perceive, evaluate, or use social cues or context appropriately;
 - (c) impaired ability to cope with over-stimulating environments, low frustration tolerance;
 - (d) mood swings or emotional ability;
 - (e) impaired ability to establish or maintain self-esteem;
 - (f) denial of deficits affecting performance;
 - (g) poor emotional adjustment to injury (depression, anger, withdrawal, or dependence);

- (h) impaired ability to demonstrate age-appropriate behavior;
 - (i) impaired self-control (verbal or physical aggression, impulsivity, or disinhibition);
 - (j) intensification of preexistent maladaptive behaviors or disabilities;
- (7) functional skills-adaptive behavior, for example, impaired:
- (a) ability to perform developmentally appropriate daily living skills in school, home, leisure, or community setting (hygiene, toileting, dressing, eating);
 - (b) ability to transfer skills from one setting to another;
 - (c) orientation (places, time, situations);
 - (d) ability to find rooms, buildings, or locations in a familiar environment;
 - (e) ability to respond to environmental cues (bells, signs);
 - (f) ability to follow a routine;
 - (g) ability to accept change in an established routine;
 - (h) stamina that results in chronic fatigue.

C. The functional impairments are not primarily the result of previously existing:

- (1) visual, hearing, or motor impairments;
- (2) emotional or behavioral disorders;
- (3) developmental disabilities;
- (4) language or specific learning disabilities;
- (5) environmental or economic disadvantage;
- (6) cultural differences.

D. Information/data to document a functional impairment in one or more of the areas in item B must, at a minimum, include one source from Group One and one source from Group Two:

(1) GROUP ONE:

- (a) checklists;
- (b) classroom or work samples;
- (c) educational/medical history;
- (d) documented, systematic behavioral observations;
- (e) interviews with parents, student, and other knowledgeable individuals;

(2) GROUP TWO:

- (a) criterion-referenced measures;
- (b) personality or projective measures;
- (c) sociometric measures;
- (d) standardized assessment measures; (academic, cognitive, communication, neuropsychological, or motor) (Minnesota Administrative Code, 2005, §3525.1348).

Mississippi

Definition:

Mississippi has the same components as the federal definition for traumatic brain injury (Mississippi Department of Education, 2013).

Eligibility:

When the evaluation team is considering eligibility under the Traumatic Brain Injury category, the comprehensive evaluation report(s) and/or eligibility determination report must include:

A. Information from a variety of sources (e.g., assessments, evaluations, the student's teacher(s), parents and/or caregivers) who are familiar with the student's educational differences in functioning prior to and following the injury, if applicable, in the following areas:

1. cognition;
2. language;
3. memory;
4. attention;
5. reasoning;
6. abstract thinking;
7. judgment;
8. problem-solving;
9. sensory, perceptual and motor abilities;
10. psychosocial behavior;
11. physical functions;

12. information processing; and/or

13. speech.

B. A description of the acquired brain injury and cause of the injury; and

C. Reports from physicians, providers of rehabilitation services, and/or other healthcare providers describing precautions, limitations, and recommendations to consider when planning educational services, if available (Mississippi Department of Education, 2013, p. 324-325).

Missouri

Definition:

Missouri has the same components as the federal definition for traumatic brain injury (Missouri Department of Elementary & Secondary Education, 2013).

Eligibility:

A child has a Traumatic Brain Injury when: A. a traumatic brain injury/head injury has been diagnosed by a licensed physician or through a neuropsychological assessment, and B. the student's educational performance is adversely affected by deficits in acquisition, retention, and/or generalization of skills. Students with a brain injury may have rapidly changing profiles, therefore, educational assessment should include current documentation of the student's functional capabilities and indicate deficits in one or more of the following areas: 1) building or maintaining social competence; 2) performance of functional daily living skills across settings; 3) the ability to acquire and retain new skills; and, 4) the ability to retrieve prior information.

Professional Judgment: A child may also be deemed eligible if the child displays characteristics of TBI even though a medical diagnosis of head injury has not been made

by a physician. In such cases, substantial data to document the medical basis for a head injury must be present in the evaluation report (Missouri Department of Elementary & Secondary Education, 2013, p. 27-28).

Montana

Definition:

Montana has the same components as the federal definition for traumatic brain injury (Administrative Rules of Montana, 2000, §10.16.3021)

Eligibility:

(1) The student may be identified as having traumatic brain injury if the student has an acquired injury to the brain caused by external physical force which adversely affects the student's functional or psychosocial ability or both and the student's ability to learn or participate in the local educational agency's education program.

(2) The term traumatic brain injury applies to open or closed head injuries resulting in impairments in one or more areas such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psycho-social behavior; physical function; information processing; and speech.

(3) The student may not be identified as having a traumatic brain injury if the injury to the brain is congenital, degenerative, or caused by birth trauma.

For initial evaluations of traumatic brain injury, a student is required to be evaluated by a school psychologist and speech-language pathologist (Administrative Rules of Montana, 2000, §10.16.3021; Administrative Rules of Montana, 2007, §10.16.3321).

Nebraska

Definition:

Nebraska has the same components as the federal definition for traumatic brain injury (Nebraska Revised Statutes, 2006, §79-1118.01)

Eligibility:

In order for a child to be verified as having a traumatic brain injury, the evaluation should include the analysis and documentation of:

- A description of an event that has resulted in an acquired insult to the brain (generally provided by medical personnel or other specialist with knowledge of traumatic brain injury);
- Evidence of impaired functioning in one or more of the following areas that has been determined to produce an adverse effect on the child's educational or developmental performance:
 - Cognition (should include, but not be limited to attention, memory/learning, organization, problem solving, abstract reasoning, communication, judgment, visual perception, and auditory perception);
 - Sensory functioning;
 - Motor functioning (should include, but not be limited to motor sequencing, planning, and execution);
 - Behavior (should include, but not be limited to agitation, irritability, aggression, apathy, lack of insight, impulsivity, poor emotional control, disinhibition, secondary depression and withdrawal, and difficulties with social relationships)

- The severity of the impaired functions, which may vary across situations, activities and time. Where appropriate, the team must consider and document these variations.

Children with a traumatic brain injury represent a heterogeneous group. A physician's report alone is not sufficient to verify a child with traumatic injury. There must be documented evidence that there is an adverse effect in the educational performance/development for a child to be verified with traumatic brain injury.

Educational evaluation and assessment include a combination of, but are not limited to:

- Medical assessments
- History of developmental milestones
- Speech/language assessments
- Personality assessments
- Parent interviews/rating scales
- Individual achievement testing
- Classroom assessment data
- Norm-referenced testing data
- Criterion-referenced assessments
- District-wide assessments
- Curriculum-based assessments
- Observation and analysis of behavior
- Teacher anecdotal records
- Analysis of pre-injury academic performance and social/emotional performance
(Nebraska Department of Education, 2008, p. 206-207).

Nevada

Definition:

Nevada has the same components as the federal definition for traumatic brain injury (Nevada Administrative Code, 2011, §388.134).

Eligibility: NAC 388.407

1. A pupil is eligible for special services and programs of instruction if the eligibility team, comprised of the persons described in subsection 2, concludes that the pupil has a traumatic brain injury and, by reason thereof, needs special education and related services.
2. The eligibility team must consist of:
 - (a) A school psychologist;
 - (b) A teacher of special education or a person with a specialized knowledge of traumatic brain injuries;
 - (c) The regular teacher of the pupil or, if none, a person qualified to teach the pupil;
 - (d) A specialist of speech and language;
 - (e) A school nurse or other person who is qualified to assess the health of the pupil;
 - (f) A parent of the pupil; and
 - (g) One or more persons with sufficient knowledge of the pupil to interpret information relating to the social, emotional, developmental and familial condition of the pupil. Such persons may include an administrator of the school, a nurse, a counselor, a school psychologist or any other certificated or licensed professional.
3. In making a determination pursuant to subsection 1, the eligibility team shall consider, without limitation:
 - (a) Medical documentation of the injury;

- (b) The pupil's educational performance relative to a normative population;
- (c) The pupil's strengths and weaknesses; and
- (d) If possible, the pupil's educational performance before and after the pupil acquired the injury.

4. In addition to the considerations required pursuant to subsection 3, the eligibility team shall conduct an evaluation of the pupil to determine whether the pupil is eligible for special services and programs of instruction pursuant to this section. Such an evaluation must assess the:

- (a) Health;
 - (b) Developmental history;
 - (c) Cognitive abilities;
 - (d) Social and emotional condition;
 - (e) Academic achievement;
 - (f) Language and motor skills;
 - (g) Sensory and perceptual abilities; and
 - (h) Attention, comprehension, judgment and problem-solving skills, of the pupil
- (Nevada Administrative Code, 2011, §388.407).

New Hampshire

Definition:

New Hampshire uses the federal definition for TBI and the following definition for ABI:
“Brain injury that occurs after birth. It includes injury sustained by infection, disease, or lack of oxygen resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance and

requiring special education and or related services (New Hampshire Rules for the Education of Children with Disabilities, 2014, §300.8; Ed 1102).”

Eligibility:

The same criteria is listed for TBI and ABI. Students must be assessed for academic performance, health by a licensed professional, and a minimum of 2 of the following assessments: adaptive behavior, communicative skills, intelligence, or social/emotional status (New Hampshire Rules for the Education of Children with Disabilities, 2014, §300.8; Ed 1107).

New Jersey

Definition:

"Traumatic brain injury" corresponds to "neurologically impaired" and means an acquired injury to the brain caused by an external physical force or insult to the brain, resulting in total or partial functional disability or psychosocial impairment, or both. The term applies to open or closed head injuries resulting in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual and motor abilities; psychosocial behavior; physical functions; information processing; and speech (New Jersey Administrative Code, 2015, 6A:14-3.5).

Eligibility:

New Jersey does not have specific criteria for TBI (New Jersey Administrative Code, 2015, §6A:14-3.5).

New Mexico

Definition:

New Mexico has the same components as the federal definition for traumatic brain injury (New Mexico Public Education Department, 2011).

Eligibility:

The evaluation for TBI must address functioning in terms of cognition, language, memory, attention, reasoning, abstract thinking, judgment, problem-solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, information processing, and speech. In order to address these areas, the following documentation, assessments, and/or evaluations must be reviewed and/or conducted.

The list below provides the evaluation team with highly recommended components of an initial evaluation to determine whether a student is eligible for and in need of special education and related services under the eligibility category of TBI:

1. For preschool-aged children review existing screening data and/or any previously conducted evaluation data. For school age children review and consider the complete SAT file documentation. Specific to this eligibility category, it is vital to obtain any pre-injury information that may be available.

This would include information regarding functioning at school, home, and in the community.

2. Gather and analyze developmental/educational, medical, family, and social history, including an interview with the parent(s)/guardian(s).

3. Obtain medical or historical documentation of a TBI, including premorbid functioning, if available. Note: A parent may report that a TBI has occurred, but

medical or historical documentation has not been provided. If this documentation cannot be obtained, information reported by the parents needs to be considered. In addition, the EDT might consider obtaining current medical and/or neuropsychological evaluation(s) to gain further insight into the child's brain functioning. Final eligibility under the category of TBI should not be made unless sufficient data supports the eligibility decision.

4. Conduct a speech/language/communication assessment.
5. Conduct an assessment of cognitive abilities.
6. Complete a systematic review of individual academic achievement, including formal and informal measures.
7. Administer an individual academic achievement assessment in the area(s) of suspected disability for which instruction and intervention have been documented.
8. Conduct a sensory processing and motor skills assessment.
9. Obtain adaptive behavior information in the areas of conceptual, social, and practical skills.
10. Conduct direct observations across multiple settings.
11. Conduct a transition assessment, including a vocational evaluation (as appropriate).
12. When an evaluation in any area is unable to be completed using standardized measures, the evaluation team should use alternative methods of obtaining data to gather information about the child's present levels of performance.

NOTE: Due to the sudden onset and associated medical complications of TBI, completion of formal evaluation measures may not be possible or appropriate at the time

of initial eligibility determination. This should not delay the eligibility determination and/or provision of FAPE for these children

Eligibility Determination. For a child to be eligible to receive special education and related services under the eligibility category of traumatic brain injury, as defined by IDEA (2004), the

EDT must document that the child meets all of the following eligibility criteria:

1. The EDT has eliminated the possibility that lack of appropriate instruction in reading or math is a determinant factor. For preschool children, consider whether the child has had the opportunity to participate in developmentally appropriate early childhood experiences;
2. The EDT has eliminated the possibility that limited English proficiency is a determinant factor;
3. The EDT has determined that no other eligibility category better describes the child's disability; and
4. The assessment and evaluation demonstrate the child meets the requirements of the traumatic brain injury definition, including medical documentation or historical documentation of a TBI.

In addition, the EDT must document that the child demonstrates a need for special education and related services because, as a result of the disability, the child requires specially designed instruction in order to: (a) be involved in and make progress in the general education curriculum; (b) participate in extracurricular and other nonacademic activities; and/or (c) be educated and participate with other

children with disabilities and nondisabled children (New Mexico Public Education Department, 2011, p. 237-239).

New York

Definition:

Traumatic brain injury means an acquired injury to the brain caused by an external physical force or by certain medical conditions such as stroke, encephalitis, aneurysm, anoxia or brain tumors with resulting impairments that adversely affect educational performance. The term includes open or closed head injuries or brain injuries from certain medical conditions resulting in mild, moderate or severe impairments in one or more areas, including cognition, language, memory, attention, reasoning, abstract thinking, judgement, problem solving, sensory, perceptual and motor abilities, psychosocial behavior, physical functions, information processing, and speech. The term does not include injuries that are congenital or caused by birth trauma (Regulations of the Commissioner of Education, 2014, Section 200.1(zz)(12)).

Eligibility:

No eligibility requirements specific to TBI (Regulations of the Commissioner of Education, 2014, Section 200.4).

North Carolina

Definition:

Traumatic brain injury means an acquired injury to the brain caused by an external physical force or by an internal occurrence resulting in total or partial functional disability and/or psychosocial impairment that adversely affects a child's educational performance. Causes may include but are not limited to, open or closed head injuries,

cerebrovascular accidents (e.g., stroke, aneurysm), infections, kidney or heart failure, electric shock, anoxia, tumors, metabolic disorders, toxic substances, or medical or surgical treatments. The brain injury can occur in a single event or can result from a series of events (e.g., multiple concussions). Traumatic brain injury also can occur with or without a loss of consciousness at the time of injury. Traumatic brain injury may result in impairments in one or more areas, such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. Traumatic brain injury does not apply to brain injuries that are congenital or degenerative, but can include brain injuries induced by birth trauma (Policies Governing Services for Children with Disabilities, 2014, NC 1500-2.4).

Eligibility:

(13) Traumatic Brain Injury.

(i) Required screenings and evaluations:

(A) Hearing screening;

(B) Vision screening;

(C) Speech/language screening;

(D) Two scientific research-based interventions to address academic and/or behavioral skill deficiencies and documentation of the results of the interventions, including progress monitoring documentation.

* Note: Screenings (A) through (D) may be waived for students who have been medically diagnosed with traumatic brain injury and who have received

medical and/or rehabilitative services in a medical or rehabilitation program or setting within the previous twelve months.

(E) Review of medical history and records;

(F) Review of educational history and records;

(G) Summary of conference(s) with parents or documentation of attempts to conference with parents;

(H) Social/developmental history;

(I) Observation across settings to assess academic and functional skills;

(J) Educational evaluation;

(K) Psychological evaluation for traumatic brain injury; and

(L) Motor evaluation.

(ii) To be determined eligible in the disability category of traumatic brain injury, a written verification by a licensed physician or a licensed psychologist, appropriately practicing in the specialty of neuropsychology, which the child has sustained an injury from which brain injury can be inferred must be obtained. No time limits exist for written verification.

(iii) Psychological evaluation for traumatic brain injury must be conducted by school psychologists licensed by the State Department of Public Instruction, or by psychologists who are appropriately practicing in the specialty of neuropsychology and are licensed by the North Carolina State Board of Examiners of Practicing Psychologists. All psychological evaluations for Traumatic Brain Injury must be current within one year. All school psychologists providing assessment of children with Traumatic Brain Injury must meet the

guidelines of the Exceptional Children Division for training in the assessment of Traumatic Brain Injury and be listed on the Exceptional Children Division's registry of approved providers (hereafter referred to as the registry.)

(iv) The disability must:

(A) Have an adverse effect on educational performance, and

(B) Require specially designed instruction (Policies Governing Services for Children with Disabilities, 2014, NC 1503-13).

North Dakota

Definition:

North Dakota has the same components as the federal definition for traumatic brain injury (North Dakota Department of Public Instruction, 2007).

Eligibility:

North Dakota does not have eligibility criteria specific for TBI. (K. McDonough, personal communication, December 11, 2014).

Ohio

Definition:

"Traumatic brain injury" means an acquired injury to the brain caused by an external physical force or by other medical conditions, including but not limited to stroke, anoxia, infectious disease, aneurysm, brain tumors and neurological insults resulting from medical or surgical treatments. The injury results in total or partial functional disability or psychosocial impairment or both, that adversely affects a child's educational performance. The term applies to open or closed head injuries, as well as to other medical conditions that result in acquired brain injuries. The injuries result in impairments in one

or more areas such as cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech. The term does not apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma. (Ohio Administrative Code, 2006, §3301-51-02 (10)(d)(xii)).

Eligibility:

Officially medical documentation is required. The injury results in total or partial functional disability or psychosocial impairment (those thoughts, feelings, and behaviors with and towards others), or both, that adversely affects a child's educational performance. Brain injury presents a spectrum of disorder. The term applies to open or closed head injuries. The term TBI is used for head injuries that result in impairments in one or more areas such as:

- cognition
- language
- memory
- attention
- reasoning
- abstract thinking
- judgment
- problem-solving
- sensory, perceptual, and motor abilities
- psychosocial behavior
- physical functions

- information processing
- speech (B. Nelson, personal communication, December 9, 2014)

Oklahoma

Definition:

Oklahoma has the same components as the federal definition for traumatic brain injury (Oklahoma State Department of Education, 2013).

Eligibility:

Components of a Comprehensive Evaluation:

- Medical information
- Communication/language
- Cognitive/intellectual
- Social/emotional/behavioral
- Sensorimotor/perceptual
- Adaptive behavior and social or cultural background
- Academic/achievement/developmental

Evaluation Considerations

Medical information from a licensed physician or an advanced registered nurse practitioner (ARNP) should be obtained regarding relevant medical and neurological findings, medications, the student's current status and prognosis, and any information pertinent to planning the student's educational program. Information is necessary to establish that the student has an acquired brain injury which occurred after birth and was caused by an external force (including the external force of near-drowning). Formal evaluation of cognitive/intellectual and academic/achievement (or age appropriate

developmental activities for preschool students) should be supported by functional and ecological assessment of the student's ability to generalize and apply skills in various settings. Samples and observations of academic related tasks may provide meaningful direction in planning for the gradual reintroduction to the academic school setting. The student's educational and developmental history prior to the injury also provides important information for educational planning and expectations for prognosis. Neuropsychological factors and possible implications should be considered in evaluating the student's abilities. In addition to implications for cognitive/intellectual evaluation, the student's functioning in the areas of sensorimotor/perceptual processing and communication/language abilities should be assessed with this focus. The abilities of the student to effectively perceive, process, integrate, recall, respond to information, and communicate are important considerations. The evaluation of the student's social/emotional/behavioral and adaptive behavior status may include functional assessment in various settings. If the student has not yet reentered school, adaptive behavior may need to be assessed in settings or in response to tasks that are as similar to the school setting or other age appropriate settings, as possible. Assessment of the student's adaptive behavior in the home or other settings and social/emotional/behavioral functioning with family and peers will provide valuable information for program planning (Oklahoma State Department of Education, 2013, p. 81-82).

Oregon

Definition:

Oregon has the same components as the federal definition for traumatic brain injury (Oregon Administrative Rules, 2013, §581-015-2000).

Eligibility:

(1) If a child is suspected of having a traumatic brain injury, the following evaluation must be conducted:

(a) Medical or health assessment statement. A medical statement or a health assessment statement indicating that an event may have resulted in a traumatic brain injury as defined in subsection (2)(A);

(b) Psychological assessment. A comprehensive psychological assessment using a battery of instruments intended to identify deficits associated with a traumatic brain injury administered by a licensed school psychologist, a psychologist licensed by a State Board of Psychological Examiners, or other individuals who have the training and experience to administer and interpret the tests within the battery;

(c) Other.

(A) Other assessments including, but not limited to, motor assessments if the child exhibits motor impairments; communication assessments if the child exhibits communication disorders; and psychosocial assessments if the child exhibits changed behavior. These assessments must be completed by educators knowledgeable in the specific area being assessed;

(B) Other information relating to the child's suspected disability, including pre-injury performance and a current measure of adaptive ability;

(C) An observation in the classroom and in at least one other setting;

(D) Any additional assessments necessary to determine the impact of the suspected disability:

(i) On the child's educational performance for a school-age child;

(ii) On the child's developmental progress for a preschool child;

(E) Any additional evaluations or assessments necessary to identify the child's educational needs.

(2) To be eligible as a child with a traumatic brain injury, the child must meet all of the following minimum criteria:

(a) The child has an acquired injury to the brain caused by an external physical force;

(b) The child's condition is permanent or expected to last for more than 60 calendar days;

(c) The child's injury results in an impairment of one or more of the following areas:

(A) Communication;

(B) Behavior;

(C) Cognition, memory, attention, abstract thinking, judgment, problem-solving, reasoning, and/or information processing;

(D) Sensory, perceptual, motor and/or physical abilities.

(3) For a child to be eligible for special education services as a child with a traumatic brain injury, the eligibility team must also determine that:

(a) The child's disability has an adverse impact on the child's educational performance; and

(b) The child needs special education services as a result of the disability.

(4) Students with brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma, are not eligible under the category of traumatic brain injury but may be eligible under a different category under this rule (Oregon Administrative Rules, 2013, §581-015-2175).

Pennsylvania

Definition:

Pennsylvania has the same components as the federal definition for traumatic brain injury (L. Dell, personal communication, December 9, 2014).

Eligibility:

“In order to receive special and related services, the student must be determined eligible for special education by an evaluation team and under the procedures in Sections 300.300-300.311 in IDEA” (L. Dell, personal communication, December 9, 2014).

Rhode Island

Definition:

Rhode Island has the same components as the federal definition for traumatic brain injury (Rhode Island Department of Education, 2008).

Eligibility:

To be considered a child with a disability for purposes of IDEA, a child must actually need special education services. Special education is a specially designed education that provides for an educational setting and curriculum that addresses the unique needs of a child with a disability. If the needs associated with a particular child's disability are met through the regular curriculum, then the child is not a "child with a disability" for purposes of IDEA. This does not mean that a child does not have a disability, but rather that the child's disability does not fit the definition of disability within IDEA. Services may still be available under 504 or the ADA.

When considering whether a child needs special education services you may discover that certain services, called related services, are not considered special education services and need for those services alone will not qualify a child for services under IDEA. The distinction between special education itself and services merely related to special education is by no means clear. In theory, related services involve transportation, testing, counseling, and other services that assist a child in benefiting from the special education services themselves (Rhode Island Department of Education, 2008, p. 8-9).

South Carolina

Definition:

South Carolina has the same components as the federal definition for traumatic brain injury (South Carolina Code of Regulations, 2004, §43-243.1).

Eligibility:

- 1) There is evidence that the child had a traumatic brain injury.
- 2) The adverse effects of the traumatic brain injury on the child's educational performance require specialized instruction and/or related services

A traumatic brain injury may be evidenced in the following required evaluation components:

- A medical diagnosis of a traumatic brain injury by a licensed physician.
- In the absence of an existing medical diagnosis or a prior diagnosis of a brain injury, both of the following are furnished: a documented history (e.g., parent/caregiver interview, medical history, brain injury screening) that evidences trauma to the head resulting in impairments according to the definition of the term "traumatic brain injury" and a cognitive profile that is consistent with the brain injury to include assessment of the student's language processing and use (not receptive or expressive vocabulary tests), memory, attention, reasoning, abstract thinking, judgment, problem-solving skills, academic achievement, adaptive behavior, auditory perception, and visual perception.

- The diagnosis may not be used as the sole criterion for determining eligibility.

There must be evidence that the traumatic brain injury adversely affects the child's educational performance (South Carolina State Department of Education, Office of Exceptional Children. (2011).

South Dakota

Definition:

South Dakota has the same components as the federal definition for traumatic brain injury (South Dakota Rules, 1996, §24:05:24.01:29).

Eligibility:

Adverse effects in educational performance must be verified through the multidisciplinary evaluation process as defined in §24:05:13:01 (18)

Areas to be Assessed:

- Ability
- Medical records of documentation of brain injury
- Academic achievement
- Adaptive Behavior to include social skills
- If the team decides there are other areas of suspected disability, other evaluations must be given, such as speech, language, gross motor, fine motor or attention

NOTE: Skill-based assessment information is to be gathered for each skill area affected by the disability (South Dakota Department of Education, 2014, p. 133).

Tennessee

Definition:

Tennessee has the same components as the federal definition for traumatic brain injury (Tennessee Department of Education, 2014).

Eligibility:

Evaluation: The characteristics as identified in the Traumatic Brain Definition are present. Evaluations Procedures: Evaluation of Traumatic Brain Injury shall include the following:

- (1) appropriate medical statement obtained from a licensed physician;
- (2) parent/caregiver interview;
- (3) educational history and current levels of educational performance;
- (4) functional assessment of cognitive/communicative abilities;
- (5) social adaptive behaviors which relate to Traumatic Brain Injury;
- (6) physical adaptive behaviors which relate to Traumatic Brain Injury; and
- (7) documentation, including observation and/or assessment of how Traumatic Brain Injury adversely impacts the child's educational performance in his/her learning environment.

Evaluation Participants Information shall be gathered from the following persons in the evaluation of Traumatic Brain Injury:

- (1) the parent;
- (2) the child's general education teacher;
- (3) a licensed special education teacher;
- (4) a licensed physician; and

(5) other professional personnel, as indicated (Tennessee Department of Education, 2014).

Texas

Definition:

Texas has the same components as the federal definition for traumatic brain injury (Texas Commissioner's Rules, 2001, 19 T.A.C. § 89.1040)

Eligibility:

The multidisciplinary team that collects or reviews evaluation data in connection with the determination of a student's eligibility based on a traumatic brain injury must include a licensed physician, in addition to the licensed or certified practitioners specified in subsection (b)(1) of this section (Texas Commissioner's Rules, 2001, 19 T.A.C. § 89.1040).

Utah

Definition:

Utah has the same components as the federal definition for traumatic brain injury (S. Loving, personal communication, January 21, 2015).

Eligibility:

While there must be prior documentation by a physician that a student has an acquired injury to the brain caused by an external physical force, a team of qualified professionals and the student's parents determine eligibility.

(1) The traumatic brain injury must adversely affect the student's educational performance.

(2) The student with the traumatic brain injury must require special education and related services.

(3) The team must determine that traumatic brain injury is the student's primary disabling condition (S. Loving, personal communication, January 21, 2015).

Vermont

Definition:

Traumatic brain injury means an injury to the brain caused by an external physical force or by an internal occurrence such as a stroke or aneurysm, resulting in total or partial functional disability or psychosocial impairment, or both. The EPT shall obtain an opinion of a licensed physician as to the existence of a traumatic brain injury and its effect on the student's ability to function, as defined by the following criteria:

(1) The condition includes open or closed head injuries resulting in impairments in one or more areas, including cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual and motor abilities; psychosocial behavior; physical functions; information processing; and speech.

(2) The condition does not include brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma (State of Vermont Special Education Rules, 2013, 2362.1(k)).

Eligibility:

Eligibility criteria specific to TBI is noted in the above definition (State of Vermont Special Education Rules, 2013, 2362.1(k)).

Virginia

Definition:

Virginia has the same components as the federal definition for traumatic brain injury (Virginia Department of Education, 2010).

Eligibility:

Eligibility as a child with a traumatic brain injury, the group may determine that a child has a traumatic brain injury if: 1. The definition of “traumatic brain injury” is met in accordance with 8VAC20-81-10; and 2. There is an adverse effect on the child’s educational performance due to one or more documented characteristics of traumatic brain injury (Virginia Department of Education, 2010, p. 32).

Washington

Definition:

Washington has the same components as the federal definition for traumatic brain injury (Washington Administrative Code, 2013, §392-172A-01035).

Eligibility:

Washington does not have distinct eligibility criteria for TBI (Washington Administrative Code, 2013, §392-172A-03020).

West Virginia

Definition:

West Virginia has the same components as the federal definition for traumatic brain injury (West Virginia Department of Education, 2012).

Eligibility:

An eligibility committee will determine that a student is eligible for special education services as a student who has a traumatic brain injury when all of the following criteria are met:

1. The student has an acquired injury to the brain caused by an external physical force resulting in a total or partial functional disability or psychosocial impairment, or both as diagnosed by a licensed physician.
2. The student's condition adversely affects educational performance.
3. The student needs special education (West Virginia Department of Education, 2012, p. 40).

Wisconsin

Definition:

Wisconsin has the same components as the federal definition for traumatic brain injury (Wisconsin Administrative Code, 2010, PI 11.36(9)).

Eligibility:

(b) Children whose educational performance is adversely affected as a result of acquired injuries to the brain caused by internal occurrences, such as vascular accidents, infections, anoxia, tumors, metabolic disorders and the effects of toxic substances or

degenerative conditions may meet the criteria of one of the other impairments under this section.

(c) The results of standardized and norm—referenced instruments used to evaluate and identify a child under this paragraph may not be reliable or valid. Therefore, alternative means of evaluation, such as criterion—referenced assessment, achievement assessment, observation, work samples, and neuropsychological assessment data, shall be considered to identify a child who exhibits total or partial functional disability or psychosocial impairment in one or more of the areas described under par. (a).

(d) Before a child may be identified under this subsection, available medical information from a licensed physician shall be considered (Wisconsin Administrative Code, 2010, PI 11.36(9)).

Wyoming

Definition:

Wyoming has the same components as the federal definition for traumatic brain injury (Wyoming Special Education Rules, 2010, 7.4(d)(xii)).

Eligibility:

(A) Traumatic eligibility criteria: Eligibility is established through a comprehensive evaluation in accordance with the requirements of these rules. The initial evaluation shall be conducted by qualified professionals as determined appropriate by the school district or public agency. The initial evaluation process shall be comprehensive and address all areas of need resulting from the suspected disability. In accordance with these requirements, a child is identified as a child with a Traumatic Brain Injury if the following criteria are satisfied:

(I) Documentation from a physician, within the previous twelve (12) months, that the child has sustained a brain trauma (e.g., skull fracture, contusions, and/or bullet wound, etc.) resulting in the onset of an impairment; and

(II) Documentation that the Traumatic Brain Injury adversely affects the child's education performance in one (1) or more of the following areas: cognitive ability, social behavior, use of adaptive skills, physical ability, vision, hearing, or ability to communicate (Wyoming Special Education Rules, 2010, 7.4(d)(xii)).