

THE STATE OF SOUTH CAROLINA  
In The Supreme Court

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APPEAL FROM SPARTANBURG COUNTY  
Court of Common Pleas

Roger L. Couch, Circuit Court Judge

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Opinion No. 27230 (S.C. Sup. Ct. filed March 6, 2013)  
Appellate Case No. 2010-180906

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Michael D. Crisp, Jr., Employee, ..... Petitioner,

v.

SouthCo, Inc., Employer, and Pennsylvania National Mutual Casualty Insurance Co., Carrier ...  
..... Respondents.

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**BRIEF OF AMICUS CURIAE BRAIN INJURY ASSOCIATION OF SOUTH CAROLINA**

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**S.C. Supreme Court**

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- Traumatic Brain Injury Discharges by Year - The South Carolina Brain injury Association Report (Prepared by the South Carolina TBI Surveillance System) 2012 2 n.1, 11 n.9

## STATEMENT OF ISSUE ON APPEAL

Whether the decisions of the Court in Crisp and Sparks defining the term “physical brain damage” should be reheard, thus affording the Court the opportunity to redefine “physical brain injury” consistent with medical knowledge and terminology to describe acquired permanent impairment of brain function which constitutes a hindrance or obstacles to employment.

## STATEMENT OF THE CASE

### Brain Injury Association of South Carolina

The Brain Injury Association of South Carolina (BIA) is a nonprofit organization which was developed by persons with brain injury, their families, and concerned professionals in an effort to provide information and support to those who have experienced brain injury. Our mission is to advance brain injury prevention, research, treatment and education and to improve the quality of life for all individuals impacted by brain injury. Through advocacy, we bring help, hope and healing to millions of individuals living with brain injury, their families and the professionals who serve them.

BIA moves for leave to appear as Amicus Curiae in this case pursuant to Rule 213, SCACR. BIA would submit to the Court that this case presents a novel and significant question of law regarding a key provision in the Workers' Compensation Act regarding individuals who suffer work-related traumatic brain injuries. The decision of this Court in the two cases of Sparks and Crisp imperil these rights in a manner not intended by the Legislature nor by the Court.

In South Carolina approximately 61,000 people live with permanent disability from a traumatic brain injury. In 2011, 31,748 people were discharged from South Carolina hospitals with the diagnosis of traumatic brain injury. The likelihood of suffering some level of disability at discharge is projected as:<sup>1</sup>

Probable Disability (76-100%)	9.89% (3,141 people)
Possible Disability (50-75%)	3.06% (971 people)
Unlikely Disability (<50%)	87.05% (31,748 people)

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<sup>1</sup>Traumatic Brain Injury Discharges by Year - The South Carolina Brain injury Association Report (Prepared by the South Carolina TBI Surveillance System) 2012.

Many suffered traumatic brain injuries in the workplace. Not only does brain injury “blindsides” the person and their family, few people realize the extent of medical and rehabilitation care needed following an injury. As virtually every bodily organ and system is controlled by the brain, brain injuries impact the individual in myriad overlapping ways. Our state has relatively few resources to address the needs of persons with brain injury, thus making workers’ compensation benefits critical to provide for working families without using up benefits intended to care for non-work-related brain injuries.

The BIA is concerned that by conflating the statutory term “physical brain damage” with the medical term “severe,” the Court has effectively denied benefits to those whose brain injuries are medically classified as mild or moderate at the outset, yet nonetheless result in permanently disabling impairments.

Procedural History.

On March 6, 2013, the Court issued two opinions defining the term “physical brain damage” as used in S.C. Code Ann. § 42-9-10 (2007). See Sparks v. Palmetto Hardwood, Op. No. 27229 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 14, 19); and Crisp v. SouthCo Inc., Op. No. 27230 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 21). Petitioners in both cases filed Petitions for Rehearing which are currently pending before this Court. As these cases involve a matter of great public interest to the BIA and the people it serves, BIA hereby files this Amicus Brief in support of the Petitions for Rehearing in both cases.

Brain Injury Association of South Carolina relies on the Statements of the Case and Statements of the Facts as set forth in the Briefs of the parties in Sparks v. Palmetto Hardwood, Op.

No. 27229 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 14, 19), and Crisp v. SouthCo Inc., Op. No. 27230 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 21).

## ARGUMENT

**The Court should adopt a definition of “physical brain damage” that considers whether the work-related accident caused permanent physical damage to the brain resulting in impairments which contribute to a claimant's total and permanent disability.**

On March 6, 2013, the Court issued two opinions addressing “physical brain damage” in workers’ compensation. In Sparks, the Court held “we conclude that ‘physical brain damage’ as used in § 42-9-10(C) is physical brain damage that is both permanent and severe.” Sparks v. Palmetto Hardwood, Op. No. 27229 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 14, 19). In Crisp, the Court further explained that entitlement to lifetime compensation was predicated on “a brain injury so severe that the person could not subsequently return to suitable gainful employment.” Crisp v. SouthCo Inc., Op. No. 27230 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 21).

Both decisions sent shock waves throughout both the brain injury and workers’ compensation communities. The Court redefined the medical and legal understanding of brain injury which had been relied on by all sides for many years. The Court rejected virtually the entire lexicon used by medical doctors and neuropsychologists in favor of an unscientific and unworkable “severity” standard – a standard which conflicts with the medical terminology used by the very experts on which the Commission must rely.

The BIA respectfully believes the Court must have misapprehended the existing medical definitions, thus inadvertently defining “physical brain damage” using medical terms of art differently than the medical community. BIA respects and endorses several concepts from both opinions, particularly the recognition that brain damage can be objectively diagnosed with both clinical observations and neuropsychological testing. Similarly, BIA endorses the concept that

“physical brain damage” refers to a brain injury resulting in permanent impairments. The concern is that by using the term “severe,” the Court excluded mild and moderate brain injuries which result in disabling permanent impairments.

The Court’s confusion in this area arises out of some unfortunate dicta in some earlier decisions. The Court previously stated (in dicta):

Like the concept of disability generally, the concept of total disability has been influenced both by the medical model and by the earning capacity model. There are two situations in which the Commission can find a claimant totally disabled. **First, for certain conditions resulting from work-related injuries, a claimant is deemed totally disabled and need not demonstrate loss of earning capacity to recover workers’ compensation benefits.** See, e.g., S.C.Code Ann. § 42-9-10 (Supp.1994) (classifying loss of certain limbs and body parts as total disability as a matter of law; **classifying as total disability paraplegia, quadriplegia, and physical brain damage resulting from compensable injuries**).

Stephenson v. Rice Services, Inc., 473 S.E.2d 699, 323 S.C. 113 (1996)(emphasis added).

The dicta in the Stephenson case put the Court in a logical box: if physical brain damage is deemed total disability, then every case involving physical brain damage must result in an award of lifetime compensation. As such, even the most minor brain injury would result in lifetime compensation without regard to the actual disability of the employee. But, see, Pearson v. JPS Converter & Indus. Corp., 327 S.C. 393, 400, 489 S.E.2d 219, 222 (Ct. App. 1997) (§ 42-9-10 does not require that total and permanent disability result solely from physical brain damage but does require that the claimant suffer physical brain damage as a result of the compensable injury).

The workers’ compensation bar has generally understood lifetime benefits to be awarded only to “any person determined to be totally and permanently disabled who as a result of a compensable injury . . . has suffered physical brain damage . . .” S.C. Code Ann. § 42-9-10 (C)(2007). In other words, the injured worker had to prove both (1) total and permanent disability, and (2) physical brain

damage. If both elements are proven, the award is for lifetime benefits.<sup>2</sup> If the worker proved physical brain damage – but failed to prove total and permanent disability – an award for permanent partial disability to the brain was made under Regulation 67-1101.<sup>3</sup>

The Court acted from the mistaken assumption that “physical brain damage” is deemed permanent and total disability, such that (as a matter of public policy) it needed to define “physical brain damage” in a way that avoided *de minimus* brain damage resulting in lifetime compensation. Given those parameters, the solution was to hold, “the context implies the General Assembly meant to require severe, permanent impairment of normal brain function in order for an injured worker to be deemed physically brain damaged under § 42-9-10(C).” The Court then further defined the term as “severe and permanent physical brain damage.”

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<sup>2</sup>In the Respondents’ Brief in Sparks, Respondents argue:

This Court should apply long-standing rules of statutory interpretation to the phrase “physical brain damage” as used in S.C. Code Ann. § 42-9-10 and as applied by the Commission, and hold that physical damage to the brain must both be permanent and contribute to a claimant’s total and permanent disability in order for a claimant to be entitled to lifetime compensation. [Respondents’ Brief (Sparks), page 23].

This argument encompasses exactly how the Commission and workers’ compensation practitioners (claimant and defense) have always viewed the statute. BIA agrees the Court properly rejected as untenable the argument made by Sparks that the term “has suffered physical brain damage” does not require *permanent* brain damage. However, in so doing, the Court went well beyond the definition advocated by the Sparks Respondents, resulting in a definition which is likely to have draconian unintended consequences.

<sup>3</sup>The regulation assigns a range of 25-250 weeks for partial loss or loss of use of the brain. 25A S.C Code Ann. Reg. 67-1101 C (2007). A permanent partial disability award under the regulation still requires evidence of permanent physical impairment to the listed body part. See Cranford v. Hutchinson Const., 731 S.E.2d 303, 399 S.C. 65 (Ct. App. 2012)(entitlement to permanent partial disability benefits requires a showing of permanent impairment to the injured member). The inclusion of the brain confirms the legislature’s intent to allow compensation under the medical model for permanent physical brain damage to those employees who are able to return to work. See Wigfall v. Tideland Utilities, Inc., 580 S.E.2d 100, 354 S.C. 100 (2003)(discussing interplay between medical and economic models of disability compensation).

A closer look at the statute shows the Court was mistaken when it stated a claimant who suffers paraplegia, quadriplegia, and physical brain damage is *deemed* permanently and totally disabled. A person is deemed totally disabled only when he suffers “the loss of both hands, arms, shoulders, feet, legs, hips, or vision in both eyes.” S.C. Code Ann. § 42-9-10(B) (2007). The reference to paraplegia, quadriplegia, and physical brain damage is in another paragraph of the code section. That paragraph explains that proof of one of these special conditions by “any person *determined* to be totally and permanently disabled” results in lifetime compensation. S.C. Code Ann. § 42-9-10(C) (2007).

“Physical brain damage” has *never* been *deemed* permanent and total disability. For that matter, even if quadriplegia and paraplegia were once so deemed, that is no longer the case. Prior to the statutory amendments in 2007, the statute provided: “where there is fifty percent or more loss of use of the back . . . the injured employee shall be *deemed* to have suffered total and permanent disability and compensated therefor under paragraph two of § 42-9-10.” S.C. Code Ann. § 42-9-30(19) (1988)(repealed by 2007 Act No. 111, Pt I, § 18, eff July 1, 2007)(emphasis added). The statute was amended to provide that a loss of use of fifty percent or more of the back merely creates a rebuttable presumption of total and permanent disability. S.C. Code Ann. § 42-9-30(21) (2007). The point is clear: entitlement to lifetime compensation turns on proving *both* (1) a qualifying permanent impairment to the spinal cord or brain (paraplegia, quadriplegia, or physical brain damage); and (2) actual total and permanent disability. There is no one injury that per se deems an employee entitled to lifetime compensation.

The Court should grant rehearing to redefine the test for lifetime compensation to require separate proof of each element. It should further reject the unscientific use of the term *severe* in favor of terminology consistent with the definitions used by the medical community.

As the Court observed in Crisp, no other states use the “physical brain damage” terminology. This is hardly surprising, as the corresponding medical term is “traumatic brain injury.”

BIA agrees with the Court that the Legislature plainly intended the brain damage to be physical. In this context, the inclusion of the term “physical” is plainly to distinguish traumatic brain injuries from purely mental or psychological injuries.

The Court took issue with the briefs and orders below for having “alternatively referred to Petitioners brain injuries in terms of ‘physical brain injury’ and ‘physical brain damage.’” Id. The Court frames the issue as a “question of whether an employee has sustained either a physical injury to the brain or physical brain damage.” Crisp v. SouthCo Inc., Op. No. 27230 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 21) Respectfully, that is not the right way to phrase the question. The real question is whether the work-related accident resulted in permanent physical damage to the brain causing impairments which contribute to an employee’s total and permanent disability.

The real problem arises when the Court states: “the severity of the injury is the lynchpin of the analysis.” Id. Therein lies the rub. According to the Centers for Disease Control, “[Traumatic Brain Injury] is generally categorized as mild, moderate or severe. Most TBIs are mild TBI (MTBI). MTBI refers to those in which the injury to the brain itself is diagnosed as mild at the time the person

is initially evaluated.”<sup>4</sup> “Injury severity is typically established within the acute to early subacute time frame but the long-term effects of TBI and resultant disability, if any, can only be established months to years post-injury.”<sup>5</sup> Thus, while it is sometimes possible to determine the existence of physical brain damage early in the process, the fact some healing takes place – particularly within the first six months – and some damage takes time to manifest itself, means the twin determinations of permanent impairment and inability to work are properly made at MMI (as this Court implied in Crisp).

Doctors make the initial classification of brain injury as mild, moderate or severe on the initial evaluation. Most classification systems “differentiate TBI on the basis of loss of consciousness (LOC), altered consciousness (AOC), post-traumatic amnesia (PTA), or Glasgow Coma Scale (GCS).”<sup>6</sup> For the injury to be classified as severe, most systems require that the patient suffer a gross loss of consciousness for greater than 30 minutes.<sup>7</sup>

The Glasgow Coma Scale (GCS) was developed in 1974 at the University of Glasgow. The GCS is used to quickly assess level of consciousness after head injury in an emergency trauma setting. The scale is composed of three tests: eye, verbal and motor responses. The lowest possible

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<sup>4</sup>Faul M, Xu L, Wald MM, Coronado V. Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations and Deaths, 2002-2006. Atlanta, Georgia: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2010.

<sup>5</sup>Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 193 (5<sup>th</sup> ed. 2012).

<sup>6</sup>Department of Defense and Department of Veterans Affairs (2008). “Traumatic Brain Injury Task Force” <http://www.cdc.gov/nchs/data/icd9/Sep08TBI.pdf>

<sup>7</sup>Id.

GCS (the sum) is 3 (deep coma or death), while the highest is 15 (fully awake person). Generally, brain injury is classified as:

Severe, with GCS < 9

Moderate, GCS 9–12

Mild, GCS  $\geq$  13<sup>8</sup>

A holding where “the severity of the injury is the lynchpin of the analysis,” and the threshold is a “brain injury that is severe,” invites the misuse of these simple triage tests, as a proxy for permanent impairment to the brain. The vast majority of work related TBI’s are mild or moderate – at the outset.<sup>9</sup> However, a small but significant portion of those workers suffer severe permanent impairments – impairments sometimes significant enough to contribute to the worker’s total and permanent disability.<sup>10</sup> It is these people who will be cut out by the definition adopted in Sparks and Crisp.

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<sup>8</sup>“The Glasgow Coma Scale: clinical application in Emergency Departments.” *Emergency Nurse* 14 (8): 30–5. 2006.

<sup>9</sup>The ratio of TBI’s in each classification using the most commonly accepted criteria is roughly: 80% mild; 8-10% moderate; <10% severe. Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 204 (5<sup>th</sup> ed. 2012). From 2007 to 2011, South Carolina hospitals reported the ratio as 84.87% mild, 6.36% moderate, and 8.77% severe. *Traumatic Brain Injury Discharges by Year - The South Carolina Brain Injury Association Report (Prepared by the South Carolina TBI Surveillance System) 2012*. These figures are based on diagnosis at the time of discharge. As such, they do not account for the longer term effects of a TBI, and cannot be used as a proxy for determining long term disability.

<sup>10</sup>Post-concussion syndrome is a constellation of somatic, cognitive and emotional-reactive symptoms resulting from mild TBI. For the majority of victims, these symptoms resolve within weeks or months. Studies have shown 15-20% of persons sustaining mild TBI continue to have these problems one year after the injury; thus can be considered to have suffered a permanent impairment from physical brain damage. Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 203-205 (5<sup>th</sup> ed. 2012).

The practical reality is that employers and carriers will lock onto these cursory emergency room classifications as proof that no physical brain damage (as currently defined by the Court) occurred.<sup>11</sup> Injured workers who suffer mild and moderate brain injuries will be denied treatment – treatment that could arrest or limit the long-term effects of brain damage. Absurdly, they will have a far greater chance of developing severe permanent impairments as a result of undiagnosed and untreated injuries. Yet, those workers who do develop severe permanent impairments sufficient to disable them will be denied lifetime compensation merely because the *initial brain injury* was not classified as severe in the emergency room or went undiagnosed altogether.<sup>12</sup>

Brain damage itself comes in various forms. *Focal brain damage* is damage to an identifiable part of the brain. Patients with focal brain damage suffer specific deficits while retaining normal brain function elsewhere. Such patients may suffer partial paralysis or lose the ability to speak, smell or otherwise function depending on the location of the damage. Focal brain damage occurs most often in strokes, penetrating head injuries, and injuries resulting in bleeding

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<sup>11</sup>In Crisp, the Respondents relied on this specific tactic: “This substantial evidence includes the fact none of the several hospital physicians who treated Crisp after the incident noted ‘symptoms commonly attendant to a physical brain injury during the course of treatment.’” [Brief of Respondents (Crisp), pages 11-12].

<sup>12</sup>This point was made by Professor Lezak in the leading treatise on the subject:

When the patient has sustained other injuries . . . the cognitive problems may not become disruptive or even evident for days or – in some cases – weeks after the accident. Patients who take a few days away from their normal responsibilities after an accident may not notice mental impairments until returning to work or preparing meals, shopping, and planning for a family. Thus it is not uncommon to find no notes reporting altered mental status in the emergency room record or hospital chart, even when the patient is later observed to suffer from fairly debilitating mental dysfunction.

Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 204 (5<sup>th</sup> ed. 2012).

(hematomas). Sometimes the damage can be located on imaging studies; otherwise, neuropsychological testing can pinpoint the specific area of damage.

*Cortical contusions (bruising)* occur with the rapid acceleration-deceleration seen in falls and car accidents. These brain contusions usually involve the frontal and temporal lobes, as these areas are most susceptible to the damaging effects of the brain bouncing and twisting within the skull. Patients with frontal and temporal lobe lesions develop problems with regulation and control of goal directed activity, problem solving, and memory and learning. They often suffer personality changes which “are more likely to impede the patient’s return to psychosocial independence than cognitive impairment or physical crippling.”<sup>13</sup> Patients may also suffer an impaired sense of smell, reduced visual competency, hearing issues, and balance disorders.

*Diffuse brain damage* is a common result of closed head injuries. Although the skull protects the brain from penetration, the brain itself is damaged by the shearing effect. Brain tissue suffers widespread tearing at the cellular level known as *diffuse axonal injury*. “Probably most traumatic axonal pathology occurs as a result of secondary effects damaging the fine cytoarchitecture of the axon, referred to as *secondary axotomy*. These intracellular alterations evolve over time taking days to months for the full pathological effects to develop. They degrade the functionality of the axon and can even lead to cell death.”<sup>14</sup>

Diffuse brain damage generally cannot be seen on conventional imaging studies, although some emerging technologies provide hope this may change in the future. Under the current state of the art, the effects of diffuse brain damage can be shown by cognitive behavioral level of functioning

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<sup>13</sup>Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 200-202 (5<sup>th</sup> ed. 2012).

<sup>14</sup>Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 187 (5<sup>th</sup> ed. 2012).

and neuropsychological testing. Although the brain may appear to be superficially intact on conventional CT and MRI scans, patients suffer a constellation of impairments from degradation in the microstructure and integrity of axons and their connections. This type of damage compromises mental processing speed, attention, cognitive efficiency, high-level concept formation, complex reasoning abilities, and executive functions. Patients perform poorly on tasks requiring concentration and mental tracking, and on reasoning problems that must be performed mentally. The result is confusion, perplexity, irritability, fatigue, and inability to do things as well as before the accident. The authors of *Neuropsychological Assessment* noted:

The latter complaint is particularly poignant in bright, mildly damaged individuals who may still perform well on standard ability tests but who are aware of a loss of mental power and acuity that will keep them from realizing premorbid goals or repeating premorbid accomplishments.<sup>15</sup>

It should be noted that most workers with concussions make full recoveries after suffering transient neurological deficits for a relatively brief period (less than 10 days).<sup>16</sup> As there is no permanent impairment, these people would not be considered to have suffered physical brain damage as referenced in the statute. They should not be denied treatment for brain injury merely because their injuries are mild and temporary; but clearly do not meet the criteria for lifetime compensation even if otherwise totally disabled from other injuries sustained in the same accident.

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<sup>15</sup>Muriel Deutsch Lezak et al., *Neuropsychological Assessment* 200 (5<sup>th</sup> ed. 2012).

<sup>16</sup>The term “concussion” is often used interchangeably with terms such as mild traumatic brain injury (mTBI), minor closed head injury, and mild closed head injury. J. N. Apps; K.D. Walter Eds., *Pediatric and Adolescent Concussion Diagnosis, Management, and Outcomes* (2012). The term is used here to describe the mildest form of traumatic brain injury from which patients recover with no permanent impairment.

Any definition of “physical brain damage” adopted by this Court should: (1) be consistent with medical terminology; (2) recognize that permanent impairment of brain function is the lynchpin; (3) require that permanent impairment be determined at MMI; (4) acknowledge that the brain damage must constitute a hindrance to employment, but not be the sole cause of total and permanent disability (as in Pearson); and (5) recognize that mild and moderate traumatic brain injuries can result in permanent physical brain damage. The Court should retain the framework whereby physical brain damage can be proven by “(1) CT or MRI scanning [and other types of imaging]; (2) cognitive behavioral level of functioning; and (3) neuropsychological testing.” Crisp v. SouthCo Inc., Op. No. 27230 (S.C.Sup.Ct. filed March 6, 2013)(Shearouse Adv.Sh. No. 11 at 35). In short, the definition must consider whether the work-related accident caused permanent physical damage to brain function resulting in impairments which contribute to a claimant’s total and permanent disability.

There are other plausible definitions elsewhere in the law. For example, “traumatic brain injury” is defined elsewhere in the South Carolina Code of Laws at the regulations for “Criteria for Entry into Programs of Special Education for Students with Disabilities.” The definition states:

Traumatic Brain Injury means an acquired injury to the brain caused by an external physical force,<sup>17</sup> 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

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<sup>17</sup>A broader definition of brain damage is an acquired brain injury (ABI). ABI includes all types of traumatic brain injuries and also brain injuries caused after birth by cerebral vascular accidents (commonly known as stroke), and loss of oxygen to the brain (hypoxic brain injury).

apply to brain injuries that are congenital or degenerative, or to brain injuries induced by birth trauma.<sup>18</sup> 25A S.C. Code Ann. Reg. § 43-243.1 (L)(1)(2011).

This definition could easily be modified for workers' compensation purposes to read:

[Physical brain damage] means an acquired injury to the brain caused by [a work related accident], resulting in total or partial functional disability or psychosocial impairment, or both, that [constitutes a hindrance or obstacle to obtaining employment]. The term applies to open or closed head injuries[, vascular accidents and hypoxic 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.

This definition has the advantage of being familiar to medical and rehabilitation specialists throughout the state, thus promoting uniformity of testing and evaluation. It is sufficiently detailed to avoid the confusion and subjectivity in a definition based on an undefinable and unquantifiable severity continuum. It focuses on long-term outcomes rather than the initial injury. And while linking the residual effects of the brain damage to future employment, it retains the separation of the two elements set forth in the statute.

The Court should grant rehearing in both Sparks and Crisp. The decisions adopted a definition of physical brain damage which will ultimately prove unworkable and harmful to working individuals disabled by brain injuries. The BIA respectfully requests that the Court grant rehearing to adopt a definition consonant with the statute and with medical knowledge.


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<sup>18</sup>South Carolina adopted this definition pursuant to federal law. See 34 Code of Federal Regulations §300.8(c)(12).

**CONCLUSION**

For the foregoing reasons, the Brain Injury Association of South Carolina respectfully requests that this Court grant the Petitions for Rehearing. Upon granting the Petitions, the Court should redefine "physical brain injury" consistent with medical knowledge and terminology to describe acquired permanent impairment of brain function which constitutes a hindrance or obstacle to employment.

Respectfully Submitted,



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