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Chairwoman Woolsey, Ranking Member McMorris-Rodgers and Members of the Subcommittee on Workforce Protections of the Committee on Education and Labor:

Thank you for the opportunity to appear before you today.

My name is Emily Spieler. I am currently the Dean of the School of Law at Northeastern University in Boston. In the past, I served as the head of the workers' compensation program in the State of West Virginia, I have written and spoken frequently on issues relating to state workers' compensation program, and I have served on committees relevant to this issue for the National Academy of Social Insurance, the National Academies of Science, and the American Bar Association. I served as Chair of the Federal Advisory Committee to the Department of Energy on the implementation of the Energy Employees Occupational Injury Compensation Program Act. I was a member of the seven-member Steering Committee appointed by the American Medical Association to provide advice on the development of the Fifth Edition of the *AMA Guides to the Evaluation*. That committee was disbanded before the edition was completed, and five of us from the committee then published "Recommendations to Guide Revision of the Guides to the Evaluation of Permanent Impairment" in the *Journal of the American Medical Association*.<sup>1</sup> I declined the opportunity to be a formal reviewer for the Sixth Edition of the *Guides*.

I would like to acknowledge the assistance of John F. Burton Jr., Emeritus Professor at Rutgers University, and the nation's leading expert on workers' compensation, in the preparation of this testimony.

I appear before you today to express my deep concern about the trajectory of state workers' compensation programs in general and my more particular concern regarding the Sixth Edition of the AMA's *Guides to the Evaluation of Permanent Impairment*.

Workers' compensation is the social benefit system designed to provide income replacement benefits and medical care to people who have been injured or made ill by their work. After an

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<sup>1</sup> E. Spieler, P. Barth, J.F. Burton, Jr, J. Himmelstein, L. Rudolph (2000) Recommendations to Guide Revision of the *Guides to the Evaluation of Permanent Impairment*. *JAMA* 283 (4) 519-523.

injury, a worker generally requires a temporary period of healing, during which s/he may not be able to work and will collect temporary total disability (TTD) benefits. The length of this period may vary, but at the end of it the health condition will stabilize and the individual will be viewed as having reached maximum medical improvement (MMI). At this point, all workers' compensation programs have a mechanism for providing compensation for the permanent effects of the compensated injury or illness. In almost all cases, the individual is partially (not completely) disabled and will receive permanent partial disability (PPD) benefits. In severe cases, the worker may receive permanent total disability (PTD) benefits, generally paid for life. PTD benefits are extremely rare in workers' compensation systems, even if an individual is unable to reenter the workforce successfully. PPD benefits are therefore the critical benefit providing compensation for permanent losses.

PPD is the most costly area of cash benefits paid by workers' compensation programs, although the medical costs associated with the programs now surpass the cost of all cash benefits paid directly to workers.<sup>2</sup> The systems used by workers' compensation programs to award these benefits vary. Almost all states (43 jurisdictions) use a statutory schedule for a small number of injuries, such as loss of a limb. Most of these statutes also provide that multiple losses of body parts will result in a PTD award.

Beyond this, there is large variability among jurisdictions in both methodology and outcome in PPD cases. In general, PPD is assessed based on one of three methodologies: loss of earning capacity, a predictive model, used by about 13 states; actual wage loss (about 10 states); and, most commonly, permanent impairment without direct consideration of actual loss of earnings. Some states use a combined approach, modifying the impairment rating (as in California) or assessing the disability differently if the worker has returned to work. In 14 of the "impairment" states, the worker receives a benefit based on the degree of impairment, and loss of earnings is not considered at all. In these states, a percentage of impairment is simply converted to a monetary award using a formula set by statute or regulation, so that each percentage point can be equated to a specified number of weeks of weekly benefits, generally based on the individual worker's pre-injury wage, with a statutory wage cap.<sup>3</sup>

I believe all but one state now allows cases to be settled for a lump sum settlement through a process called compromise and release agreements. This means that the worker and the payer (private insurance carrier, state fund or self insured employer) attempt to quantify the worth of the injury and eliminate any on-going obligation to pay benefits to the worker. In many states, this includes a settlement of the potential future medical costs as well.

Analyses of trends in workers' compensation suggest that the adequacy and availability of compensation are declining, perhaps significantly. States are erecting greater barriers to compensability. Increasing weight is being given to impairment ratings, and fewer and fewer jurisdictions offer wage replacement benefits without time limits.

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<sup>2</sup> I. Sengupta, V. Reno and J.F. Burton, Jr. (2010) *Workers' Compensation: Benefits, Coverage, and Costs*, 2008. Washington, DC: National Academy of Social Insurance.

<sup>3</sup> This information is drawn from P.S. Barth (2003-2004). Compensating Workers for Permanent Partial Disabilities. *Social Security Bulletin* 65(4) 16-23.

Given this background, it is no surprise that there is a quest for a magic formula that quantifies the effects of injuries. At its best, this is a quest for an efficient, reliable and valid methodology that would be fair to individual workers by reflecting the true extent of their disabilities; would be equitable to injured workers as a group by providing consistent awards for similar injuries and disabilities; would limit transaction costs so that benefits are provided efficiently and without undue delay; and would provide predictive value to payers so that premium rates would not be unduly inflated by excessive caution in the face of uncertainty.

It is for these reasons that the American Medical Association's *Guides to the Evaluation of Permanent Impairment (Guides)* has become so important.

Guides for impairment rating of organ systems were initially developed before 1970 and were first published together as the *Guides for the Evaluation of Permanent Impairment* in 1971. Since then, the book has been revised repeatedly; the Sixth Edition, published in 2008, is the latest in the series. Each edition has been critical of prior editions, and each edition has made changes in the assessment techniques.

Some elements have been constant. The book is organized by organ system, providing a methodology for examination and then rating (numeric quantification) of the extent of impairment, currently expressed as a percentage of whole person impairment (WPI). The Guides has specifically stated that these are impairment ratings, not intended for use to rate disability – economic and noneconomic loss – because disability reflects a combination of medical and non-medical factors. In fact, many of the specific WPI ratings have not changed over time, despite significant advances in the understanding of impairment, functional loss and disability.

It is critical to understand that the key element that the *Guides* adds to the existing medical literature is the ***numeric quantification of impairment***. It is this aspect of the *Guides* that encourages its expanding use. As noted below, ***this quantification is not, and has never been, evidence-based.***

The use of the *Guides* has increased rapidly, precisely because it has successfully been characterized as the best vehicle to meet the complex goals of fairness, reliability and efficiency in rating permanent impairment. The *Guides* is reportedly now used in more than 44 states as well as federal compensation programs. *Guides* 6<sup>th</sup> p. 20. Increasingly, state workers' compensation programs have moved to using the impairment ratings as a proxy for the extent of disability. It is used in cases under the Federal Employees' Compensation Act, the Energy Employees Occupational Illness Compensation Program Act and, to a more limited extent, under the Longshore and Harborworkers Compensation Act. It is showing up for the ratings of injuries in automobile accident cases. It is used in Canada, New Zealand, Australia, and South Africa. This represents, of course, remarkable reach for a publication of a non-governmental organization that is developed without public comment or full peer review.

It is therefore no surprise that each new edition of the *Guides* is highly scrutinized: ***The impairment ratings in the Guides have become the proxy for the rating of disability in many***

*state workers' compensation programs* – despite the admonition in the book that its purpose is to rate impairment, not disability. This poses a particular challenge because the extent of impairment may not be a good predictor for the economic consequences (work disability) or for the noneconomic consequences (nonwork disability or noneconomic loss) of injury or disease.

When I served on the Steering Committee for the development of the Fifth Edition, serious issues were raised about the legitimacy of the *Guides* in terms of its use in workers' compensation systems. Since then, the AMA has published two additional editions, each with changes.

The Sixth Edition explicitly acknowledges the criticisms of the prior editions of the *Guides*<sup>4</sup> and attempts, for the first time, to draw links between impairment and functional loss by standardizing assessment of the ability of the patient to perform specified Activities of Daily Living (ADLs). It applies functional assessment tools and includes, to a limited extent, measures of functional loss in the impairment ratings. It organizes the medical examination to incorporate history, physical clinical studies and functional status. It also strives to increase inter-rater and intra-rater variability.<sup>5</sup> These are all important and laudable steps.

But a more careful reading of the Sixth Edition reveals many changes that are troubling in their scope or in their application. The edition also retains some of the most problematic features of the earlier editions.

I will now summarize the changes in the Sixth Edition, as well as the areas of continuing concern that have not been addressed by this latest edition of the *Guides*.

## **Changes in the Sixth Edition of the *Guides***

There are five key areas of changes in the Sixth Edition:

### **1. Definitional structural changes in the Sixth Edition**

#### **Adoption of the ICF definitional structure.**

The Sixth Edition purports to adopt the International Classification of Functioning, Disability and Health (ICF) of the World Health Organization, designed to describe health and disability at

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<sup>4</sup> These acknowledged criticisms included: "There was a failure to provide a comprehensive, valid, reliable, unbiased, and evidence-based rating system; Impairment ratings did not adequately or accurately reflect loss of function; Numerical ratings were more the representation of 'legal fiction than medical reality.'" *Guides* 6<sup>th</sup> (2)

<sup>5</sup> The Sixth Edition adopts five new "axioms": (1) The *Guides* adopts the terminology and conceptual framework of disablement as put forward by the International Classification of Functioning, Disability, and Health (ICF). (2) The *Guides* becomes more diagnosis based with these diagnoses being evidence-based when possible. (3) Simplicity, ease-of-application, and following precedent, where applicable, are given high priority, with the goal of optimizing interrater and intrarater reliability. (4) Rating percentages derived according to the *Guides* are functionally based, to the fullest practical extent possible. (5) The *Guides* stresses conceptual and methodological congruity with and between organ system ratings. *Guides* 6<sup>th</sup> (2-3).

the individual and population levels. According to the *Guides*' authors, this system looks at what an individual can – can cannot – do, and it claims to provide “greater weight to functional assessment than do prior Editions.” *Guides* 6<sup>th</sup> p. 26. The “relationships between impairment, activity limitations, and participation are not assumed to be linear or unidirectional.” *Guides* 6<sup>th</sup> p. 3. The Senior Contributing Editor to the Sixth Edition, Dr. Christopher Brigham, has noted that “use of the ICF model does not indicate that the *Guides* will now be assessing disability rather than impairment. Rather, the incorporation of certain aspects of the ICF model into the impairment rating process reflects efforts to place the impairment rating into a structure that promotes integration with the ICF constructs for activity limitations and limitations in participation, ultimately enhancing its applicability to situations in which the impairment rating is one component of the ‘disability evaluation process.’”<sup>6</sup> This is described by the authors of the Sixth Edition as a ‘paradigm shift,’ and the *Guides* now uses validated questionnaires for assessing function.

But there are serious problems raised by this shift.

First, this definitional structure is different from the prior definitions under the *Guides*, is not consistent with terminology in workers’ compensation programs, and is quite different from definitions under the Americans with Disabilities Act – thus creating new confusion in an already confused and complex field.

Second, although importing the ICF model and including evaluation of ADLs gives the *Guides* the *appearance* of improving its approach to functional assessment, the actual effects of the change are in fact extremely limited: “Patients’ responses on functional assessment instruments will act as modifiers of the percentage impairment they are awarded, but the awards will, in general, primarily reflect objective factors.” *Guides* 6<sup>th</sup> p.39. As is discussed below, whole person impairment ratings are based on placement into a class, and functional assessment can only change the actual WPI rating by a limited amount. In essence, these are small adjustments within limited bands. At the same time, the consideration of significant indicators of function – including range of motion assessment and pain, which were used in preparing the WPI ratings in the Fifth Edition – are eliminated or reduced in the Sixth Edition. There is real tension between the rhetoric rooted in the ICF model and human functioning and the reality of continuing a diagnosis-based approach with exclusion of critical subjective factors.

Third, the use of ADLs for this purpose is troubling. The *Guides* uses both a definition of 100% (approaching death) and a functional assessment approach (ADLs) that is inappropriate for assessing the level of impairment for workers – although these may be appropriate for elderly patients facing self-care issues. ADLs include basic personal hygiene, dressing, eating, functional mobility, sleep and sexual activity. *Guides* 6<sup>th</sup> p.7, 482-484. Data from the National Health Interview Survey conducted by National Center for Health Statistics, Centers for Disease Control and Prevention indicates that the number of people who report inability to perform work due to disability far exceeds the number who report inability to perform ADLs. This is not

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<sup>6</sup> C.Brigham. (2008) AMA *Guides* Sixth Edition: New Concepts, Challenges and Opportunities” *IAIABC Journal* 45(1) 13- 57.

surprising: ADLs represent very basic self care issues and are not a good match for the issues of disability that confront injured workers.<sup>7</sup>

Fourth, the *Guides* now gives the appearance, but not the reality, of assessing function in setting the WPI ratings. This could result in further growth of the inappropriate use of the *Guides* as a proxy for disability.

### **Changes in key definitions**

Important changes and additions were made to the definitions of key terms in the Sixth Edition of the *Guides*. Some of these reflect the adoption of the ICF model, but others are not explained by this shift. Appendix 1 provides a comparison between the Fifth and Sixth Editions of some of these terms. A quick glance through these changes shows the adoption of a new definition of disability, which may be consistent with ICF terminology but is quite confusing in the context of U.S. workers' compensation, and an introduction of the word "significant" into the definition of impairment. The definition of impairment rating introduces the inclusion of ADLs, despite the fact that ADL assessment plays a very small role in the calculation of WPI in the new system. The Sixth Edition also introduces definitions for a series of terms relate directly to legal terminology. I discuss this issue below.

## **2. Conceptual congruity among organ systems through creation of diagnosis-based grids**

The Sixth Edition developed a generic template for diagnosis-based grids across organ systems and attempts to graft this onto the ICF conceptual framework. The ICF classification system uses five impairment classes, and this has been imported into the Sixth Edition for most organ systems and diagnoses. A "key factor" for each organ system determines the placement into the class; the key factor for use on any grid is specified in the text. The key factor is diagnosis-based; it can be derived from clinical presentation, objective testing or, less commonly, physical findings. Class is determined by "diagnosis and/or other specific criteria." *Guides* 6<sup>th</sup> p. 14.

Each class is then generally divided into five grades, with assigned WPI ratings. The middle grade is considered the default, and can be modified – but only within the class – by application of "non-key factors." These include physical findings, clinical test results and patients' self reports on Activity of Daily Living functional scales. Thus, choice of diagnosis and of impairment class are the two most important elements in determining the final impairment rating. The generic template is attached as Appendix 2.

***In all organ systems, actual functional limitations – the lauded change in the Sixth Edition – can have very small impact on the ultimate WPI rating.***

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<sup>7</sup> E. Spieler & J.F. Burton. (2010)The Distressing Lack of Correspondence Between Work-Related Disability and the Receipt of Workers' Compensation Benefits. Unpublished paper.

### 3. Reducing inter-rater variability and reliability by eliminating subjective factors

Despite the rhetoric and the large amount of effort that went into the conversion to the ICF model and diagnosis-based grids, in fact the primary focus in the development of the Sixth Edition seems to have been on reducing inter-rater variability, irrespective of the accuracy of the rating in terms of the actual functional capacity of the individual.

In the effort to address this concern, the Sixth Edition focuses on objective evidence and pathology, rejects subjective symptoms, downgrades the role of treating physicians who would be most familiar with the individual's functional capacity, and, as noted above, restricts the effect of any assessment of functional loss. Rater discretion is reduced by the diagnosis-based grid methodology, which narrows the bands of available WPI ratings as well as by the insistence on objective findings. Although this has been characterized as increasing 'fairness,' it in fact may have the result of lowering the WPI rating, without any consideration for the effects of these changes on injured individuals.<sup>8</sup>

**Pain** is unquestionably the most important subjective symptom. Because it is subjective, however, it is viewed with suspicion by the authors of the *Guides*. Under the Sixth Edition methodology, pain is assumed to be included in the rating for any condition covered in the organ system chapters. In contrast, the Fifth Edition allowed for an additional 3% WPI for pain. For painful conditions not subject to rating in the organ system chapters, the Sixth Edition allows up to 3% WPI. This is true despite the fact that the *Guides* indicate that there is a "linear trend for decreasing positive outcomes (e.g. return-to-work and work retention) as the [pain disability questionnaire] score categories increased." *Guides* 6<sup>th</sup> p.40. The *Guides* chooses objective factors – to ensure reliability – over accuracy in assessing the actual outcomes for disabled persons.

**Musculoskeletal Impairments and Range of Motion:** The Sixth Edition eliminates range of motion as a basis for rating spine and pelvic impairments. Classification of these disorders is based solely on diagnosis, and then placed within the appropriate class. Again, the justification is standardization that "promotes greater inter-rater reliability and agreement."<sup>9</sup> In contrast, the Fifth Edition used both ROM and diagnosis-related estimate (similar to the diagnosis-based impairment) to determine the WPI rating. Range of motion is an indicator of functionality.

**Treating physician reports:** According to the Sixth Edition, treating physicians' reports carry inherent bias, and therefore require great scrutiny. One of the Section Editors of the Sixth Edition, Dr. Kathryn Mueller, observed, "One study noted higher impairment ratings by treating physicians as compared to an expert who reviewed the same information." Noting that studies show that PPD payments do not adequately reflect actual wage loss of individuals after MMI,

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<sup>8</sup> According to Dr. Brigham, ratings done under prior editions had high rates of error. He assembled a group of experts to review ratings by other physicians and they disagreed with 78% of the ratings: the average WPI of the raters was 20.4% and the re-rating was 7.3%. He concludes that the ratings being given to injured people were too high, and the Sixth Edition is specifically designed to correct for this. C .R. Brigham, W. F. Uehlein, C.Uejo, L.Dilbeck. (2008) AMA Guides Sixth Edition: Perceptions, Myths, and Insights. *IAIABC Journal* 45(2) 65-81. Compare this with the statement by Dr. Mueller regarding treating physicians.

<sup>9</sup> Brigham, *supra* n. 6.

she went on to note, “Thus, if the treating physicians’ ratings were slightly higher than ‘expert’ ratings, in a social sense, this may be appropriate. Perhaps the treating physicians are considering the overall functional effects of the injury or illness on the individual.”<sup>10</sup> This suggestion is, of course, in sharp contrast to Dr. Brigham’s assertions that ratings were consistently too high under the Fifth Edition.<sup>11</sup>

#### **4. New direct links to legal issues relating to compensation**

The Sixth Edition is the first edition to openly acknowledge the use of the *Guides* for determination of economic benefits: “The primary purpose of the *Guides* is to rate impairment to assist adjudicators and others in determining the financial compensation to be awarded to individuals who, as a result of injury or illness, have suffered measurable physical and/or psychological loss.” *Guides* 6<sup>th</sup> p. 6. In fact, although this edition continues to state that it should not be used to create direct estimates of disability, the Sixth Edition no longer sets out this caution in bold in the text. It also significantly expands into areas of legal definitions. It adds definitions for causality, aggravation, exacerbation, and recurrence – all legal concepts in workers compensation programs – thereby usurping these programs’ prerogative to define these terms. See Appendix 1.

The approach to apportionment is particularly troubling. The traditional rule in workers’ compensation programs is that an employer takes a worker as “he finds him.” Under this traditional view, the compensable impairment from an injury would include any underlying disease or degenerative process. Although some workers’ compensation systems have moved away from this traditional approach, the majority have not. While noting the need to follow the rules of the local jurisdiction, the *Guides* now instructs raters on how to separate out the portion of the impairment that is not directly caused by the immediate injury. *Guides* 6<sup>th</sup> p.26. This may have a troubling normative effect on programs in which apportionment is not currently appropriate, and further reduce the adequacy of benefits for injured workers.

#### **5. Specific changes in whole person impairment ratings**

The Sixth Edition specifically states that, where there was no compelling reason to change impairment ratings from prior editions, there would be consistency from the prior edition. Thus, despite the adoption of the ICF model and the diagnosis-based grids, the editors assert that very little change was to be made in impairment rating values.

Despite this assertion, there are many unexplained changes in the WPI ratings, and the majority of these appear to lower the ultimate WPI rating for the injured worker.

Examples include:

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<sup>10</sup> K. L. Mueller. (2008) The 6<sup>th</sup> Edition of the AMA Guide to Permanent Impairment: Its Foundation, Implications for Jurisdictional Use, and Possible Future Directors. *IAIABC Journal* 45(2) 35-47, 42.

<sup>11</sup> See note 8, *supra*.



- ***Ratings for the most severe impairments for non-musculoskeletal organ systems have been reduced significantly, including for some common occupational diseases such as pulmonary disease.*** See Appendix 2 for a comparison of the values in the Fifth and Sixth Editions for pulmonary impairment and hypertension: the top rating for the most severe category was lowered from 100% WPI to 65% from the Fifth to the Sixth Editions. Equivalent changes were made in most other organ systems. The top of the scale was lowered, and therefore the scale for severe and moderate disabilities was reduced because of the decrease in the top available rating.<sup>12</sup>

There are, admittedly, some unchanged WPI values, including the conversion of noise-induced hearing loss to WPI and the WPI ratings for voice/speech impairments. And, after perusing all non-musculoskeletal organ chapters, I did find the following increase in values: in the central and peripheral nervous system, the highest impairment rating was increased from 90% to 100% WPI in the Sixth Edition for someone exhibiting a “state of semi-coma with total dependence and subsistence on nursing care and artificial medical means of support *or* irreversible coma requiring total medical support.” *Guides* 6<sup>th</sup> p. 327. On the other hand, the ranges for this category were changed: from 70-90% in the Fifth Edition to 51-100% in the Sixth. As a result, the next class down in “consciousness and awareness” was reduced from a range of 40-69% to 31-50% WPI in the Sixth Edition. It is, of course, possible that there are other examples of increases in the top rating or in the scale. In addition, some charts are new (e.g. HIV).

One explanation for these reductions was offered by Dr. Kathryn Mueller, who wrote: “[T]he editors found that the majority of the chapters included a 100% whole person rating even when the 100% whole person rating for that particular body system would not be appropriate [because 100% is equivalent to near death]. Therefore, the editors lowered the 100% whole person ratings in many of the chapters.” She goes on to make the following assumptions: that these individuals will have other organ system impairments that will raise their total WPI, and that “most individuals with severe deficits will be permanently totally disabled, and therefore, in most systems, a permanent partial disability rating relying on the AMA Guides will not be applicable.”<sup>13</sup> This last statement assumes an availability of PTD benefits that is unlikely to be correct.

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<sup>12</sup> Top WPI ratings for severe impairments were lowered from the Fifth to the Sixth Editions of the *Guides* as follows: for pulmonary impairment and hypertension from 100% to 65% WPI; for upper and lower digestive tract impairments from 75% to 60% WPI; for liver or biliary tract disease from 95% to 65% WPI; for upper urinary tract disease from 95% to 75% WPI; for bladder disease from 70% to 29% WPI; for urethral disease from 40% to 28% WPI; for penile disease from 20% to 15% WPI; for vulval and vaginal disease and for cervical & uterine disease from 35% to 20% WPI; skin disorders from 95% to 58% WPI; anemia from 100% to 75% WPI; hypothalamic-pituitary axis from 50% to 14% WPI; thyroid abnormalities from 25% to 20% WPI; for diabetes mellitus from 40% to 28% WPI; for hypoglycemia from 50% to 6% WPI; for vestibular (balance) disorders from 95% to 58% WPI; facial disorders 50% to 45% WPI; air passage disorders 90+% to 58% WPI; episodic loss of consciousness or awareness 70% to 50% WPI.

<sup>13</sup> K.L. Mueller (2008) The 6<sup>th</sup> Edition of the AMA Guide to Permanent Impairment: Its Foundation, Implications for Jurisdictional Use, and Possible Future Directors. *IAIABC Journal* 45(2) 35-47, 37

- As previously noted, *the pain ‘add-on’ of up to 3% has been eliminated from all ratings in organ system chapters.* Given that the overall available WPI ratings were not increased to reflect pain, but the Sixth Edition simply states that pain is included, this will result in reductions in WPI ratings for individuals with significant pain.
- ***Musculoskeletal cases:*** It is more difficult to assess the changes in the new Sixth Edition chapters for musculoskeletal disorders (upper and lower extremities and spine) because the methodologies of the chapters are quite different from the prior edition. Probably the most significant changes are the elimination of the Range of Motion assessment and the pain add-on. In addition, cases involving surgical intervention are all substantially reduced in terms of WPI. These include spinal fusion (reduced from 24% to 15% WPI), ankle replacement with poor result (30% to 24% WPI), total knee replacement (from 20% to 15% WPI) and hip fracture (from 25% to 12% WPI). I believe that the change in ratings for these cases may be due to the fact that the Sixth Edition does not consider treatment of the injury in the rating.<sup>14</sup> Attached as Appendix 3 is an overview of the WPI rating ranges in the Fifth and Sixth Editions for spine injuries.

There are a few increases in ratings in these chapters, including for vertebral fractures, but the magnitude of these is small. Similarly, some previously non-ratable conditions, such as soft tissue and muscle/tendon injuries and non-specific spinal pain are now rated, all with low WPI ratings of 1-2%.

- In assessing non-orthopedic consequences of spinal injuries, reductions were made in WPI ratings similar to those made for non-musculoskeletal organ systems. For example, comparing the chapter on central and peripheral nervous system disorders in the Sixth with the spine chapter in the Fifth Edition, top WPI ratings for neurogenic dysfunction were reduced as follows: bladder dysfunction from 60% to 30%; sexual dysfunction from 20% to 15%; respiratory problems from 90+% to 65%; station and gait disorders from 60% to 50%. Bowel and upper extremity dysfunction were unchanged.

There are undoubtedly many other changes in these values that a careful review of each chapter would reveal.

Notably, many of the changes in values are inadequately explained. Certainly, it is clear that the move to functional assessment has not led to any review of the *adequacy* of the impairment ratings for injured workers.

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<sup>14</sup> For a listing of additional specific changes in musculoskeletal ratings, using the case examples given in the *Guides*, see T. McFarren (2008), *AMA Guides*, Sixth Edition Arrive on the Scene, [http://www.lexisnexis.com/Community/workerscompensationlaw/blogs/workerscompensationlawblog/archive/2010/02/17/AMA-Guides\\_2C00\\_-Sixth-Edition-Arrive-on-the-Scene.aspx](http://www.lexisnexis.com/Community/workerscompensationlaw/blogs/workerscompensationlawblog/archive/2010/02/17/AMA-Guides_2C00_-Sixth-Edition-Arrive-on-the-Scene.aspx)

## Core problems of the *Guides* retained in the Sixth Edition

Before the Fifth Edition was finalized, a number of former members of the Steering Committee for that edition published an article in the *Journal of the American Medical Association*, raising concerns about the validity of the *Guides*.<sup>15</sup> Many of the most critical problems raised in that article have not yet been addressed.

1. ***Impairment ratings are not now, nor have they ever been, evidence based.*** The Sixth Edition acknowledges again that the WPI percentages are based on “normative judgments that are not data driven” that still “await future validation studies.” *Guides* 6<sup>th</sup> p. 6, 26. In the 40 years since publication of the First Edition, the AMA has made no attempt to conduct validation studies. Each new edition claims that it is objective – and to have corrected the errors of the past edition(s). Each instructs that the *Guides* not be used for direct computation of benefits. Each has substantial effect on the benefits paid to workers. The original ratings in the First Edition did not even correlate with the scheduled awards that were already included in the workers’ compensation statutes. The differences between AMA impairments ratings and states’ statutory ratings is striking, in particular with regard to relative weight (e.g. loss of arm versus loss of leg). But despite the passage of time and the accumulation of relevant information from studies by economists and others, the relative importance of body parts in the *Guides* is same in Sixth as it was in the First Edition in 1971. Although the Sixth Edition sets up a new approach so that the evaluation of different organ systems is placed within similar diagnosis-based grids, there is also still ***no validation of percentages across organ systems.***
2. Although the *Guides* are predominantly used for assessment of work disability, there has never been any attempt to correlate the percentage values to work. In fact, ***ability to work is excluded from consideration in setting the percentage.*** To the extent the Sixth Edition now appears to be creating correlation by including functional assessment, the *Guides* use ADLs, which do not correlate with work disability, and severely limits the effects on WPI of the functional assessments.
3. ***The process for development of these WPI numbers is opaque.*** The numbers are developed based upon ***consensus of a small number of physicians.*** This persists in the Sixth Edition, which gives “consensus-derived percentage estimate of loss.” *Guides* 6<sup>th</sup> p.5. Only 53 specialty-specific experts contributed to the Sixth Edition; the extent of involvement of each is unclear; the process for derivation of new numbers is not described. This is consistent with past editions. There is not, and there has never been, a possibility for public discussion and input into the process, despite the use of the *Guides* in federal and state governmental programs.
4. ***The Guides presumes that 100% represents a state close to death – a scale inappropriate for assessing the impairment of workers.*** The scale used to generate WPI ratings is a critical component of the validity of the numerical ratings. The appropriate top of the impairment

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<sup>15</sup> Spieler et al, *supra*, n. 1.

scale for assessing workers should reflect a level of functional loss related to inability to perform tasks necessary for independent life and capacity to work. By defining 100% as comatose or approaching death, and 90+% as totally dependent on others, the values for all impairments are inappropriately depressed. The reduction in the top of the scale for many organ systems in the Sixth Edition expands the problem, rather than solving it.

5. ***The Guides combines impairments by reducing the value of each subsequent injury after the first injury, failing to reflect the true effect of multiple injuries.*** The scale that presumes that 100% is equivalent to death forces the devaluation of all injuries after the first. The *Guides*, including the Sixth Edition, therefore requires that each subsequent impairment be reduced in value. Thus, if the first impairment is valued at 25% for one limb, and the same injury occurs in a second limb, the value for the second limb will be less than 25%, and the total impairment will be less than 50%. From the standpoint of real life, this makes no sense whatsoever. If I were to lose the use of one arm, and then lose the second arm, surely I am more not less impaired by this second loss! We suggested in 2000 that later impairments may be more or less impairing than the original impairment: the *Guides*' system of combining impairments means that all additional impairments are viewed as less impairing.
6. ***The Guides is not broadly acceptable to the many constituencies involved in workers' compensation.*** As we noted in 2000, "Acceptability depends in part on the origins of the relative values and in particular on whether there is some scientific basis for the ratings."<sup>16</sup> Plainly, this has not been achieved.

A number of these points were raised in the JAMA article in 2000, prior to the publication of the Fifth Edition. They have still not been addressed.

## **Additional concern regarding the Sixth Edition of the *Guides*:**

The Senior Editor of the Sixth Edition, Dr. Christopher Brigham, has a separate business called Impairment Resources, described at <http://impairment.com/> as follows:

Impairment Resources provides services designed to drive accurate impairment ratings. One of the greatest opportunities in workers' compensation is effective management of impairment ratings.

We are best able to serve you by providing unique professional abilities, innovative technology solutions and offering a suite of services ranging from ImpairmentCheck™ (our unique, online resource to assess the accuracy of ratings) to ImpairmentExpert™ (expert physician reviews). These services are complimented by Internet-based educational resources and tools for all Editions of the AMA Guides to the Evaluation of Permanent Impairment, and expert consultation. Our core values are integrity, service and excellence.

Dr. Brigham has performed surveys that have concluded that the ratings have been too high under the Fifth Edition; it is these conclusions that seem to underpin key changes in the Sixth Edition. The text of the Sixth Edition specifically discourages use of the *Guides* by treating physicians and tells rating physicians that they need "significant training." *Guides* 6<sup>th</sup> p. 35; Dr.

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<sup>16</sup> Spieler et al, *supra* n. 1, at 523.

Brigham's business is a primary conveyor of that training. All of this certainly raises a concern regarding an appearance of a conflict of interest that is troubling in view of the controversy surrounding the *Guides*.

## **Status of the *Guides*' usage in workers' compensation programs:**

Adoption of the *Guides*, and particularly the Sixth Edition, has not been without controversy. Nevertheless, 44 state jurisdictions use one of the editions of the *Guides*. Many states as well as Ontario, FECA, FELA, and the Washington D.C. compensation system are mandated to use the most recent edition of the *Guides* in evaluation of workers for PPD. Appendix 4, drawn from Dr. Brigham's 2008 article, shows the projected adoption of the various editions of the *Guides* as of the time that the Sixth Edition was published.

Disputes regarding adoption of the Sixth Edition have arisen in several states, including Iowa and Kentucky. In Kentucky the legislature voted to delay adoption of this edition. The Sixth Edition was not imported into the EEOICPA, perhaps because of the importance of pulmonary impairment ratings in that system.

Some states continue to use the Fourth or the Fifth Edition. A few states have chosen to develop their own rating systems (including Florida, Illinois, Minnesota, New Jersey, New York, North Carolina, Utah and Wisconsin). Some states do not use a specified rating guide, although it is unclear whether physicians refer to the *Guides* in doing evaluations for workers' compensation. California now chooses to use the *Guides*, but uses a process by which the WPI rating from the *Guides* is adjusted for diminished earning capacity and modified based on occupation and age.

In 2007, an Institute of Medicine Committee charged with studying Veterans Disability Benefits recommended that the Veterans Administration update its own rating schedule rather than adopting an alternative impairment schedule, explicitly rejecting the AMA *Guides*, because the *Guides* measures and rates impairment and, to some extent, daily functioning, but not disability or quality of life.

## **What is to be done?**

The critical issue in all of this technical discussion is this: The *Guides* has a direct effect on the permanent partial disability benefits provided by workers' compensation programs to injured workers. The *Guides* is currently the presumptive gold standard and is therefore used in large numbers of jurisdictions, and the authors of the Sixth Edition are advocating for its expanded use in the United States and elsewhere. While admitting the fact that there is no empirical basis for the WPI quantifications, the Sixth Edition decreases the availability of benefits and thereby increases the externalization of economic costs of injuries from workers' compensation systems.

There is no question that "achieving cost-efficient outcomes and both horizontal and vertical equity (equal treatment of equals and unequal treatment of those with varying levels of

disability) remains elusive.”<sup>17</sup> It is not, however, true that disability is impossible to measure. Researchers have studied nonwork disability and compared the ratings in the *Guides* (3<sup>rd</sup>) to loss of enjoyment of life using an accepted methodology in the field of psychology.<sup>18</sup> Studies have also been done on the relationship of impairment ratings to actual loss of earnings experienced by workers with work-related injuries.<sup>19</sup>

It is true that a reliable and valid tool is challenging to develop, and this may require further research. The existing studies do, however, show an important level of consistency that can form the basis of a new empirically-driven rating system.

The status quo, in which the AMA *Guides to the Evaluation of Permanent Impairment* forms the basis for these discussions, is simply unacceptable. With the widespread adoption of the *Guides*, a small number of physicians is designing the system based on consensus without validation or any real attention to justice. The Sixth Edition has only made this worse. We are pessimistic about the ability of the AMA to produce a *Guides* that serves the real needs of workers’ compensation programs for impairment ratings that are accurate predictors of work disability.<sup>20</sup>

We can improve the approach and increase by validity and reliability, but I doubt that we can turn to the AMA in this effort. As the *Guides* itself indicates in each edition, physicians lack the necessary expertise to assess non-medical issues. Moreover, they are driven by normative judgments of ‘what is right’ – thus making social policy in the guise of medical science. Despite the availability of both recent studies and the historical information in workers’ compensation statutes, the AMA has continued to publish *Guides* with ratings that do not incorporate the available data.

I urge that you ask the National Academies of Science / Institute of Medicine to conduct a review. This review should include recommendations regarding the best way to develop a new system for rating workers’ injuries as measured by the impact of those injuries and diseases on the extent of permanent impairments, limitations in the activities of daily living, work disability and nonwork disability (or noneconomic losses).

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<sup>17</sup> Peter Barth (2010) Workers’ compensation before and after 1983. In R. Victor & L. Carrubba (Eds.), *Workers’ Compensation: Where Have We come From? Where Are We Going?*. Workers Compensation Research Institute.

<sup>18</sup> Sinclair, S. & Burton, J.F., Jr. (1994). Measuring noneconomic loss: quality-of-life values vs. clinical impairment ratings. *Workers’ Compensation Monitor*, 7,4, 1-14; Sinclair, S. & Burton, J.F., Jr. (1995). Development of a schedule for compensation of noneconomic loss: quality-of-life values vs. clinical impairment ratings. In T. Thomason & R.P. Chaykowski (Eds.), *Research in Canadian Workers’ Compensation*, pp. 123-140. Kingston, ON: IRC Press; Sinclair, S. & Burton, J.F., Jr. (1997). A response to the comments by Doege and Hixson. *Workers’ Compensation Monitor*, 10(1) 13-17.

<sup>19</sup> Berkowitz, M. & Burton, J., Jr. (1987). *Permanent disability benefits in workers’ compensation*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research; Boden, L.I., Reville, R.T. & Biddle, J. (2005). The adequacy of workers’ compensation cash benefits. In K. Roberts, J.F. Burton, Jr., & M. M. Bodah (Eds.), *Workplace Injuries and Diseases: Prevention and Compensation: Essays in Honor of Terry Thomason*. (pp. 37-68). Kalamazoo, MI: W.E. Upjohn Institute for Employment Research; Reville, R.T., Seabury, S.A., Neuhauser, F.W., Burton, J.F., Jr., & Greenberg, M.D. (2005). *An evaluation of California’s permanent disability rating system*. Santa Monica, CA: RAND Institute for Civil Justice.

<sup>20</sup> John F. Burton, Jr. (2010) The AMA *Guides* and Permanent Partial Disability Benefits. *IAIABC Journal* 45 (2), 13-35.

The alternative would be for the various workers' compensation systems – both federal and state – to develop their own mechanisms that do not rely so heavily on the *Guides*. The current furor over the Sixth Edition suggests that there is considerable concern in some jurisdictions regarding this issue. Nevertheless, I think that there is strong interest in a 'gold standard' for PPD evaluation, and it is doubtful this will be produced in any single jurisdiction.

Thank you for the opportunity to appear before you today. I would be happy to answer any questions that you may have.

## Definitional changes between Fifth and Sixth Edition Glossaries

Term	Fifth Edition	Sixth Edition
Abnormal illness behavior	Behavior that suggests amplification of symptoms for any of a variety of psychological or social reasons or purposes	Exaggeration or fabrication of symptoms and/or physical findings to psychological, social, financial, or other reasons. Abnormal pain behavior is more specific, meaning there are verbal and/or physical of discomfort in excess of, or unsupported by, physical injury or illness.
Aggravation	A factor(s) (eg, physical, chemical biological, or medical condition) that adversely alters the course or progression of the medical impairment. Worsening of a preexisting medical condition or impairment.	<i>Permanent</i> worsening of a pre-existing condition. A physical, chemical, biological, or other factor results in an increase in symptoms, signs, and/or impairment that never returns to baseline, or what it would have been except for the aggravation (the level pre-determined by the natural history of the antecedent injury or illness). [emphasis in text]
Apportionment	A distribution of allocation of causation among multiple factors that caused or significantly contributed to the injury or disease and existing impairment	The extent to which each of 2 or more probable causes are found responsible for an effect (injury, disease, impairment, etc.). Only probable causes (at least more probable than not) are included. Hence, the first step in apportionment is scientifically based causation analysis. Second, one must allocate responsibility among the probable causes and select apportionment percentages consistent with the medical literature and facts of the case in question. Arbitrary, merely opinion based unscientific apportionment estimates which are nothing more than speculations must be avoided. When appropriate current impairment can also be apportioned to more than one cause.



Chronic pain	Pain that extends beyond the expected period of healing or is related to a progressive disease...	Pain that extends beyond the expected healing period of the injury or illness that initiated it, or is caused by a progressive <b>incurable</b> disease such as arthritis or cancer... [emphasis added]
Disability	Alteration of an individual's capacity to meet personal, social, or occupational demands or statutory or regulatory requirements because of an impairment. Disability is a relational outcome, contingent on the environmental conditions in which activities are performed.	An umbrella term for activity limitations and/or participation restrictions in an individual with a health condition, disorder or disease.
Impairment	A loss, loss of use, or derangement of any body part, organ system, or organ function.	A <b>significant</b> deviation, loss, or loss of use of any body structure or function in an individual with a health condition, disorder, or disease. [emphasis added]
Impairment percentages or ratings [Impairment rating in 6h edition]	Consensus-derived estimates that reflect the severity of the impairment and the degree to which the impairment decreases an individual's ability to perform common activities of daily living	Consensus-derived percentages estimate of loss of activity, which reflects severity of impairment for a given health condition, and the degree of associated limitations in terms of Activities of Daily Living (ADLs).
Objective	Not in 5 <sup>th</sup> edition	In healthcare, objective refers to something, usually a physical finding or diagnostic test result, that can be perceived by an examiner using one or more senses without patient input. For example, one might see a scar, hear a heart murmur, smell alcohol on a patient's breath, feel a subcutaneous mass, or read an X ray or lab report. Objective data can often be measured. In general usage as an adjective, objective means based on observation or other data, and uninfluenced by one's attitudes, beliefs, biases, emotions, and/or prejudices (eg, an objective medical opinion or judicial decision. Compare with Subjective.

Occupational history	A tool used in a comprehensive clinical assessment to obtain, organize, and assess information about the current and prior workplace environments and exposures and their relationship to illness and injury. An occupational history can provide essential information to improve treatment, prevent further or additional illness or injury, and assist in the determination of whether work directly caused or contributed to the development of the injury or illness.	Acquisition, organization and assessment of information about an individual's prior and current work, including activities and exposures, duration thereof, and their possible relationship to illness and injury. An occupational history can provide information important in causation analysis and apportionment, specifically whether work caused or contributed to the condition or conditions, and it that may (sic) assist in treatment and/or prevention or minimization of further illness or injury.
Subjective	Not in 5 <sup>th</sup> edition	In health care, refers to that which is perceived, reported, and/or demonstrated by a patient but cannot be verified by an examiner on physical examination or via diagnostic tests. The adjective is most commonly used in the context of symptoms such as pain, but many physical findings are also subjective, including tenderness, range of motion, and strength. Tenderness or the absence thereof depends on verbal or nonverbal input from the patient,. Subjective complaints such as pain may be quantified, for instance, on a 0 to 10 scale, but are not measured. In general usage, subjective means colored by one's attitudes, beliefs, biases, emotions, and/or prejudices. Subjectivity may influence medical, judicial, or other opinions. Compare with Objective.
Whole person impairment	Percentages that estimate the impact of the impairment on the individual's overall ability to perform activities of daily living, excluding work.	Percentages that estimate the impact of the impairment on the individual's overall ability to perform Activities of Daily Living, excluding work.

## Appendix 2

### A. Diagnosis-Based Grid Template – Ratings for Whole Person Impairment Numeric Percentages

Diagnostic criteria	Class 0	Class 2	Class 2	Class 3	Class 4
<b>Ranges</b> – based on class & diagnosis. For musculoskeletal chapters, based on diagnosis-specific definitions	0%	Minimal %	Moderate %	Severe %	Very severe % (capped for all organ systems at 65%)
<b>GRADE (based on application of non-key factors)</b>	n/a	A B C* D E	A B C*D E	A B C* D E	A B C* D E
History / functional history	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Physical findings	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem
Test Results	No problem	Mild problem	Moderate problem	Severe problem	Very severe problem

\* “C” is the default grade within the Class. Non-key factors cannot change the Class, but can affect the Grade.

### B. (1) Pulmonary Impairment: Changes in WPI values from Fifth to Sixth Edition:

Class	5 <sup>th</sup> Edition WPI	6 <sup>th</sup> Edition WPI
0	n/a	0%
1	0%	2-10%
2	10-25%	11-23%
3	26-50%	24-40%
4	51-100%	45-65%

### (2) Hypertension Impairment: Changes in WPI values from Fifth to Sixth Edition:

Class	5 <sup>th</sup> Edition WPI	6 <sup>th</sup> Edition WPI
0	n/a	0%
1	0-9%	2-10%
2	10-29%	11-23%
3	30-49%	24-40%
4	50-100%	45-65%

## Appendix 3

### Whole Person Impairment Ratings for the Spine – Fifth and Sixth Edition

**Sixth Edition** - Table 17-1: Definition of Impairment Classes and Impairment Ranges (page 559)

		WPI	WPI	WPI
Class	Problem	Cervical Spine	Thoracic Spine	Lumbar spine
0	No objective findings	0	0	0
1	Mild	1-8%	1-6%	1-9%
2	Moderate	9-14%	7-11%	10-14%
3	Severe	15-24%	12-16%	15-24%
4	Very severe (“approaching total functional loss”)	25-30%	17-22%	25-33%

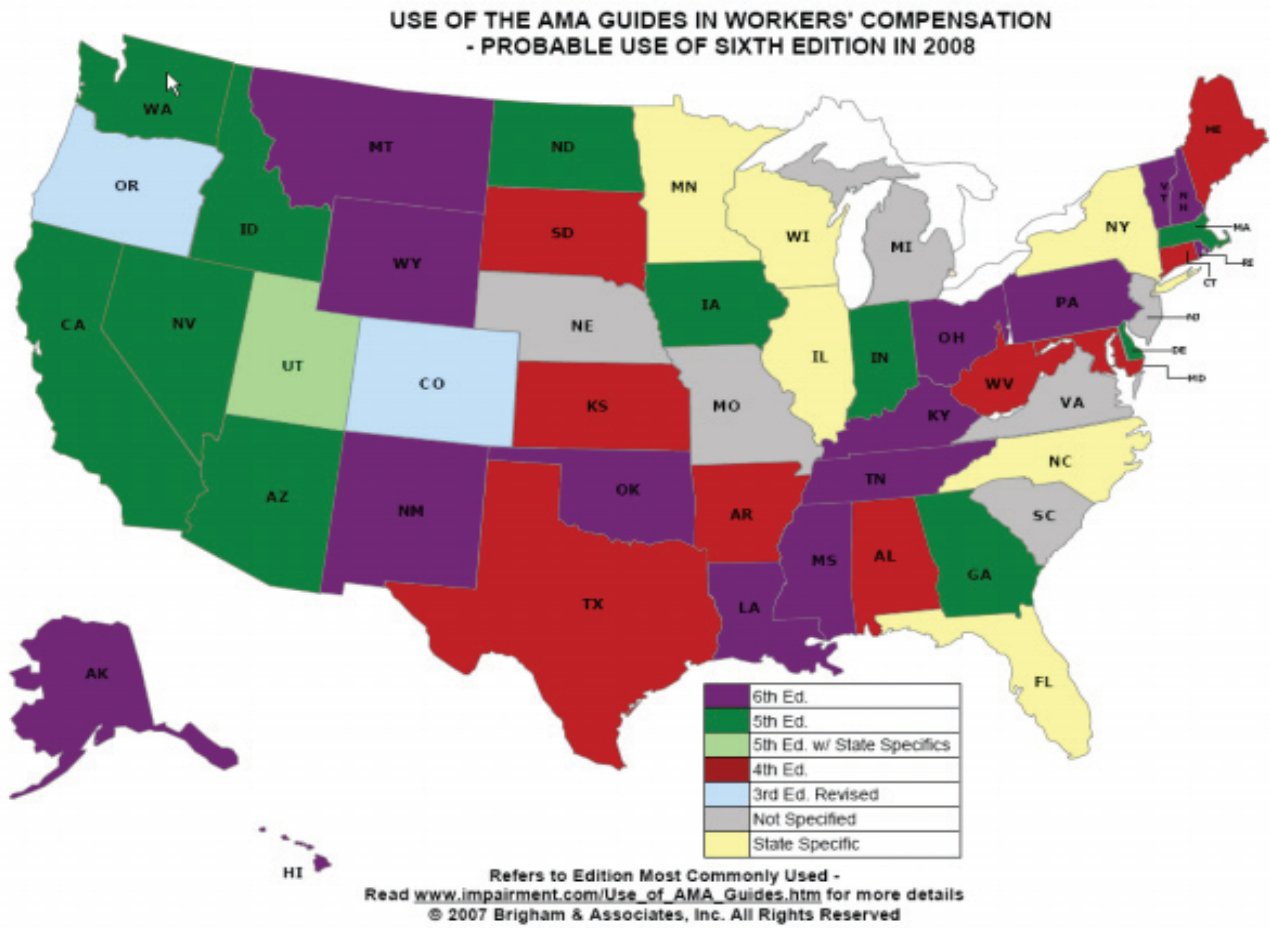
**Fifth Edition** - Ratings for equivalent ranges for cervical, thoracic and lumbar spine

Note: the exact descriptors are not the same in the Fifth Edition, but the descriptions of the impairments are similar

		WPI	WPI	WPI
Category	Problem	Cervical Spine	Thoracic Spine	Lumbar spine
I	No significant findings	0	0	0
II	Mild	5-8%	5-8%	5-8%
III	Moderate	15-18%	15-18%	10-13%
IV	Severe	25-28%	20-23%	20-23%
V	Very severe	35-38%	25-28%	25-28%

**Appendix 3:**

**Projected Use of the AMA Guides in State Workers' Compensation Cases**



**FIGURE 1:** Projected Use of the AMA Guides in State Workers' Compensation Cases

**Source:** Christopher R. Brigham, Elizabeth Genovese, Craig Uejo (2008) *AMA Guides Sixth Edition: New Concepts, Challenges and Opportunities*. *IAIABC Journal* 45(1) page 16.