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THE CONVENTIONAL WISDOM OF DISCHARGE ARBITRATION OUTCOMES AND REMEDIES: FACT OR FICTION

*Mario F. Bognanno, Jonathan E. Booth, Thomas J. Norman, Laura J. Cooper, and Stephen F. Befort**

Abstract

This study examines some of the arbitration community's commonly accepted beliefs about arbitration outcomes and remedies in employee discharge cases, with the findings revealing that some beliefs are likely fact, while others, perhaps, are fiction. With data from 1432 Minnesota discharge awards and 74 arbitrators who decided them, eight truisms are examined pertaining to the following: the frequency that arbitrators use Daugherty's Seven Tests *rubric to analyze case evidence and whether its use affects award outcomes; the distribution of varying quanta of required proof by arbitrators and how different quanta affects award outcomes; and the effect of employee job tenure and "last chance agreement" status on award outcomes. Using a subsample of "reinstatement with back pay" awards, we additionally examine the prevalence of arbitrators ordering how back pay should be computed and "retaining jurisdiction" over back pay cases.*

I. Introduction

Grievance arbitration is almost universal in the unionized sector of the United States. The U.S. Bureau of Labor Statistics reported that, in 2011, nearly 16.3 million employed workers were

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covered by collective bargaining agreements.[1] The vast majority of covered workers have the right to challenge employer decisions affecting contractual matters, including the right to bring discharge and discipline, or simply "just cause" grievances, before a neutral arbitrator for final resolution.[2] Further, data published by the Federal Mediation and Conciliation Service (FMCS) show that just cause grievances constitute a plurality of all grievance arbitration cases decided annually.[3] Records are not maintained on the number of just cause grievances heard annually in the United States, but a realistic estimate puts that number at about 20,000.[4]

The literature on grievance arbitration, its origins, legal foundation, and processes is large.[5] However, just cause grievance arbitration outcomes have not received as much attention from scholars. Thus, this study takes a step toward filling this information gap, as it relates specifically to discharge grievances. We have compiled a dataset based on 1432 discharge awards and the 74 arbitrators who decided them. Our dataset includes variables that are mainly coded categorical information about how the arbitrators decided each discharge case (i.e., the employer wins, nearly wins, nearly loses, or loses), and such additional details with which to test our hypotheses.

This study's purpose is to investigate the validity of some of the arbitration community's commonly held beliefs about em-

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1 U.S. Bureau of Labor Statistics, *available* at http://www.bls.gov/cps/cpsaat40.htm (last visited Mar. 1, 2012).

2 One survey found that 92% of collective bargaining agreements permitted employers to discharge or discipline employees only for "just cause" or "cause." *See* BUREAU OF NATIONAL AFFAIRS, BASIC PATTERNS IN UNION CONTRACTS, at 7 (14th ed. 1995). Also, arbitrators and the courts consider protection from unjust dismissal so integral to the collective bargaining relationship that they find this requirement exists even in contracts that do not contain an explicit "just cause" provision. *See*, *e.g.,* In re Superior Products, 116 LAB. ARB. REP. 1623 (Hockenberry, 2002); SFIC Properties, Inc. v. Machinists, District Lodge 94, 103 F.3d 923 (9th Cir. 1996).

3 The Federal Mediation and Conciliation Service reported that just cause grievance arbitrations constituted approximately 40% of all cases arbitrated in Fiscal Year 2009. The next largest category, wage disputes, represented about 5.4% of cases. *See* http://fmcs.gov/assets/files/Arbitration/FY%202009%20Statistics/Issues_Arbitrated.doc.

4 CHARLES J. COLEMAN, THE ARBITRATOR'S CASES: NUMBER, SOURCES, ISSUES, AND IMPLICATIONS, LABOR ARBITRATION IN AMERICA: THE PROFESSION AND PRACTICE (M. F. Bognanno & C. J. Coleman, eds., 1992).

5 *See, e.g.,* NORMAN BRAND, DISCIPLINE AND DISCHARGE IN ARBITRATION (Norman Brand et al. eds., 1998); LAURA J. COOPER, DENNIS R. NOLAN, RICHARD A. BALES & STEPHEN F. BEFORT, ADR IN THE WORKPLACE (3d ed. 2014); FRANK ELKOURI & EDNA ASPER ELKOURI, HOW ARBITRATION WORKS (6th ed. 2003); OWEN FAIRWEATHER, PRACTICE AND PROCEDURE IN LABOR ARBITRATION (2d ed. 1983); ROBBEN W. FLEMING, THE LABOR ARBITRATION PROCESS (1965); ADOLPH M. KOVEN & SUSAN L. SMITH, JUST CAUSE: THE SEVEN TESTS (2d ed. 1998).

ployee discharge arbitration cases, their outcomes and their remedies. Since conventional wisdom, by definition, is not necessarily true, the study's overarching research question encompasses whether the identified aspects of perceived truths in discharge arbitration are more so fact or fiction. We specifically investigate conventional beliefs and inference hypotheses regarding: (1) arbitrators use of Carroll R. Daugherty's *Seven Tests* rubric to analyze the evidentiary record of discharge cases and whether doing so affects the decisions that they render;[6] (2) the quantum of proof that arbitrators require in deciding discharge cases and whether requiring more stringent quanta impacts their discharge outcomes; (3) the influence of "last chance agreements" on arbitrator decisions; and (4) the impact of the grievant's job tenure on decisional outcomes.

Additionally, we have identified a sub-sample of discharge cases in which the arbitrator determined that the employer did not have just cause to discharge the grievant, and, as a remedy, ordered the grievant's reinstatement with either full or partial back pay. Using this sub-sample, we test the conventional propositions that arbitrators are likely to retain post-award jurisdiction over such cases and to issue remedial orders identifying the specific deductions that are to be made in calculating the amount of back pay that the grievant should receive.

II. Previous Literature

The just cause arbitration literature includes field and experimental studies that evaluate the effects of several variables on award outcomes. The constructs previously investigated are clustered under three categories, which include: arbitrator, grievant, and arbitration case characteristics. Scholars generally have shown these characteristics to correlate with just cause grievance arbitration outcomes. From a review of the literature, the arbitrator characteristics that have been investigated are the arbitrator's gender, age, experience, National Academy of Arbitrators (NAA) membership,[7] education, and occupation.[8] The grievant characteristics

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[6] Enterprise Wheel Co., 46 LA 359, 362 (Carroll R. Daugherty, 1966); Grief Bros. Cooperage Corp., 42 LA 555, 557-59 (Carroll R. Daugherty, 1964).

[7] The present study's proxy for "experience" is membership in the NAA. Throughout the study's sampling period, membership in the NAA required the applicants to have heard and decided at least fifty binding union-management awards within the previous five years. In 2008,

explored in the literature as influencing just cause arbitration outcomes are the grievant's gender, grievant and arbitrator gender match, and the grievant's tenure.[9] Finally, previous studies have focused on such arbitration case characteristics as sector, the parties' use of attorney representatives, the time delay between the date of the disciplinary action and the date that the arbitration award was rendered, as well as the type of offense being arbitrated.[10] Our dataset includes measures of these variables, and, when appropriate, the relationships we examine are estimated con-

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the NAA membership guidelines were modified, *see* National Academy of Arbitrators, Membership Guidelines, *available at* http://www.naarb.org/member_guidelines.html. Further, we did not control for the arbitrator's education because doing so violated the "parallel regression" assumption of ordinal logistic regression (OLR) analysis, which is subsequently discussed. However, we did control for the arbitrator's occupation, which is highly correlated with education.

8 Nels E. Nelson & Earl M. Curry. *Arbitrator Characteristics and Arbitral Decisions,* 20 IND. REL. 312, 312–17 (1981); Jack Stieber, Richard N. Block & Leslie F. Corbitt, *How Representative Are Published Arbitration Decisions?*, *in* ARBITRATION 1984: ABSENTEEISM, RECENT LAW, PANELS, AND PUBLISHED PAPERS, PROCEEDINGS OF THE THIRTY-SEVENTH ANNUAL MEETING OF THE NATIONAL ACADEMY OF ARBITRATORS 172–92 (W. J. Gershenfeld, ed., 1985); Nels E. Nelson, *The Selection of Arbitrators,* 37(10) LAB. L.J. 703–11 (1986); Allen Ponak, *Discharge Arbitration and Reinstatement in the Province of Alberta,* 42 ARB. J. 39–46 (1987); Brian Bemmels, *The Effect of Grievants' Gender on Arbitrators' Decisions,* 41(2) INDUS. & LAB. REL. REV. 251–62 (1988); Brian Bemmels, *Arbitrator Characteristics and Arbitrator Decisions,* 11(2) J. LAB. RES. 181–92 (1990); Brian Bemmels, *Attribution Theory and Discipline Arbitration,* 44(33) INDUS. & LAB. REL. REV 548–62 (1991); Clarence R. Deitsch & David A. Dilts, *An Analysis of Arbitrator Characteristics and their Effects on Decision Making in Discharge Cases,* LAB. L.J. 112–16 (Feb. 1989); Robert J. Thorton & Perry A. Zirkel, *The Consistency and Predictability of Grievance Arbitration Awards,* 43(2) INDUS. & LAB. REL. REV 294–306 (1990); Perry A. Zirkel & Philip H. Breslin, *Correlates of Grievance Arbitration Awards,* 24(1) JOURNAL OF COLLECTIVE NEGOTIATIONS IN THE PUBLIC SECTOR 45–54 (1995); Nels E. Nelson & A.N.M. Meshquat Uddin, *The Impact of Delay on Arbitrators' Decisions in Discharge Cases,* 23(2) LAB. STUD. J. 3–20 (1998); Laura J. Cooper, Mario F. Bognanno & Stephen F. Befort, *How and Why Labor Arbitrators Decide Discipline and Discharge Cases*, *in* ARBITRATION 2007: WORKPLACE JUSTICE FOR A CHANGING ENVIRONMENT, PROCEEDINGS OF THE SIXTIETH ANNUAL MEETING OF THE NATIONAL ACADEMY OF ARBITRATORS 420–59 (S.F. Befort & P. Halter, eds., 2008).

9 Ken Jennings & R. Wolters, *Discharge Cases Reconsidered,* 31(3) ARB. J. 164–180 (1976); Richard N. Block & Jack Steiber, *The Impact of Attorneys and Arbitrators on Arbitration Awards,* 40(4) INDUS. & LAB. REL. REV 543–55 (1987); Ponak, *supra* note 8; Clyde Scott & Elizabeth Shaodan, *The Effect of Gender on Arbitration Decisions,* 10 J. LAB. RES 429–36 (1989); Zirkel & Breslin, *supra* note 8; Nelson & Uddin, *supra* note 8; Cooper, Bognanno, & Befort, *supra* note 8.

10 Block & Steiber, *supra* note 9; Ponak, *supra* note 8; Bemmels, *supra* note 8; David A. Dilts & Edwin C. Leonard, Jr., *Win-Loss Rates in Public Sector Grievance Arbitration Cases: Implications for the Selection of Arbitrators,* 18 J. COLLECTIVE NEGOT. 337–44 (1989); Kenneth W. Thornicroft, *Arbitrators and Substance Abuse Discharge Cases: An Empirical Assessment,* LAB. STUD. J. 40 (1989); Debra Mesch, *Grievance Arbitration in the Public Sector: A Conceptual Framework and Empirical Analysis of Public and Private Sector Arbitration Cases,* 15 REV. PUB. PER ADMIN. 22–36 (1995); Zirkel & Breslin, *supra* note 8; Nelson & Uddin, *supra* note 8; Cooper, Bognanno, & Befort, *supra* note 8.

ditional on these variables' effects. Further, to our knowledge, we uniquely include in our controls whether the grievant was charged with a crime for the same conduct that formed the basis for the employer's discharge action.

III. Conventional Wisdom

A. *Discharge Award Outcomes*

1. Utilization of Daugherty's *Seven Tests* of Just Cause

The disciplinary clause in most collective bargaining agreements does not define the term "just cause." Rather, it leaves this task to arbitrators, legal scholars, and commentators. However, it is reported that no definition of just cause is more widely recognized and accepted than that first articulated nearly fifty years ago by Carroll Daugherty in his 1964 and 1966 awards, *Grief Bros. Cooperage Corp* and *Enterprise Wire* awards, respectively.[11] In their book, *Just Cause: The Seven Tests*, Koven and Smith observed:

> The basic elements of just cause which different arbitrators have emphasized have been reduced by Arbitrator Carroll R. Daugherty to seven tests. These tests, in the form of questions, represent the most specifically articulated analysis of the just cause standard as well as an extremely practical approach. The comprehensiveness of these tests, their utility, and *the widespread acceptance they have received* . . . led us to structure this book around them (emphasis added).[12]

It has been further stated that Daugherty's definition is widely used in materials designed for the training of arbitrators and labor arbitration advocates.[13] Similarly, the NAA's *Common Law of the Workplace* described Daugherty's definition as "undeniably influential."[14] Daugherty's *Seven Tests* are posed as seven questions,

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[11] Enterprise Wheel Co., 46 LA 359; Donald S. McPherson, *The Evolving Concept of Just Cause: Carroll R. Daugherty and the Requirement of Disciplinary Due Process,* 38 Lab. L.J. 387–403 (1987).

[12] Koven & Smith, *supra* note 5, at 23.

[13] John E. Dunsford, *Arbitral Decisions: The Tests of Just Cause, in* Arbitration 1989: The Arbitrator's Discretion During and After the Hearing, Proceedings of the Forty-Second Annual Meetings of the National Academy of Arbitrators 23–50 (G. W. Gruenberg, ed., 1990).

[14] Theodore J. St. Antoine, The Common Law of the Workplace: The Views of Arbitrators 202 (2d ed. 2005).

whereby a "no" answer to any one question ". . . normally signifies that just and proper cause does not exist."[15] In paraphrased form, Daugherty's seven questions are:

1. Was the grievant forewarned of the consequences for violating the rule/order?
2. Was the rule/order germane to the orderly, efficient, and safe operation of the business?
3. Was the alleged rule/order violation investigated prior to issuing discipline?
4. Was the employer's investigation conducted fairly and objectively?
5. Did the investigating "judge" find substantial evidence of employee guilt, as charged?
6. Does the employer apply its rule/penalties evenhandedly and without discrimination?
7. Was the level of meted out discipline reasonably related to the seriousness of the employee's proven offense and to the record of the employee's service?[16]

We did not measure whether a single "no" answer to any one of these seven questions resulted in decisions that the employee's discharge lacked just cause, as required by Daugherty's description of the common law of just cause. However, we did measure whether the rubric of the *Seven Tests*, as a unified defining formulation of the meaning of just cause, explicitly manifested itself in each award in our sample. To be clear, we coded whether the arbitrator followed Daugherty's rubric and not whether some of the inquiries posed by the *Seven Tests* were, individually, relevant to the arbitrator's decision, as they surely would be.[17]

The literature assumes that Daugherty's rubric enjoys "widespread acceptance" and is "undeniably influential," which, to us, seems to reasonably infer that his rubric is manifest in a majority of discharge awards and is utilized by a majority of the arbitrators

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15 Grief Bros., 42 LA 555, 557–59 (Carroll R. Daugherty, 1964).

16 *Id.*

17 See David A. Dilts & James S. Moore, *Do Arbitrators Use Just Cause Standards in Deciding Discharge and Discipline Cases? A Test,* 30 J. LAB. RES., 245–261 (2009). This study applied "machine learning" analysis to 256 discharge and discipline awards that were published in 2003 and 2004 by the Bureau of National Affairs. The study concluded that a common law of just cause was manifest in these awards because the arbitrators who decided them applied some or all of Daugherty's standards in the vast majority of the sampled awards, and, consequently, that their decisions were generally fair and consistent. However, this study did not examine whether a "single 'no' answer" to any one of Daugherty's seven questions resulted in a finding of no just cause. Thus, whether the study's arbitrators strictly adhered to Daugherty's prescription of a common law of just cause is unknown.

who issue these awards. With data about whether arbitrators assessed just cause by using the *Seven Tests*, the present study is perhaps the first with data about the proportion of discharge awards and the proportion of their deciding arbitrators that are premised on the *Seven Tests*: information that can be used to test these inferences. Based on this construction of conventional wisdom, these twin inferences are combined to form the following postulate:

Hypothesis 1A: *A significant proportion of all discharge awards issued per arbitrator utilized Daugherty's rubric.*

The next proposition stems from the inference that an arbitrator's mere use of Daugherty's rubric could result in a more rigorous evaluation of the evidence proffered by the employer at the just cause discharge hearing. Thus, arbitral analysis of record evidence based on Daugherty's seven evidentiary hurdles would presumably leave little room for employer error in its quest to prove just cause for discharging an employee. Statistically speaking, holding employers to Daugherty's predefined tests should reduce the probability of employer success. Therefore, the probability that the employer's discharge action will be upheld should be lower when arbitrators use Daugherty's *Seven Tests* than when the rubric is not called upon by the arbitrator. Accordingly, we also propose:

Hypothesis 1B: *If the arbitrator utilized Daugherty's rubric to analyze the case record then the probability that the employer's discharge action will be upheld is reduced.*

2. Quantum of Proof

A doctrine that has almost universal acceptance in disciplinary arbitration is that the employer bears the burden of proving just cause. Less widely accepted is the quantum of evidence that should be required in just cause arbitrations.[18] Nevertheless, as St. Antoine has suggested, the conventional wisdom is that "most" arbitrators embrace the lowest quantum standard, "preponderance of evidence," in deciding just cause grievances.[19] As in civil law, the preponderance quantum requires that the evidence presented by one party is more persuasive than that which is presented by the other party, on balance. It also asserts that a "minority" of arbitra-

[18] MARVIN HILL, JR. & ANTHONY V. SINICROPI, EVIDENCE IN ARBITRATION (1980); KOVEN & SMITH, *supra* note 5; ST. ANTOINE, *supra* note 14.

[19] ST. ANTOINE, *supra* note 14, at 191.

tors are said to use the intermediate standard, "clear and convincing evidence." However, when the alleged workplace offense involves a crime or moral turpitude (i.e., an offense that resulted in the employee having been charged with a crime or an offense involving, for example, dishonesty, off-the-job misconduct, violence and aggression, or drugs and alcohol), the conventional wisdom is that "most" arbitrators require clear and convincing evidence, while "some" arbitrators require the highest standard, "beyond a reasonable doubt." Typical of criminal litigation, this standard requires the evidence of one party to be far superior to that of the other party.[20]

Given the conventional wisdom based on St. Antoine's assessment, we hypothesize the following:

Hypothesis 2A: *"Most" arbitrators require the employer to prove its just cause discharge claim by a preponderance of evidence.*

Hypothesis 2B: *A "minority" of arbitrators requires the employer to prove its just cause discharge claim by clear and convincing evidence.*

Hypothesis 2C: *When the employee's workplace offense involves a crime or moral turpitude, "most" arbitrators require the employer to prove its just cause discharge claim by clear and convincing evidence, while "some" arbitrators require proof beyond a reasonable doubt.*

In addition to these generalizations, it can be logically inferred that as arbitrators hold employers to a more stringent quantum of proof, the probability that the employer will succeed in proving its just cause claim will decrease. As Dilts and Deitsch put it, the "inherent risk of failure for the party making and proving a claim" increases when more stringent quantum standards are applied.[21] Therefore, when clear and convincing evidence and proof beyond a reasonable doubt are expected of the employer, the chances that the employer's discharge action will be sustained will likely diminish. Thus, we hypothesize the following:

Hypothesis 2D: *The probability that the employer's discharge action will be upheld decreases when arbitrators require more strin-*

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[20] ST. ANTOINE, *supra* note 14, at 192.

[21] Dilts & Deitsch, *supra* note 16, at 43–44.

gent quantum standards (i.e., clear and convincing evidence and proof beyond a reasonable doubt).

3. Last Chance Agreements

A "last chance agreement" is a contract signed by the employer and the union, and/or the employee, in which the employer agrees to reinstate a discharged employee with the understanding that said reinstatement is the employee's last chance at behavioral modification and to work up to expectations. Last chance agreements often grant the employer the expressed discretion to discharge the employee for a subsequent offense, and, further, the agreement may expressly state or be interpreted that any subsequent disciplinary sanction cannot be arbitrated.

If an employee is discharged for violating a last chance agreement and the discharge is challenged in arbitration, the employer's burden is generally lighter, since the employer only needs to prove (1) that the alleged offense occurred and (2) that there was no reasonable basis for its occurrence.[22] This lighter burden supplants the more demanding standard of "just cause" when the discharged employee was on a last chance agreement at the time of discharge. For these reasons, conventional wisdom holds that a majority of arbitrators would enforce the discharge penalty, "if the actions or conduct by the employee is found to violate the last-chance agreement".[23] Similarly, *The Common Law of the Workplace* states: "An arbitrator must abide by the terms of a last-chance agreement fairly negotiated between an employer, an employee, and (where applicable) the union representing the employee."[24] These generalizations are recast to form the following:

Hypothesis 3: *The probability that the arbitrator will uphold the employer's discharge action increases if the discharged grievant was on a last chance agreement at the time.*

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[22] KOVEN & SMITH, *supra* note 5; Donald S. McPherson & Burt R. Metzger, *"Last Chance" Discharges at Arbitration: Emergent Standards of Judicial Review*, *in* PROCEEDINGS OF THE FORTY-SIXTH ANNUAL MEETINGS OF THE INDUSTRIAL RELATIONS RESEARCH ASSOCIATION 315–23 (P. B. Voos, ed.) (Industrial Relations Research Association 1994); Donald J. Peterson, *Last Chance Agreements,* 52 DISP. RES. J. 37–43 (1997); BRAND, *supra* note 5; ELKOURI & ELKOURI, *supra* note 5; ST. ANTOINE, *supra* note 14.

[23] ELKOURI & ELKOURI, *supra* note 5, at 973.

[24] ST. ANTOINE, *supra* note 14, at 173.

4. Grievant's Job Tenure

The common law of "just cause," among other things, entitles the employee to due process, equal protection, and specific mitigating considerations, such as the employee's work record and good faith intentions. In addition, arbitral jurisprudence treats an employee's length of service with the employer—a dimension of the employee's work record—as a mitigating factor that arbitrators consider when evaluating the appropriateness of the employer's discipline. For instance, Elkouri and Elkouri, *How Arbitration Works* asserts that "long service with a company, particularly if unblemished, is a definite factor in favor of the employee whose discharge is reviewed through arbitration."[25] *The Common Law of the Workplace* states that "an employee's seniority" is a specific mitigating factor.[26]

The rationale underlying this belief is that loyal, long-term employees have more to lose when discharged than do their short-term co-workers, and, therefore, the former merits favorable differential treatment. Accordingly, the expectation is that the employer's decision to discharge is less likely to be sustained when the employee's length of service is long. However, conventional wisdom usually expresses this hypothesis in conditional terms, evaluating the employee's length of service, while simultaneously considering other employee work record dimensions, such as job performance, the egregiousness of the employee's instant offense, whether the employee's record includes previous offenses, and whether the grievant was under a last chance agreement, or charged with a crime. Along with tenure, these job performance and discipline dimensions comprise "the record of the employee's service," as this phrase is used in Daugherty's question number seven, and collectively serve as a basis for mitigating the discharge penalty, and, thus, affect the arbitrator's discharge decision.

Grievant tenure effects on discharge outcomes, to our knowledge, have been examined only once before, and that investigation may have limitations. Nelson and Uddin found that the probability of a discharged employee's reinstatement significantly increases with seniority.[27] However, in regard to the employee's work record dimensions, these scholars only controlled for the employee's offense type. Therefore, their significant tenure finding may be due to uncontrolled aspects of the employee's work record. In addition

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25 ELKOURI & ELKOURI, *supra* note 5, at 988.

26 ST. ANTOINE, *supra* note 14, at 160.

27 Nelson & Uddin, *supra* note 8.

to controlling for the employee's offense type, our examination of tenure effects also takes into account whether the grievant was working under a last chance agreement and whether the grievant was charged with a crime for the same conduct that resulted in the discharge. However, like Nelson and Uddin, we were unable to control for the effects that the employee's job performance and record of previous offenses may have had on the arbitrator's discharge award. Thus, these limitations could bias our estimated partial relationships between the discharge arbitration outcomes and the employee's tenure. Nevertheless, based on the forgoing, the conventional wisdom in question can be expressed as follows:

Hypothesis 4: *The probability that the employer's discharge action will be upheld decreases as the length of the employee's tenure increases*.

B. *Discharge Award Remedies*

1. Jurisdiction and Back Pay Reductions

From our sample of discharge decisions, we evaluated a subsample of awards in which the arbitrator overturned the employer's discharge decision, and, as a remedy, ordered that the grievant's employment be reinstated with either partial or full back pay. Using this data, we examined two additional generalized beliefs about specific remedial provisions that arbitrators presumably include in their awards. To our knowledge, neither of the following propositions has previously been tested.

Post-award disputes between labor and management can arise over the amount of back pay payable to reinstated employees. To mitigate this reality, arbitrators are believed to take two affirmative steps. First, arbitrators presumably retain post-award jurisdiction over these cases to supervise the enforcement of their back pay orders, and, specifically, to determine any dispute that may arise over the amount of back pay due to the employee. When arbitrators fail to retain post-award jurisdiction, disputes of this nature can either result in litigation, where the court is asked to enforce the arbitration's reinstatement/back pay award, or in arbitration, where the matter of "amount due" is remanded to the arbitrator of record for determination, or where it is heard *de novo* by a different arbitrator.

Second, to be fair and to ensure that their monetary remedies are not perceived as windfalls, it is commonly thought that arbitra-

tors are careful to reduce their ordered back pay: (1) by the amount of interim wages that the reinstated employee may have earned at another job, and/or by the amount of public unemployment compensation payments that the employee may have received during the discharge period; and (2) by an equivalent amount of wages that could have been earned, but were not because the grievant failed to look for work, or did not accept an equivalent job offer during the discharge period. Illustrations of these aspects of conventional wisdom are set forth in self-explanatory quotes from *The Common Law of the Workplace*:

Jurisdiction

> Once it is determined that a back pay award is appropriate, an arbitrator may remand the task of computation to the parties. Such a remedy is *usually*, but not always, accompanied by retention of jurisdiction by the arbitrator in the event that there is a subsequent dispute over the amount (emphasis added);[28]

Reduction in Back Pay

> *With few exceptions*, arbitrators, like the courts and the NLRB, will deduct actual interim earnings and willfully incurred losses from an order of back pay . . . Failure by the employee to search for alternative work or a refusal to accept substantially equivalent employment will result in a corresponding reduction in a back pay award (emphasis added).[29]

Based on these assertions, we formulate the following hypotheses:

Hypothesis 5*: Arbitrators "usually" retain jurisdiction when back pay is awarded to the reinstated grievant.*

Hypothesis 6: *Arbitrators, "with few exceptions," will deduct actual interim earnings and willfully incurred losses from orders to reinstate the discharged grievant with back pay.*

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[28] ST. ANTOINE, *supra* note 14, at 374.

[29] ST. ANTOINE, *supra* note 14, at 376.

IV. METHOD

A. *Data and Variables*

We coded 1432 discharge awards that were issued between 1982 and 2005 by seventy-four arbitrators. All of these awards were filed with the Minnesota Bureau of Mediation Services (BMS), and each involved a Minnesota public or private sector bargaining unit. By agency rule, the arbitrators on the BMS roster of arbitrators are required to submit all of the awards that they issue involving Minnesota work sites, regardless of the source of appointment or selection (e.g., BMS, FMCS, or the American Arbitration Association). The only exception to this rule is that a private sector party may refuse to permit the release of an award.[30] Accordingly, our sample is a rough approximation of the population of discharge awards rendered in Minnesota during the sampling period.[31] We coded thirty-six different aspects of every discharge award filed with the BMS during the sampling period and merged these data with generally available biographical information about the deciding arbitrators. Due to coding complexities, we omitted discharge awards that involved multiple grievants.

From this information, we created arbitrator, grievant, and arbitration case characteristic control variables, as previously identified in the literature, the conventional wisdom and inference variables of principal interest herein, and the ordered categorical dependent variable—discharge award outcome—that is used in

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[30] Minnesota Rules, Chapter 5530.08, subpart 9, requires arbitrators to file their public and private sector awards with the BMS. Specifically, the rule states: "Unless one or both private sector parties have specifically requested that an award not be provided to the commissioner, arbitrators shall submit copies of all awards involving Minnesota work sites to the commissioner regardless of the source of appointment or selection. Awards filed with the commissioner are public documents."

[31] Primarily, because we are unaware of any national survey of discharge awards, or, for that matter, any field study based on a sample from the "population" of discharge awards, there is no objective basis for assessing whether the Minnesota sample is representative of all discharge awards issued nationally. Mindful of these facts, see Phillip H. Breslin and Perry A. Zirkel, *Arbitrator Impartiality and the Burden of Proof,* 44(6) LAB. L.J. 381–84 (1993). Breslin & Zirkel surveyed 166 Bureau of National Affairs and Commerce Clearing House discharge awards that were published in 1986. Based on these awards, they reported a management win, union win, and split award distribution of 51.2%, 12%, and 36.7%, respectively. The distribution of our 1432 discharge awards across these three outcome categories is 52.4%, 19.8%, and 27.8%. The two distributions are relatively similar; however, our dataset is larger and includes both published and unpublished awards; the compared study is based on published awards, which are not represented as being representative.

our models of arbitrator decision making. Specifically, each award's outcome was coded as a one to four consecutive integer. We arbitrarily assigned a one to the employer's "best" award outcome (i.e., when the arbitrator denied the grievance, finding just cause for the employer's discharge action); two to the employer's "next best" award outcome (i.e., when the arbitrator modified the employer's discharge action, reinstating the grievant without back pay); three to the employer's "near worst" award outcome (i.e., when the arbitrator modified the employer's action, reinstating the grievant with partial back pay); four to the employer's "worst" award outcome (i.e., when the arbitrator upheld the grievance, reinstating the grievant with full back pay). Table 1 presents definitions of the study's variables.

TABLE 1. VARIABLE DEFINITIONS

Discharge Award Outcome	**Dependent Variable** 1-arbitrator denied the grievance, finding just cause for the employer's discharge action; 2-arbitrator modified the employer's discharge action by reinstating the grievant without back pay; 3-arbitrator modified the employer's discharge action by reinstating the grievant with partial back pay; and 4-arbitrator upheld the grievance and ordered the reinstatement of the grievant with full back pay.
Independent Variables **<u>Conventional Wisdom Variables</u>**:	
Seven Tests	A categorical variable equal to 1 if the arbitrator utilized Daugherty's Seven Tests, 0 otherwise.
Quantum	A categorical variable equal to 1 if the arbitrator specified preponderance of evidence as the standard, 0 otherwise; 1 if the arbitrator specified clear and convincing evidence as the standard, 0 otherwise; 1 if the arbitrator specified beyond a reasonable doubt as the standard, 0 otherwise. The omitted group includes awards where the arbitrator did not specify the quantum of proof standard that was required to determine the matter.
Last Chance	A dummy variable equal to 1 if the grievant was working under the terms of a "last chance agreement" at the time of discharge, 0 otherwise.
Tenure	A categorical variable equal to 1 if the grievant had worked for the employer for less than a year, 0 otherwise; from 1 to less than 5 years, 0 otherwise; from 5 to less than 10 years, 0 otherwise; from 10 to less than 20 years, 0 otherwise; for an unknown number of years, 0 otherwise. The omitted group includes awards where the grievant worked for the employer for 20 or more years.
Jurisdiction[a]	If the arbitrator reinstated the grievant with partial or full back pay: a categorical variable equal to 1 if the arbitrator retained jurisdiction to decide subsequent disputes between the parties with regard to remedy, 0 otherwise.
Reduction[a]	If the arbitrator reinstated the grievant with partial or full back pay: a categorical variable equal to 1 if the arbitrator's award states that the amount of back pay is to be reduced by the employee's interim earnings or the employee's failure to mitigate by seeking employment, 0 otherwise.

TABLE 1. VARIABLE DEFINITIONS (CONTINUED)

Control Variables	
Arbitrator Characteristics:	
Gender	A dummy variable equal to 1if the arbitrator is female, 0 otherwise.
Age	A continuous variable indicating the arbitrator's age at the time the award was issued.
Experience –(NAA)	A dummy variable equal to 1 if the arbitrator was a member of the NAA at the time that the award was issued, 0 otherwise.
Occupation	A categorical variable equal to 1 if the arbitrator was neither employed as an attorney or academic, 0 otherwise; 1 if the arbitrator was employed as an attorney, 0 otherwise; 1 if the arbitrator was employed as an academic, 0 otherwise; 1 if the arbitrator was both employed as an attorney and academic, 0 otherwise.
Grievant Characteristics:	
Gender	A dummy variable equal to 1 if the grievant is female, 0 otherwise.
Gender Match	A dummy variable equal to 1 if the gender of the arbitrator and grievant are the same, 0 otherwise.
Arbitration Case Characteristics:	
Sector	A dummy variable equal to 1 if the grievant worked in the private sector, 0 otherwise.
Attorney Representation	A categorical variable equal to 1 if only the union was represented by an attorney, 0 otherwise; equal to 1 if only the employer was represented by an attorney, 0 otherwise; equal to 1 if both the union and the employer were represented by an attorney, 0 otherwise. The omitted group includes awards where an attorney represented neither the union nor the employer.
Delay	A continuous variable that measures the number of days between the date of the alleged offense and the date the arbitration award was issued.
Crime	A dummy variable equal to 1 if the grievant was charged with a crime for the same conduct that formed the basis for the employer's disciplinary actions, 0 otherwise.
Alleged Offense	A categorical variable equal to 1 if the alleged offense involved violence and aggression, 0 otherwise; equal to 1 if the alleged offense involved attendance, 0 otherwise; equal to 1 if the alleged offense involved dishonesty, 0 otherwise; equal to 1 if the alleged offense involved drugs or alcohol, 0 otherwise; equal to 1 if the alleged offense involved on-the-job misconduct, 0 otherwise; equal to 1 if the alleged offense involved off-the-job misconduct, 0 otherwise; equal to 1 if the alleged offense involved insubordination, 0 otherwise; equal to 1 if the alleged offense involved job performance, 0 otherwise. The omitted group includes awards for all other types of alleged offenses.
Year	A categorical variable equal to 1 if the arbitrator's award was issued in a given year; 0 otherwise. Twenty-three dummy variables are used to control for year effects. The omitted year is 1983. To conserve space, this variable's estimated coefficients are not reported.
Arbitrator	A categorical variable equal to 1, if a given arbitrator issued the award, 0 otherwise. Seventy-three dummy variables are used to control for arbitrator effects. An unidentified arbitrator is omitted. To conserve space, this variable's estimated coefficients are not reported.

[a] Jurisdiction and Reduction are determined from a sub-sample of the discharge awards that include reinstatement decisions with full or partial back pay (i.e., 432 cases out of the 1432 cases in the sample). Therefore, Jurisdiction and Reduction were not included in the full sample OLR analyses.

B. *Models*

A generalized form of our model of discharge arbitration outcome determinants can be expressed as $O_{it} = f(CW_{it} \mid A_{it}, G_{it}, C_{it}, m, n) + \varepsilon_{it}$, where O_{it} is the i^{th} discharge award's outcome in time period t. CW_{it} (short for "Conventional Wisdom") is our set of principal exogenous influences on $O_{it,}$ which are conditional on the effects of A_{it}, G_{it}, C_{it}, m and n. A_{it}, G_{it}, and C_{it} denote our set of arbitrator, grievant, and arbitration case characteristic control variables, and m and n are year and arbitrator specific effects, respectively; ε is a random error term. Our basic Model 1 ignores m and n. Next, we expanded Model 1 to include m dummy variables that control for unmeasured and unobserved effects on arbitral decision making that are correlated with each year in our sampling period (Model 2). Finally, we again expanded our models to include n dummy variables controlling for fixed arbitrator effects (Model 3).

C. *Analytical Approach*

Since our dependent variable is comprised of four inherently ordered categories, we utilized ordinal logistic regression (OLR) to estimate our models and to test hypotheses that predict arbitral discharge outcomes. Utilization of OLR is premised on the "parallel regression" or "proportional odds" assumption that the coefficient estimates across ordinal outcome categories are equivalent, thus obviating the need to estimate separate models for each category of the dependent variable.[32] A Brant test was used to assess this assumption. As reported in Table 3, the Brant test result was insignificant (i.e., $\chi^2(68)=79.79$, p=.09), implying that the parallel regression assumption was not violated.[33]

Our Stata 12 OLR results are also reported in Table 3. With the one through four coding of our dependent variable, a significantly *positive* OLR coefficient is interpreted to mean that an increase in CW_{it} value will increase the probability of higher-number

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[32] SCOTT J. LONG & JEREMY FREESE, REGRESSION MODELS FOR CATEGORICAL DEPENDENT VARIABLES USING STATA (2006).

[33] LONG & FREESE, *supra* note 31; Jerry Hausman & Daniel L. McFadden, *Specification Tests for the Multinomial Logit Model, in* 52(5) ECONOMETRICA 1219–240 (1984); Rory Wolfe & William Gould, *An Approximate Likelihood-Ratio Test for Ordinal Response Models, in* 7(42) STATA TECH. BULLETIN 24–27 (1998); JEFFREY WOOLDRIDGE, ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA (2002).

O_{it} outcomes, favoring the grievant/union. Conversely, a significantly *negative* coefficient means that an increase in CW_{it} value will increase in probability of lower-number O_{it} response outcomes, favoring the employer. To further facilitate the interpretation of the OLR coefficient estimates, we calculated their corresponding marginal effects (Table 4), which are defined as the percentage change in the probability of a specific award outcome in response to a discrete 0-to-1 change in a dichotomous CW_{it} variable, all other variables held constant at mean values. To conserve space, we only present the marginal effects in Table 4 corresponding to the CW_{it} estimates in Model 3, Table 3.

For the hypotheses that require examining whether observed proportions from our sample are aligned with hypothetical proportions, as prescribed by conventional arbitration wisdom and related inferences, we used two-tailed binomial tests. We also utilized Wilson's confidence intervals (CI) to account for sampling error for a given sample proportion. If the expected proportion falls within the interval determined by the observed sample proportion and significance level desired, then the observed and expected proportions are assumed to be similar.

V. RESULTS

A. *Descriptive Statistics*

Table 2 presents the study's variable means, standard deviations, and number of observations. The discharge outcome variable has a mean value of 1.97, which means that the discharge awards rendered by arbitrators tend to favor outcomes that employers prefer. Table 2's footnote shows that arbitrators sustained the employer's discharge actions in 52.4% of cases, while upholding the grievance in only 19.8% of cases. The remaining share of discharge awards ordered the grievant's reinstatement without back pay (17.4%) and with partial back pay (10.4%).

TABLE 2. DESCRIPTIVE STATISTICS

	Mean	Standard Deviation	N
Dependent Variable:			
Discharge Outcome[a]	1.97	1.19	1432
Conventional Wisdom Variables:			
Seven Tests:			
Arbitrator utilized	0.09	0.29	135
Quantum:			
Preponderance of the evidence standard	0.10	0.30	142
Clear and convincing standard	0.12	0.33	174
Beyond a reasonable doubt standard	0.02	0.14	29
No specific standard (omitted group)	0.76	0.43	1087
Last Chance:			
Grievant on a last chance agreement	0.11	0.32	162
Tenure:			
< 1 Year of service	0.05	0.23	78
1-5 Years of service	0.25	0.43	359
5-10 Years of service	0.23	0.42	330
10-20 Years of service	0.24	0.43	344
Unknown years of service	0.11	0.32	162
20+ Years of service (omitted group)	0.11	0.31	159
Jurisdiction: Arbitrator retains jurisdiction to decide subsequent disputes	0.27	0.44	115[b]
Reduction: Arbitrator reduces back pay	0.47	0.50	204[b]
Control Variables: **Arbitrator Characteristics:**			
Gender	0.17	0.37	241
Age at time award issued	57.27	9.65	1432
NAA member	0.54	0.50	772
Occupation:			
Employed as an attorney	0.40	0.49	570
Employed as an academic	0.33	0.47	472
Employed as both an attorney and an academic	0.01	0.11	18

TABLE 2. DESCRIPTIVE STATISTICS (CONTINUED)

Neither employed as an attorney or an academic (omitted group)	0.26	0.44	372
Grievant Characteristics:			
Gender	0.24	0.43	349
Gender Match	0.68	0.47	978
Arbitration Case Characteristics:			
Sector	0.51	0.50	727
Attorney Representation:			
Union only representation	0.09	0.28	126
Employer only representation	0.26	0.44	367
Both parties represented	0.46	0.50	655
Parties not represented (omitted group)	0.20	0.40	284
Delay	275.23	174.40	1432
Crime	0.06	0.24	91
Alleged Offense:			
Violence and Aggression	0.17	0.38	245
Attendance	0.19	0.39	267
Dishonesty	0.19	0.39	269
Drugs and Alcohol	0.05	0.21	69
On-the-Job Misconduct	0.05	0.21	68
Off-the-Job Misconduct	0.04	0.19	56
Insubordination	0.12	0.32	169
Performance	0.19	0.40	277
Other (omitted group)	0.01	0.09	12
N =	1432		

[a] Discharge outcomes: 1 - 52.4% (N=750); 2 - 17.4% (N=249); 3 - 10.4% (N=149); 4 - 19.8% (N=284)

[b] In contrast to the other descriptive statistics, Jurisdiction and Reduction come from a sub-sample of 432 reinstatement cases with full or partial back pay.

B. *OLR Model Significance and Variance Estimation*

All three of the OLR χ^2s in Table 3 are $p<.01$, suggesting that our models are statistically significant. Also, it is noteworthy that the χ^2 and pseudo-R^2 estimates exhibit inter-model stepwise increases in magnitude. This can be interpreted to mean that the year-specific effects in Model 2 and the year and arbitrator specific

effects in Model 3 are capturing important award outcome influences. For example, after arbitrator specific effects are taken into account, the pseudo-R^2 in Table 3 increased by 43% from .053 in Model 2 to .076 in Model 3. Hence, explaining arbitrators' discharge outcomes may partly depend on the specific arbitrator who decided the case.

TABLE 3. DISCHARGE AWARDS: ORDERED LOGIT ESTIMATES

	Model 1		**Model 2**		**Model 3**	
Conventional Wisdom Variables:						
Seven Tests:						
Arbitrator utilized	-0.150		-0.176		-0.172	
	(0.189)		(0.193)		(0.233)	
Quantum:						
Preponderance of the evidence standard	0.362	**	0.355	*	0.399	*
	(0.180)		(0.185)		(0.204)	
Clear and convincing standard	0.714	***	0.751	***	0.795	***
	(0.160)		(0.163)		(0.190)	
Beyond a reasonable doubt standard	0.832	**	0.868	**	0.822	**
	(0.375)		(0.382)		(0.403)	
Last Chance:						
Grievant under last chance agreement	-0.890	***	-0.911	***	-0.965	***
	(0.190)		(0.193)		(0.202)	
Tenure:						
< 1 Year of service	-0.268		-0.245		-0.289	
	(0.272)		(0.276)		(0.288)	
1-5 Years of service	-0.232		-0.193		-0.251	
	(0.190)		(0.194)		(0.204)	
5-10 Years of service	0.093		0.130		0.090	
	(0.189)		(0.195)		(0.203)	
10-20 Years of service	-0.332	*	-0.326	*	-0.380	*
	(0.189)		(0.193)		(0.202)	
Unknown years of service	-0.061		0.031		0.056	
	(0.228)		(0.233)		(0.250)	
Control Variables:						
Arbitrator Gender	0.081		0.084			
	(0.175)		(0.179)			
Arbitrator Age	0.009		0.010		0.051	
	(0.006)		(0.006)		(0.037)	
Arbitrator was a NAA Member	-0.343	***	-0.349	***	-0.273	

TABLE 3. DISCHARGE AWARDS: ORDERED LOGIT ESTIMATES (CONTINUED)

	(0.113)		(0.120)		(0.218)	
Occupation:						
Attorney	0.539	***	0.538	***		
	(0.143)		(0.146)			
Academic	0.347	**	0.324	**		
	(0.145)		(0.148)			
Both attorney and academic	0.361		0.261			
	(0.457)		(0.465)			
Gender of Grievant	0.163		0.131		0.065	
	(0.160)		(0.162)		(0.171)	
Arbitrator/Grievant Gender Match	0.031		-0.010		-0.018	
	(0.159)		(0.160)		(0.168)	
Private Sector Employer	0.252	**	0.215	*	0.133	
	(0.112)		(0.116)		(0.126)	
Attorney Representation:						
Union only	0.309		0.298		0.242	
	(0.205)		(0.209)		(0.217)	
Employer only	-0.432	***	-0.450	***	-0.441	***
	(0.158)		(0.160)		(0.167)	
Union and employer	0.062		0.070		0.065	
	(0.138)		(0.142)		(0.149)	
Delay	-0.0016	*	-0.0016	*	-0.0017	**
	(0.0013)		(0.0013)		(0.0013)	
Crime	-0.519	*	-0.477	*	-0.452	
	(0.281)		(0.285)		(0.298)	
Alleged Offense:						
Violence and Aggression	-1.015		-1.052	*	-1.090	*
	(0.631)		(0.628)		(0.653)	
Attendance	-0.989		-1.031		-0.997	
	(0.630)		(0.627)		(0.654)	
Dishonesty	-1.007		-1.120	*	-1.072	
	(0.630)		(0.628)		(0.655)	
Drugs or Alcohol	-1.356	**	-1.451	**	-1.397	**
	(0.670)		(0.670)		(0.700)	
On-the-Job Misconduct	-0.656		-0.726		-0.692	
	(0.657)		(0.657)		(0.683)	
Off-the-Job Misconduct	-0.321		-0.437		-0.480	
	(0.703)		(0.704)		(0.732)	
Insubordination	-0.594		-0.666		-0.706	
	(0.634)		(0.633)		(0.660)	

TABLE 3. DISCHARGE AWARDS: ORDERED LOGIT ESTIMATES (CONTINUED)

Job Performance	-1.426	**	-1.466	**	-1.537	**
	(0.632)		(0.629)		(0.655)	
Year Effects		No		Yes		Yes
Arbitrator Effects		No		No		Yes
Log pseudo likelihood	-1641.29		-1624.80		-1586.66	
N	1432		1432		1432	
χ^2	150.08	***	183.05	***	259.32	***
Pseudo R^2	0.044		0.053		0.076	
Brant χ^2	79.79 p=0.09					

P < .01***, p < .05**, p < .10*; Two-tailed tests

1. Daugherty's *Seven Tests*

9.4%, or 135, of our 1432 discharge awards evidenced the actual utilization of Daugherty's rubric, and 32.4%, or twenty-four, of the sample's seventy-four arbitrators did so in at least one of their decisions. Therefore, the average caseload using the *Seven Tests'* system was 7.5% (SD=.18) across all arbitrators under study.

We interpret expressions like "widespread acceptance" and "undeniably influential" with reference to Daugherty *Seven Tests* to mean that at least 50% of all discharge awards issued per arbitrator utilized this analytical system. However, the binomial test showed a significant difference at p<.001 between the sample's 7.5% proportion and the hypothetical proportion of 50%. The expected .50 also did not fall within Wilson's confidence interval (CI_{95}=.062, .090). These results, therefore, do not support Hypothesis 1A.

In addition, the estimated OLR coefficients in Table 3 show that the effect of arbitrators following Daugherty's rubric on award outcomes was insignificant at p<.05. Thus, Hypothesis 1B is also not supported. We further discerned the arbitrators' decisions in these *Seven Tests* cases and found that, contrary to expectation, the arbitrators in seventy-seven out of the 135 cases using Daugherty's rubric (or 57%) upheld the employer's discharge actions.

2. Quantum of Proof

9.9%, or 142, of 1432 discharge awards actually stated that preponderance was the quantum standard applied, and 52.7%, or thirty-nine, of seventy-four arbitrators explicitly expressed the application of the preponderance quantum in at least one of their

discharge decisions. These thirty-nine arbitrators did so, on average, in 24.4% of the decisions that they issued. Yet, across all seventy-four arbitrators, the average caseload explicitly referencing the preponderance standard was 12.8% (SD=.23) per arbitrator. Substantively, this proportion of the current sample seems to contradict the belief that "most" arbitrators require employers to prove just cause claims by a preponderance of the evidence. However, as we subsequently show, a more in-depth analysis appears to support the opposite conclusion.

We begin this analysis by pointing out that 76%, or 1087, of the dataset's awards did not identify an applicable quantum standard (see Table 2). Seemingly corroborating the above result, Breslin and Zirkel found that 5.7%, or thirty-four of 601 arbitration awards of all types, mentioned a specific quantum of proof.[34] However, while it appears common for most discharge awards to not explicitly state a quantum standard, this does not necessarily mean that the arbitrators who issued them did not have a decisional standard in mind.

After all, the choice between the employer's claim of a just cause discharge and the union's counter-claim requires some quantum of proof, even if unstated. Hence, for two reasons, we postulated that when an award does not specify a quantum standard, the arbitrator implicitly required preponderance. First, conventional wisdom holds that "most" arbitrators base their discharge decisions on preponderance, and this received view may be correct. Second, preponderance is the quantum standard used in most civil (or contract) lawsuits, and, given the similarity between civil cases and just cause grievances, preponderance may be "understood" to be the quantum standard used in arbitration, and, thus, perhaps, expressly to state as much in the just cause award is a needless redundancy. Continuing this reasoning, arbitrators may warrant it necessary specifically to identify the required quantum standard only when the decision requires a higher standard (e.g., clear and convincing evidence and guilt beyond a reasonable doubt).

Our OLR estimations provide a way to test this postulate. Note the "Preponderance of the evidence standard" coefficient in Table 3, Model 3, is insignificantly different from the comparison category, "No specific standard," at the 5% level. Therefore, the effect on the arbitrator's just cause decision is essentially the same whether the award identifies preponderance as the applicable stan-

[34] Breslin & Zirkel, *supra* note 30.

dard, or is silent with respect to a specific standard. To further test this equivalency idea, we ran OLR analyses with preponderance and "No specific standard" combined as the omitted group. Both clear and convincing (β=0.74, p<.001) and proof beyond a reasonable doubt (β=0.80, p<.05) coefficients remained significantly positive compared to this combined dichotomous variable. This result implies that preponderance is, perhaps, the quantum standard—the "default" standard—that arbitrators require when the issued award does not reference a specific quantum.

This finding invited a reevaluation of our preponderance data, which showed that 86%, or 1232, of the sample's 1432 discharge awards either specified preponderance as the applicable standard, or were silent regarding same (see Table 2). 97.3%, or seventy-two of our seventy-four arbitrators, required preponderance, explicitly or implicitly, in at least one decision. Therefore, arbitrators, on average, required proof by a preponderance of evidence in 85.2% of their respective discharge decisions (SD=.23). Hence, if the quantum of proof required by "most" arbitrators in just cause discharge cases is preponderance, then one would expect it to be required in at least a majority of the arbitrator's discharge cases. A binomial test indicated that 85.2% is significantly different from 50% at p<.001 and obviously surpasses the 50% hypothetical threshold, as indicated by Wilson's confidence interval (CI_{95}=.833,.869). Hence, the evidence, based on the hypothetical 50% assumption and on our more comprehensive analyses, tends to support Hypothesis 2A.

Next, regardless of the offense alleged, 12.2%, or 174, of the discharge awards required employer proof of just cause by clear and convincing evidence. And, 45.9%, or thirty-four of seventy-four arbitrators, required the clear and convincing standard at least once. Across all arbitrators, however, the average percentage of an arbitrator's respective caseload that required clear and convincing evidence was 11.4% (SD=.21). Conventional wisdom does not indicate what the word "minority" might equate to. For example, is it 10%, 25%, or 49%? If we selected 10% as the assumed "minority" and compared it to our 11.4% observed proportion, a binomial test would suggest that we could not reject the null that the observed and hypothetical proportions are similar (p=.09) to one another. Wilson's confidence interval provided confirmation (CI_{95}=.098,.131). If 25% or 49% was considered to be a "minority," these proportions would be outside the confidence interval

and significantly different than the observed proportion. Accordingly, there is support for Hypothesis 2B.

However, when the employee's alleged offense involved criminal charges or moral turpitude, the conventional wisdom is that "most" arbitrators require the employer to prove just cause by clear and convincing evidence, and "some" require proof beyond a reasonable doubt. 45.3 % or 648, of the sample's awards involved allegations of moral turpitude or criminal charges, with 85.1 %, or sixty-three of seventy-four arbitrators, deciding at least one crime or moral turpitude case. Across all of the arbitrators, the average percentage of crime or moral turpitude cases in their respective discharge portfolios was 49.5% per arbitrator (SD=.31).

Moreover, 15.1%, or ninety-eight of these more serious cases, required clear and convincing proof of just cause. Twenty-six arbitrators handled at least one of these ninety-eight cases (i.e., 41.3% of the sixty-three arbitrators who decided crime/moral turpitude cases or 35.1% of the sample's seventy-four arbitrators). Across arbitrators, the average percentage of an arbitrator's crime/moral turpitude discharge caseload that used the clear and convincing standard was 13.6% (SD=.25). If "most" covers at least 50%, a binomial test would suggest that the observed and hypothetical proportions are significantly different at $p<.001$. Additionally, given Wilson's confidence interval (CI_{95}=.112,.164), the "most" proposition of Hypothesis 2C is not supported.

Regarding the proposition that *some* of these *serious* cases have arbitrators requiring evidence of just cause that is proof beyond a reasonable doubt, we find that this assumption may have credence. 3.9% or twenty-five of the crime/moral turpitude cases, required the employer to provide proof beyond a reasonable doubt, and sixteen arbitrators decided at least one of these twenty-five cases (i.e., 25.4% of the sixty-three arbitrators heard crime/moral turpitude cases or 21.6% of the total arbitrator sample). For those hearing these serious cases, the average percentage of an arbitrator's respective crime/moral turpitude caseload was 5.9% (SD=.13). As previously stated, conventional wisdom is not specific about what "some" should mean. Is it 10%, 25%, or less than half? A binomial test would suggest all three proportions would be significantly different from the sample ($p<.001$). Wilson's confidence interval illustrates that any three of these proposed percentages would be outside the upper-limit of the interval (CI_{95}=.043,.079). Thus, the "some" proposition of Hypothesis 2C finds support.

Additionally, we proposed that employers would find it more difficult to prove just cause if their arbitrators required proof by more stringent standards. In Table 3, Model 3, the *clear and convincing* (β=0.80, $p<.001$) and *beyond a reasonable doubt* (β=0.82, $p<.05$) coefficients are significantly different from that of the comparison group. A Wald-χ^2 test of the coefficients indicated that both standards have similar effects on discharge decisions. Table 4's marginal effects further highlight that an arbitrator denying a grievance decreases in probability by approximately 20% for these more stringent standards, respectively. These results, therefore, provide support for Hypothesis 2D.

TABLE 4. DISCHARGE AWARDS:
MARGINAL EFFECTS FOR MODEL 3'S CONVENTIONAL
WISDOM COEFFICIENTS

	Model 3							
	1 - Denied the grievance		2 - Reinstate w/o back pay		3 - Reinstate w/ partial back pay		4 – Upheld the grievance	
Conventional Wisdom Variables:								
Seven Tests:								
Arbitrator utilized	0.043		-0.010		-0.010		-0.023	
	(0.057)		(0.014)		(0.014)		(0.029)	
Quantum of Proof:								
Preponderance of the evidence standard	-0.098	*	0.015	***	0.023	**	0.061	*
	(0.050)		(0.005)		(0.012)		(0.034)	
Clear and convincing standard	-0.195	***	0.019	***	0.043	***	0.133	***
	(0.044)		(0.004)		(0.009)		(0.037)	
Beyond a reasonable doubt standard	-0.199	**	0.012		0.043	***	0.144	*
	(0.090)		(0.010)		(0.015)		(0.085)	
Last Chance:								
Grievant under last chance agreement	0.223	***	-0.066	***	-0.054	***	-0.103	***
	(0.041)		(0.016)		(0.011)		(0.017)	
Tenure:								
< 1 Year of service	0.071		-0.017		-0.017		-0.037	
	(0.069)		(0.019)		(0.017)		(0.033)	
1-5 Years of service	0.062		-0.014		-0.015		-0.033	
	(0.050)		(0.012)		(0.012)		(0.026)	

TABLE 4. DISCHARGE AWARDS: MARGINAL EFFECTS FOR MODEL 3'S CONVENTIONAL WISDOM COEFFICIENTS (CONTINUED)

5-10 Years of service	-0.022		0.004		0.005		0.013	
	(0.051)		(0.010)		(0.012)		(0.029)	
10-20 Years of service	0.094	*	-0.022	*	-0.023	*	-0.049	**
	(0.049)		(0.013)		(0.012)		(0.025)	
Unknown years of service	-0.014		0.003		0.003		0.008	
	(0.062)		(0.012)		(0.015)		(0.036)	
Probability (Y = Outcome—X)	0.531		0.196		0.107		0.166	

P<.01***, p<.05**, p<.10*; Two-tailed tests

3. Last Chance Agreements

Table 2 shows that 11%, or 162, of the awards involved an employee who was working under the terms of a last chance agreement at the time of discharge. Further, the arbitrator sustained the employer's decision to terminate the grievant's employment in 72.2%, or 117, of these awards. The OLR analysis reveals the robustness of this descriptive relationship. The last chance coefficients in Table 3 are significantly negative at p<.01. This finding, therefore, also supports Hypothesis 3.

Table 4's marginal effect estimates for Model 3 show that the probability that the discharged employee's grievance will be denied is expected to increase by 22.3% when the employee is on a last chance agreement. Correspondingly, the marginal effect estimates show that the probability that the employee will be reinstated without back pay, with partial back pay, or with full back pay is expected to decrease by 6.6%, 5.4%, and 10.3%, respectively.

4. Grievant's Tenure

Table 2 shows that 53% of the grievants in the sample worked fewer than ten years for their employers and that 35% had tenures of more than ten years. Yet, across the three models in Table 3, the tenure categories, as compared to the twenty years or more seniority category, are shown to have no significant effect on arbitrator discharge decisions at p<.05 in the OLR analysis. To ascertain the robustness of these findings, we re-estimated the three models in Table 3 after removing the 162 observations in our dataset for which tenure information was not provided in the arbitrators' decisions. The results were the same as the full sample. Hence, our results do not support Hypothesis 4.

5. Remedies: Jurisdiction and Reduction in Back Pay Reinstatement Decisions

Fifty-five of seventy-four arbitrators (74.3%) in our sample ordered back pay reinstatements at least once in 432 discharge awards (30.2% of 1432 awards). Among these fifty-five arbitrators, thirty (or 54.5%; 40.5% of the seventy-four arbitrators) retained jurisdiction at least once in 26.6% or 115 of 432 cases. Across the arbitrators who ordered back pay reinstatements, the average caseload for which jurisdiction was retained is 22% (SD=.31) per arbitrator. If arbitrators "usually" retain jurisdiction as set forth in this proposition then, hypothetically, they should have retained jurisdiction in at least 50% of the awards. Using a binomial test, the observed 22% is significantly different from the hypothetical 50% proportion at $p<.001$. Wilson's confidence interval provided further support that the observed proportion did not fit the "usually" criteria (CI_{95}=.183, .261). Therefore, Hypothesis 5 is not supported.

Forty-four arbitrators, out of fifty-five, who ordered back pay reinstatements also ordered the back pay to be reduced by interim earnings and/or willful losses at least once in the sample (i.e., 80% of fifty-five arbitrators, or 59.5% of the sample's seventy-four arbitrators). These forty-four arbitrators ordered back pay reduction in 204 of the sample's 432 back pay reinstatement awards (i.e., 47.2%). Across the arbitrators who ordered back pay reinstatements, the average caseload wherein back pay reductions were ordered is 50.5% per arbitrator (SD=.38). As with our jurisdiction analysis, we assumed the referenced "few exceptions" phrase to mean that back pay is reduced in at least 50% of these awards. A binomial test indicated that the null hypothesis could not be rejected that the observed proportion of back pay reduction in the current sample is similar to the hypothetical proportion ($p=0.89$). Wilson's confidence interval supported this conclusion (CI_{95}=.468, .563). However, if the "few exceptions" assumption would surpass the interval's upper-limit, then our sample's observed proportion would not fulfill the criteria. This finding has provided some support to Hypothesis 6. Yet, in the future, if conventional wisdom provides parameters to discern "few exceptions" as greater than 56.3%, then, our data could only provide evidence that the proportion of reinstatement awards with reduced back pay in the sample is not significantly different from a little more than a majority of these awards.

VI. Conclusions

Arbitration's conventional wisdom identifies determinants of arbitrated discharge decisions. Yet, the literature generally has not tested the merits of such beliefs. To partially fill the gap in our understanding of arbitration outcomes in just cause discharge cases, we tested several such generalizations and related inferences. First, while Daugherty's *Seven Tests* are explicated in books, the focus of discussion at arbitration conferences, and a subject generally covered in arbitrator training programs, our research does not support the notion that Daugherty's rubric is "undeniably influential" or enjoys "widespread acceptance" in arbitral just cause decision making. Our findings revealed that only 7.5% of the discharge awards issued per arbitrator explicitly utilized Daugherty's criteria. Further, an arbitrator's use of the *Seven Tests* was not found to decrease the probability of employer success. To better understand why this might be the case, we noticed in our sample that almost three out of five cases using Daugherty's rubric actually had arbitrators upholding employer discharge actions.

Though more information is required, these findings commend the need for a scholarly investigation of Dunsford's hypothesis.[35] According to Dunsford's argument, even though arbitrators may use Daugherty's seven-part rubric, they do not necessarily limit their decisional discretion to strictly adhering to, and, thus, "mechanically" following Daugherty's definition of just cause (i.e., determining the employer's disciplinary action lacked just cause merely because one of Daugherty's seven questions was answered in the negative).[36] Indeed, our *Seven Tests* variable only captured whether the arbitrator expressly drew upon Daugherty's rubric. It did not measure whether a "no" answer to a single Daugherty criterion was determinative of the matter. Nevertheless, only through

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35 Dunsford, *supra* note 13.

36 To illustrate, envision a hypothetical discharge case in which the employer proved by credible evidence that the discharged employee was guilty of a rule infraction (e.g., fighting on the job)—affirming Daugherty question #5—and the union proved that the employer's investigation of the alleged rule infraction was flawed (e.g., the employer's investigator harbored anti-employee *animus*)—negating Daugherty question #4. With this scenario in mind, it seems reasonable to conclude that some arbitrators might adhere to the strict application of Daugherty's common law rule, finding that the employer's discipline action lacked just cause because question #4 was answered in the negative; while other arbitrators might not be willing to limit their decisional discretion by mechanically ruling against the employer. Rather, they might reason that the employee's proven "guilt" of wrongdoing overrides the employer's proven "due process" flaw, and, thus, determine that the discharge in question was for just cause.

future research will we learn the prevalence of Daugherty's prescription or Dunsford's hypothesis.

Second, our analyses provided support for the proposition that discharge decisions without a specific quantum stated and those with "preponderance" explicitly stated have an indistinguishable effect on the issued outcome. This suggests that most arbitrators may view the preponderance standard as the "default" quantum that need not be articulated. Thus, if preponderance is the implied quantum, then preponderance was the standard required in 85.2% of the typical arbitrator's respective caseload—signaling that "most" arbitrators hold employers at least to this standard, as convention would have it. Also, we determined that 11.4% of an arbitrator's respective caseload held employers to the more stringent quantum of clear and convincing evidence, a finding that is consistent with the belief that a "minority" of arbitrators require a more stringent standard. Additionally, aligned with inferences from conventional wisdom and the reflections of Dilts and Deitsch,[37] we found support from our regressions that the use of more stringent quanta—clear and convincing and proof beyond a reasonable doubt— significantly lowered the probability that employers' discharge actions would be upheld by about 20%. Thus, unions generally may experience better outcomes when employers are held to stricter quantum standards.

Conventional wisdom also suggests that "most" arbitrators require the employer to prove its just cause claim by clear and convincing evidence when the employee's alleged offense involved a crime or moral turpitude, and that "some" arbitrators require proof beyond a reasonable doubt in such cases. Our data showed that clear and convincing evidence and proof beyond a reasonable doubt were at times used—respectively, on average, in 13.6% and 5.9% of an arbitrator's respective caseload related to crime and moral turpitude discharges. Therefore, arbitrators likely applied the *default* quantum, preponderance, and did not require a more stringent quantum even in these more serious cases. This is interesting because, in these cases where arbitrators arguably should impose more stringent requirements, they are not doing so and appear to be treating them as "normal" or "routine." Our study is one of the first to investigate quantum issues, but more scholarly work is required to corroborate our initial findings and further explore these questions.

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[37] Dilts & Deitsch, *supra* note 16.

Further, affirming conventional wisdom, we established that arbitrators were far more likely to sustain the employer's discharge action when the grievant was on a last chance agreement. In our data, the base probability that the employer will prevail in discharge arbitration is 53.1%. However, according to our findings, when the grievant is on a last chance agreement, the probability of an employer victory increases by 22.3% to approximately 75%. This evidence suggests that arbitrators tend to recognize that their discretion is limited when the employer presents an enforceable last chance agreement and credibly show that extenuating circumstances do not absolve the employee of the proven offense. In these instances, the union faces an uphill battle in mounting a successful challenge. Nevertheless, our data also revealed that about one-quarter of last chance cases involved union-favorable outcomes. One explanation for this variance is that some arbitrators apply just cause standards even though the discharge arbitration involved a last chance agreement. We also suggest that this is a fruitful area for future study.

Next, our research does not support the conventional wisdom that an employee's on-the-job seniority is a mitigating factor in discharge arbitration determinations. Thus, we were unable to confirm Nelson and Uddin's previous findings that greater employee tenure is predictive of grievant reinstatement.[38] This inter-study difference could be attributed to data differences. In contrast to Nelson and Uddin's work, we utilized a more comprehensive set of independent variables, which included some record of service dimensions (e.g., whether the grievant was under last chance agreements, the type of grievant offense, and whether the grievant's conduct was linked to criminal charges) that the arbitrator may simultaneously evaluate when appraising the effect of a grievant's tenure. Additionally, our ordinal dependent variable provided, perhaps, a richer operationalization compared to their dichotomous variable. Further, our tenure variable was categorical, rather than continuous—the latter could exhibit greater variance that could yield a significant finding.

While our study generally improved upon Nelson and Uddin's "record of service" variables, we were unable to control for other important record of service aspects, such as job performance, or details about previous service blemishes. These exclusions could have biased our tenure coefficient estimations. Further, employers may shy away from discharging long-term employees in anticipa-

[38] Nelson & Uddin, *supra* note 8.

tion of otherwise adverse discharge arbitration awards. If so, our sample omitted these potential discharge awards, and, thus, subjected our tenure coefficient estimations to selectivity bias. However, the large size of our sample is a hedge against this bias. Indeed, at least 35% of the employees in our sample of discharge awards had employment tenures of at least ten years. Ultimately, our discrepant results, as compared to Nelson and Uddin, set up a debate over tenure's effects on discharge outcomes. More research on the effects of grievant tenure is imperative to discern which side of the debate has more consistent evidence. If possible, such models should include further details on a grievant's record of service to ensure more accurate estimates.

Finally, we studied two hypotheses from conventional wisdom that address the substantive content of an arbitrator's discharge "remedy." The general belief is that, when a discharged employee is reinstated with back pay, arbitrators, "with few exceptions," will articulate in the award whether and by how much the amount of back pay due to the employee is to be reduced. Additionally, it is generally thought that in these cases arbitrators will "usually" retain jurisdiction over the case to be in a position to resolve post-award issues that may arise over the amount of back pay to which the grievant is entitled.

Regarding reductions from back pay awards, our data were similar to a hypothesized proportion of at least one-half having one's back pay reduced. Nevertheless, the phrase "with few exceptions" that appears in the quotation taken from St. Antoine may not be consistent with our assumption.[39] Our analysis of this aspect of the conventional wisdom invites further study.

However, contradicting conventional wisdom, our results illustrated that when arbitrators direct the parties to determine the amount of back pay that a reinstated grievant is due they do not *usually* retain jurisdiction. This finding has significant workplace implications. With retained jurisdiction, the arbitrator—relative to alternative dispute resolution strategies, such as arbitration *de novo* or civil litigation—can quickly and economically remedy any post-award back pay dispute, and in doing so, promote a positive labor relations climate. Future studies need to explore whether our finding holds across other data sets, and, if so, to examine why larger numbers of arbitrators are not retaining jurisdictions.

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[39] ST. ANTOINE, *supra* note 14.

In conclusion, our empirical results derive from an unusually large and uniquely comprehensive dataset. Yet, its geographic scope is limited to Minnesota, which calls into question the degree to which it is representative of the nation's array of discharge awards and the arbitrators who issued them. However, our ability to make judgments about representativeness is limited by the paucity of national baseline data. A complete assessment of conventional wisdom in labor arbitration requires future inquiries using different datasets, variable measures, and research designs. However, at this juncture, we conclude from the present study's examination of orthodox ideas influencing arbitral decision making in just cause discharge cases and remedies demonstrates that conventional wisdom is likely part fact and part fiction. Our research findings are provisional, at best. Given that the current study is an introductory empirical study of its kind, additional research is needed to confirm or reject our findings.