

DRUG TESTING OF MEDICAL MARIJUANA
USERS IN THE WORKPLACE:
AN INACCURATE TEST OF IMPAIRMENT

*Stacy A. Hickox*¹

INTRODUCTION

Medical marijuana users in the workplace and their employers are facing a dilemma.² Sixteen states now prohibit prosecution of users of medical marijuana.³ Yet these users still face rejection of their applications or even discharge in the workplace. Joseph Casias knows this all too well—he was discharged by Wal-Mart based on a positive drug test, even though he was registered by the State of Michigan as a medical marijuana user and never showed signs of impairment at work.⁴ The treatment of Mr. Casias and other employees like him illustrates how adverse actions against any controlled-substance user often result from employers' over-reliance on drug tests, without sufficient attention to the person's actual impairment at work.

Most employers are concerned about the effects of the use of marijuana and other illegal drugs on employees' performance. But as

1. Assistant Professor, Michigan State University, School of Human Resources & Labor Relations. J.D. University of Pennsylvania. Special thanks to Ashley Morris for her research and editing work.

2. See James M. Shore, *Medical marijuana and Zero Tolerance Drug Testing Policies*, EMP. BENEFIT PLAN REV., May 2011, at 6 (stating that employers and courts continue to struggle between enforcing "zero tolerance" drug testing policies and accommodating employee's use of medical marijuana).

3. COLO. CONST. art. XVIII, § 14; ALASKA STAT. § 17.37.030 (2010); ARIZ. REV. STAT. ANN. § 36-2811 (2011); CAL. HEALTH & SAFETY CODE § 11362.5 (West 2011); DEL. CODE ANN. tit. 16 § 4903A (2011); HAW. REV. STAT. §§ 329-122, 329-125 (2011); ME. REV. STAT. ANN. tit. 22, § 2383-B, 2426(2010) (2011); MICH. COMP. LAWS ANN. § 333.26424 (West 2011); MONT. CODE ANN. § 50-46-319 (2011); NEV. REV. STAT. ANN. § 453A.200, (West Supp. 2011); N.J. STAT. ANN. § 2C:35-18 (West 2011); N.M. STAT. ANN. § 26-2B-4 (West 2011); OR. REV. STAT. § 475.319 (2011); R.I. GEN. LAWS § 21-28.6-4 (Supp. 2011); VT. STAT. ANN. tit. 18, § 4474b (West 2011); WASH. REV. CODE ANN. § 69.51A.040 (West 2011).

4. *Casias v. Wal-Mart Stores, Inc.*, 764 F. Supp. 2d 914, 916 (W.D. Mich. 2011).

Mr. Casias learned, a positive drug test can result in adverse consequences even if the employee is not under the influence or intoxicated by marijuana at work.⁵ Marijuana use in particular can trigger a positive drug test for several weeks after actual use.⁶ At the same time, medical marijuana users may be capable of performing their work despite or even because of their use of marijuana during off-duty time. This paper proposes a solution for this dilemma: employers should rely on evidence of actual impairment of the applicant or employee rather than a drug screen. With individualized assessment of impairment, employers can still promote safety and productivity in the workplace, while giving medical marijuana users an opportunity to continue working productively.

The discharge or rejection of medical marijuana users by employers illustrates the lack of a relationship between the drug testing used by so many employers and actual impairment on the job. Despite the inability of a drug test to demonstrate impairment, employers are often advised to maintain a zero tolerance policy despite the passage of statutes designed to allow marijuana use for medical purposes. One employment attorney has advised employers in medical marijuana states that their zero tolerance policies should “prohibit any detectable amount of illegal drugs in an applicant’s or employee’s system as opposed to using an ‘under the influence’ standard.”⁷ Another employer representative advises: “When an employee comes to you with a medical marijuana card, you tell him that you have a zero-tolerance policy, that you will enforce it and that the result will be termination.”⁸ In line with this type of advice, some employers even terminate an employee when a drug test turns up a legally prescribed drug used for pain relief.⁹

Other advisors of employers are taking a less absolute approach, recommending that employers focus on an impaired ability to perform the job requirements.¹⁰ Similarly, another expert has advised that

5. *See id.*

6. *See Basic Facts About Drugs: Marijuana*, AM. COUNSEL FOR DRUG EDUC., <http://www.acde.org/health/Research.htm> (last visited Mar. 25, 2012) (follow the “Marijuana” hyperlink) (highlighting that traces of THC can be picked up by sensitive blood tests up to four weeks after taking in marijuana).

7. Shore, *supra* note 2, at 7.

8. Diane Cadrain, *The Marijuana Exception*, HR MAG., Nov. 2010, at 41-42.

9. Stephen P. Prentice, *Drug Testing 2011 Now to Include Prescription Drugs in the Workplace?* AIRCRAFT MAINTENANCE TECH., Mar. 2011, at 48-49.

10. Beth Potter, *Weed in the Workplace Causes Concern*, N. COLO. BUS. REP. (Nov. 19, 2010), <http://www.ncbr.com/article/20101119/INDUSTRY07/54700> (“‘It’s a matter of people not being impaired in the workplace,’ Bierbaum said. ‘If it impairs your ability to perform your duties, then the fact that you have a legal prescription doesn’t change the job requirements.’”).

“[c]ompany policy should include a clear statement that working in an impaired state, whether drugs are legal or illegal, will not be tolerated, and the consequences should also be clearly listed.”¹¹ This disagreement, even among legal advisors for employers, demonstrates the need for a more structured approach toward employees who are legally using a substance for their health that may have no negative effects on their performance.

Part I of this article provides an overview of the sixteen existing medical marijuana statutes as well as the numerous bills pending across the United States. Most medical marijuana statutes do not provide direct protection against discrimination in hiring or discharge from employment. Yet most of these statutes do specify that an employer need not accommodate a medical marijuana user who uses at work or is intoxicated at work. This raises two important questions. First, does an employer have an obligation to accommodate a medical marijuana user who only uses outside of work, particularly if the person is protected against discrimination based on a disability? Employers have argued that the term “use” at work could include testing positive on a drug screen,¹² even though an employee can test positive days or weeks after the ingestion of marijuana.¹³ Yet the duty to accommodate could also mean that a medical marijuana user who does not ingest marijuana at work, and is not intoxicated or under the influence at work, should be entitled to accommodation like any other person with a disability.

The second difficult question raised by these provisions is how to determine if a medical marijuana user is intoxicated or under the influence at work. In Part II of this article, the research on the effects of marijuana use will be reviewed. Although the research points out qualities associated with marijuana use that may also affect job performance, these effects vary considerably across users depending on the frequency and level of use as well as the personal characteristics of the user. Moreover, this research does not provide clear guidance for employers or courts regarding when a medical marijuana user should be protected against discharge based on intoxication or impairment at

11. Catherine McGuire, *Legal Drugs and Safety in the Workplace*, Safety Compliance Letter, Oct. 2010, at 10.

12. *See Johnson v. Columbia Falls Aluminum Co.*, No. DA 08-0358, 2009 WL 865308, at *1 (Mont. Mar. 31, 2009) (discussing the defendant-employer’s drug testing and alcohol policy which provided that an employee would be subject to discipline, including termination, for testing positive for marijuana even where medical marijuana was allowed by statute).

13. *See Basic Drug Facts: Marijuana*, *supra* note 6.

work.¹⁴

Part III of this article considers whether drug testing should be used to determine when an employee or applicant is intoxicated or impaired. There are several reasons it should not, beginning with the lack of relationship between a positive drug test and actual impairment. In addition, many states lack requirements as to how drug tests should be administered, which allows for inaccurate and inappropriately interpreted results. As an alternative, impairment testing can give clearer indication of whether an employee is actually fit to work.

Parts IV and V of this article demonstrate how a standard for determining intoxication or impairment can be developed from both criminal law and workers' compensation law. These long-standing methods should assist both employers and courts in addressing the dilemma of what to do with a medical marijuana user who has not engaged in illegal activity, but faces discharge or rejection in the application process, even though he or she has never been under the influence of marijuana at a time when work would be affected.

Both employers and courts can look to guidance from criminal law and state workers' compensation programs to determine when a medical marijuana user should be protected against an adverse action. Employers should apply the principles from workers' compensation programs that typically exclude claims by employees who are intoxicated at the time of an injury at work. The case law interpreting these statutes provides a wealth of information on how employers can and should determine if a medical marijuana user should be accommodated, even if they test positive on a drug test. These statutes provide guidance on the reliability and meaning of drug test results in determining whether an employee was intoxicated. In addition, the opportunity for an employee to refute the presumption of intoxication demonstrates the importance of looking beyond drug test results and to the employee's actual behavior.

Both criminal and workers' compensation standards strongly suggest that a positive drug test alone is insufficient to establish that an employee is intoxicated or impaired.¹⁵ Most states will allow an employer to rely on a drug test result to establish a presumption of intoxication or impairment.¹⁶ But even if he or she tests positive, the

14. See *infra* notes 167-87 and accompanying text for a discussion of the limitations of drug tests as indicators of impairment.

15. See *infra* Parts IV, IV.B.

16. See *infra* p. 324.

defendant or employee is provided with an opportunity to present evidence that despite the positive test result, other evidence establishes that he or she was not under the influence of a controlled substance while operating a vehicle or at the time of the injury. This paper will explore state courts' interpretation of test results and the evidence that can be used by employees to establish their sobriety.

Employers are well advised to focus on concrete indications of a medical marijuana user's intoxication at work rather than making significant employment decisions based on a positive drug test result alone. Employers are concerned about safety and preventing destruction of property. These goals are best achieved by focusing on employees' actual impairment at work. First, focusing on impairment will promote these goals among all employees, not just medical marijuana users, including those on prescription drugs or suffering from fatigue. Second, focusing on impairment will encourage employees to reveal use of medical marijuana or other factors that might affect their performance, rather than encouraging secrecy. Once an employee reveals this information, an employer can monitor them for indications of impairment, or consider accommodations that would allow them to continue working while still recognizing the employer's interests in safety and performance. Lastly, focusing on impairment fulfills the goals of disability discrimination statutes: to protect applicants and employees with a disability who can perform successfully with reasonable accommodations by the employer.

I. INTOXICATION & MEDICAL MARIJUANA

The definition of "intoxication" or "under the influence" plays an important role in the level of protections provided for medical marijuana users in the workplace. In three states that bar the prosecution of medical marijuana users, employers need not accommodate employees who are intoxicated or "under the influence" at work.¹⁷ Similarly, the Vermont statute provides no protection against "prosecution for being under the influence of marijuana while . . . in a workplace or place of employment" or "smoking . . . marijuana in . . . a workplace or placement of employment."¹⁸

Several medical marijuana statutes do not protect medical

17. ARIZ. REV. STAT. ANN. § 36-2814(A)(3)(Supp. 2011); DEL. CODE ANN. tit. 16, § 4907A(a)(3) (West 2011); MICH. COMP. LAWS ANN. § 333.26427(c)(2) (West 2011).

18. VT. STAT. ANN. tit. 18, § 4474c(a) (West 2011).

marijuana users from prosecution for the operation of a motor vehicle while under the influence of marijuana.¹⁹ This means that employees whose work responsibilities include driving would not be qualified to work if they are under the influence at work. As demonstrated by these provisions of the various medical marijuana statutes, both employers and medical marijuana users need an understanding of what it means to be intoxicated or under the influence of marijuana.

Only the Arizona and Delaware statutes provide any insight into the meaning of the intoxication/impairment exclusion. In detailing employer protection from litigation, Arizona notes that a decrease or lessening of an employee's job performance abilities could be considered an impairment under the law.²⁰ It has been noted that this definition "provides relatively little practical guidance for employers facing difficult decisions concerning the employment of medical marijuana users."²¹ Arizona's act also specifies that a medical marijuana user "shall not be considered to be under the influence of marijuana solely because of the presence of metabolites or components of marijuana that appear in insufficient concentration to cause impairment."²² Arizona also allows employers to prevent employees from working in "safety-sensitive positions" based on a "good faith belief that the employee is engaged in the current use of any drug . . . [that] could cause an impairment or otherwise decrease or lessen" his or her ability to perform job duties.²³

Delaware's medical marijuana statute similarly states that "a registered qualifying patient shall not be considered to be under the influence of marijuana solely because of the presence of metabolites or components of marijuana" that appear in insufficient concentration to cause impairment.²⁴ Delaware specifically prohibits discrimination against medical marijuana-using employees, but provides an exception if the employee was "ingesting marijuana in the workplace or working while under the influence of marijuana."²⁵

19. See, e.g., ME. REV. STAT. ANN. § 2426(1)(D) (Supp. 2011); MICH. COMP. LAWS ANN. § 333.26427(b)(4) (West Supp. 2011); R.I. GEN. LAWS § 21-28.6-7(a)(3) (West Supp. 2011); VT. STAT. ANN. tit. 18, § 4474c(a)(1)(A) (West 2011); WASH. REV. CODE. ANN. § 69.51A.060(6) (West 2011).

20. See ARIZ. REV. STAT. ANN. § 23-493.06(A)(7) (Supp. 2011).

21. Michael D. Moberly & Charitie L. Hartsig, *Smoke – and Mirrors?: Employers and the Arizona Medical Marijuana Act*, ARIZ. ATT'Y, July-Aug. 2011, at 30, 30.

22. ARIZ. REV. STAT. ANN. § 36-2814(A)(3) (Supp. 2011).

23. ARIZ. REV. STAT. ANN. § 23-493.06(A)(7) (Supp. 2011).

24. DEL. CODE. ANN. tit. 16, § 4907A(a)(3) (West 2011).

25. *Id.*

Eight of the medical marijuana statutes do not link accommodation to an employee being “under the influence,” but instead state that an employer is not required to accommodate use of marijuana “in the workplace.”²⁶ Employers have argued that if an employee tests positive on a drug test for marijuana at work, then he or she has “used” marijuana in the workplace.²⁷ As will become clear in the discussion of drug testing, this broad definition is problematic in that an employee can test positive on a drug test based on metabolites in his or her system that have no effect on performance.²⁸

As of 2012, twelve states have recently introduced legislation to legalize medical use of marijuana.²⁹ Some of these pending bills include protections for marijuana-using employees.³⁰ Many also contain statements that employers are not required to accommodate any employee working while under the influence of marijuana.³¹ The bill introduced in Ohio provides some insight as to the meaning of “under the influence” or “impaired,” making it clear that a user should not be considered to be under the influence based on the presence of metabolites alone.³² These medical marijuana statutes and bills raise questions for employers about the need to accommodate medical marijuana users.

A. Judicial Interpretation of Medical Marijuana Statutes

Several medical marijuana users have unsuccessfully asserted protections in the workplace under their states’ medical marijuana

26. See COLO. CONST. art. XVIII, § 14(10)(b); ALASKA STAT. § 17.37.040(d)(1) (2010); ME. REV. STAT. ANN. tit. 22, § 2426(2)(B) (Supp. 2011); MICH. COMP. LAWS ANN. § 333.26427(c)(2) (West Supp. 2011); NEV. REV. STAT. ANN. § 453A.800(2) (West Supp. 2011); OR. REV. STAT. ANN. § 475.340(2) (West 2007); R.I. GEN. LAWS § 21-28.6-7(b)(2) (Supp. 2011); WASH. REV. CODE ANN. § 69.51A.060(4) (West 2007).

27. See, e.g., *Washburn v. Columbia Forest Products, Inc.*, 104 P.3d 609, 613-14 (Or. Ct. App. 2005), *rev'd on other grounds*, 134 P.3d 161 (Or. 2006) (court rejected employer argument that use in workplace included positive drug test, under MMA’s definition of “medical use of marijuana” as the “production, possession, delivery, or administration of marijuana, or paraphernalia used to administer marijuana.”).

28. See *infra* text accompanying notes 144-61 (discussing the limitations of drug tests as indicators of impairment).

29. *12 States with Pending Legislation to Legalize Medical Marijuana*, PROCON.ORG, <http://medicalmarijuana.procon.org/view.resource.php?resourceID=002481> (last updated May 7, 2012) (providing links and summaries to pending bills).

30. *Id.*

31. See, e.g., H.B. 25, 2012 Leg., Reg. Sess. (Ala. 2012); H.B. 0030, 2011 Leg., Reg. Sess. (Ill. 2011); H.B. 214, 129th Gen. Assemb., Reg. Sess. (Ohio 2011).

32. H.B. 214, 129th Gen. Assemb., Reg. Sess. (Ohio 2011).

statutes. A Michigan federal trial court held that Wal-Mart could discharge an employee who tested positive on a drug screen because Michigan's medical marijuana statute was not intended to prevent the discharge of employees who use medical marijuana.³³ Courts in four other states with medical marijuana statutes have also failed to extend their protections to medical marijuana-using employees or applicants.³⁴ For example, Montana's Supreme Court held that its medical marijuana statute did not protect a medical marijuana-using employee against discharge based on a positive drug test, under the statute's language that an employer need not "accommodate the medical use of marijuana in any workplace."³⁵ Yet none of these courts considered whether the medical marijuana users were still qualified to perform their work, either with or without an accommodation, and therefore the courts did not determine whether the employee's intoxication or impairment justified their treatment in the workplace.³⁶ Instead, these courts denied protection regardless of whether the employee or applicant was affected at work by their marijuana use.³⁷

After the recent decision by the Washington Supreme Court that denied protection for a medical marijuana user in the workplace,³⁸ one commentator opined that employers there "should feel free to consistently apply zero-tolerance policies" and concluded that employers "can consistently discipline those who violate the policy and refuse to hire those applicants who fail drug screens, regardless of medical marijuana registry status."³⁹ Yet one editorial stated that "[i]f she didn't pose a danger to herself or others, and use of the medication didn't

33. See *Casias v. Wal-Mart Stores, Inc.*, 764 F. Supp. 2d 914, 925-26 (W.D. Mich. 2011).

34. See, e.g., *Ross v. Ragingwire Telecomms., Inc.*, 174 P.3d 200, 204, 206-07 (Cal. 2008) (holding that California's Compassionate Use Act does not require employers to accommodate marijuana use); *Emerald Steel Fabricators, Inc. v. Bureau of Labor & Indus.*, 230 P.3d 518, 535 (Or. 2010) (en banc) (holding that the protections of the Oregon medical marijuana statute did not apply to an employee who took marijuana without the supervision of a licensed health care professional); *Roe v. Teletech Customer Care Mgmt., LLC*, 257 P.3d 586, 592, 597 (Wash. 2011) (en banc) (holding that Washington's Medical Use of Marijuana Act "does not prohibit an employer from discharging an employee for marijuana use").

35. *Johnson v. Columbia Falls Aluminum Co.*, No. DA 08-0358, 2009 WL 865308, at *2 (Mont. Mar. 31, 2009) (citing MONT. CODE ANN. § 50-46-205(2)(b) (repealed 2004)).

36. See *Ross*, 174 P.3d at 203, 209; *Johnson*, 2009 WL 865308 at *1; *Emerald Steel Fabricators*, 230 P.3d at 520; *Roe*, 257 P.3d at 593.

37. See *Ross*, 174 P.3d at 206-07; *Johnson*, 2009 WL 865308 at *2; *Emerald Steel Fabricators*, 230 P.3d at 524; *Roe*, 257 P.3d at 597.

38. *Roe*, 257 P.3d at 597.

39. Rich Meneghello, *Northwest Employers Win Another Medical Marijuana Battle*, DAILY J. COM. (June 30, 2011, 8:58 AM), <http://djcoregon.com/news/2011/06/30/northwest-employers-win-another-medical-marijuana-battle/>.

impair her ability to do her job, her employer should have made an effort to make this situation work.”⁴⁰ These comments highlight the tension inherent in medical marijuana statutes that prohibit prosecution for use, but do not explicitly protect employees against adverse action based on a positive drug test.

B. Duty to Accommodate

Many medical marijuana users qualify as a person with a disability or a debilitating condition under state protections against discrimination.⁴¹ States’ protections against discrimination based on disability also provide for a right to reasonable accommodation.⁴² This right to accommodation for employees with disabilities must be reconciled with these states’ medical marijuana statutes, which indicate that employers need not accommodate the use of marijuana in the workplace or medical marijuana users who are intoxicated in the workplace.⁴³

Given the overall right to accommodations for employees and applicants with disabilities, the specific statement in these statutes and bills that an employer need not accommodate medical marijuana users

40. *High Court Ruling on Medical Pot Won't Provide Enough Answers*, WALLA WALLA UNION-BULL. (Mar. 1, 2011), <http://union-bulletin.com/stories/2011/03/01/high-court-ruling-on-medical-pot-won-t-provide-enough-answers>.

41. *See, e.g., Ross*, 174 P.3d at 203; *Emerald Steel Fabricators*, 230 P.3d at 520; *Roe*, 257 P.3d at 589; Ari Lieberman & Aaron Solomon, Note, *A Cruel Choice: Patients Forced to Decide Between Medical Marijuana and Employment*, 26 HOFSTRA LAB. & EMP. L.J. 619, 631 (2009).

42. *See, e.g., ARIZ. REV. STAT. ANN. § 41-1463(E)* (2011) (making it unlawful to deny employment opportunities to a job applicant or employee who is an otherwise qualified individual if the denial is based on the need of the covered entity to make reasonable accommodation to the physical or mental impairment of the applicant or employee); *COLO. REV. STAT. § 24-34-402(1)(a)* (2008); *MICH. COMP. LAWS ANN. § 37.1210(1)* (West 2002) (providing a duty to accommodate unless accommodation causes undue hardship); *OR. REV. STAT. ANN. § 659A.112(2)(e)* (2007) (saying that it is discriminatory for employer to deny employment if denial is based on the need of the employer to make reasonable accommodation to the physical or mental impairments of the employee or applicant); *R.I. GEN. LAWS § 28-5-7(1)(iv)* (2004) (making it discriminatory to refuse to reasonably accommodate an employee’s or prospective employee’s disability unless the employer can demonstrate that the accommodation would pose a hardship on the employer’s program, enterprise, or business); *VT. STAT. ANN. tit 21, § 495d* (West 2007) (stating that a “qualified individual with a disability” includes individual with a disability who is capable of performing essential functions of for which individual is being considered with reasonable accommodation to the disability).

43. *See, e.g., COLO. CONST. art. XVIII, § 14(10)(b)*; *ALASKA STAT. § 17.37.040(d)(1)* (2010); *ME. REV. STAT. ANN. tit. 22, § 2426(2)(B)* (Supp. 2011); *MICH. COMP. LAWS ANN. § 333.26427(c)(2)* (West Supp. 2011); *NEV. REV. STAT. ANN. § 453A.800(2)* (West Supp. 2011); *OR. REV. STAT. ANN. § 475.340(2)* (West 2007); *R.I. GEN. LAWS § 21-28.6-7(b)(2)* (Supp. 2011); *WASH. REV. CODE ANN. § 69.51A.060(4)* (West 2007).

under some circumstances suggests that their obligation to accommodate a medical marijuana user continues when that user is not intoxicated or under the influence at work. A medical marijuana user could argue that because a state's nondiscrimination law mandates a general rule that an employer must accommodate an employee's disability, a statement in a medical marijuana statute that an employer need not accommodate an employee's medical marijuana use at the jobsite does not excuse an employer from accommodating medical marijuana use outside of work.

Even if a general duty to accommodate medical marijuana users arises from state disability nondiscrimination statutes, an employer may assert that marijuana use outside of the workplace can affect the user's performance at work. Employers may be particularly concerned about the safety of the user and others. Disability nondiscrimination statutes recognize this concern.⁴⁴ Four states with medical marijuana statutes, Arizona, California, Maine, and Vermont, exclude from nondiscrimination protection those employees who pose a direct threat from their disability.⁴⁵ For example, Arizona defines "direct threat" as a "significant risk to the health or safety of others that cannot be eliminated by reasonable accommodation."⁴⁶ Likewise, Vermont's exclusion is limited to employees whose current alcohol or drug abuse would "constitute a direct threat to property or the safety of others."⁴⁷

Similarly, three states' disability nondiscrimination protections do not extend to an employee who, because of his or her physical or mental disability, is unable to perform his or her job duties in a manner that would not endanger his or her health or safety or the health or safety of others even with reasonable accommodations.⁴⁸ The California Supreme Court determined that a medical marijuana user was not qualified for his position based on his marijuana use, but this decision was not based on his impairment at work.⁴⁹ Instead, the employer was not required to accommodate his employee's use of marijuana based on its illegality

44. See ARIZ. REV. STAT. ANN. § 41-1463(M) (2011); CAL. GOV'T CODE § 12940(a)(2) (West 2011); ME. REV. STAT. ANN. tit. 5, § 4573-A(1-B) (West 2002); VT. STAT. ANN. tit. 21, § 495d(6)(B) (West 2007).

45. ARIZ. REV. STAT. ANN. § 41-1463(M) (2011); CAL. GOV'T CODE § 12940(a)(2) (West 2011); ME. REV. STAT. ANN. tit. 5, § 4573-A(1-B) (West 2002); VT. STAT. ANN. tit. 21, § 495d(6)(B) (West 2007).

46. ARIZ. REV. STAT. ANN. § 41-1463(M) (2011).

47. VT. STAT. ANN. tit. 21, § 495d(6)(B) (West 2007).

48. CAL. GOV'T CODE § 12940(a)(2) (West 2011); ME. REV. STAT. ANN. tit. 5, § 4573-A(1-B) (West 2002); VT. STAT. ANN. tit. 21 § 495d(6)(A)-(B) (West 2007).

49. See *Ross v. Ragingwire Telecomms., Inc.*, 174 P.3d 200, 209 (Cal. 2008) (Kennard, J., concurring and dissenting).

under federal law, since California's nondiscrimination law for persons with disabilities specifically excludes current users of illegal substances as defined by federal law.⁵⁰

Courts in Oregon and Rhode Island would likely rule similarly to the California Supreme Court's reasoning because their disability nondiscrimination statutes exclude current drug use, which is illegal under federal law.⁵¹ Yet disability discrimination statutes in some other states with medical marijuana statutes do not specifically exclude users of drugs that are illegal under federal law.⁵²

The duty of accommodation and the direct threat defense raise the question of when a medical marijuana user should be protected against discipline or discharge based on his or her marijuana use. More specifically, employers need clarity on whether or not a medical marijuana user is intoxicated or under the influence of marijuana. Research on the physical and cognitive effects of marijuana use provides some guidance about the general effects of marijuana, but gives much less guidance regarding its effects on workers. Likewise, drug test results tell an employer little about capacity to work.⁵³

Much greater clarity comes from a review of case law interpreting criminal liability statutes and the intoxication exclusion in state workers' compensation programs. Using this type of analysis to focus on individual behavior, employers should be able to determine whether medical marijuana users can work in a particular position. At the same time, medical marijuana users who are already protected against prosecution for using marijuana would also enjoy some additional protection in the workplace.

II. EFFECTS OF MARIJUANA USE ON EMPLOYEES

Research on the effects of illegal drug use tends to focus on specific symptoms and effects on the user's body, rather than the effect of those symptoms in a particular situation.⁵⁴ This section will review the scientific research regarding the effects of marijuana on cognitive

50. *Id.* at 205, 207.

51. OR. REV. STAT. ANN. § 659A.124(1) (West Supp. 2011); R.I. GEN. LAWS § 42-87-1(6)(v)(A) (Supp. 2011).

52. *See, e.g.*, ARIZ. REV. STAT. ANN. § 41-1461(4) (2011).

53. *See infra* notes 86-90 and accompanying text.

54. *See, e.g.*, *Topics in Brief: Marijuana*, NAT'L INST. ON DRUG ABUSE (Dec. 2011), <http://www.nida.nih.gov/tib/marijuana.html> [hereinafter NAT'L INST. ON DRUG ABUSE] (discussing the physical effects of marijuana on the body).

processes and more specifically the extent to which marijuana use affects the user's ability to work. Understanding the limitations of this research is important to appreciating the limitations of employers' reliance on drug test results to determine whether an employee is intoxicated or under the influence at work. This research also provides some insight into when an employee may pose a direct threat to themselves or others, or when they may not be otherwise qualified for the position.

Generally, the Diagnostic and Statistical Manual of Mental Disorders IV (DSM-IV) defines cannabis intoxication resulting from marijuana use as including "[c]linically significant maladaptive behavioral or psychological changes (e.g., impaired motor coordination, euphoria, anxiety, sensation of slowed time, impaired judgment, social withdrawal) that developed during, or shortly after, cannabis use."⁵⁵ A diagnosis of cannabis intoxication depends on two (or more) of the following signs:

- (1)conjunctival injection
- (2)increased appetite
- (3)dry mouth
- (4)tachycardia⁵⁶

The National Institute on Drug Abuse explains that tetrahydrocannabinol (THC), the main psychoactive ingredient in marijuana, binds to cannabinoid (CB) receptors, which are found in high concentrations in areas that influence pleasure, memory, thought, concentration, sensory and time perception, appetite, pain, and movement coordination.⁵⁷ For this reason, marijuana can have wide ranging effects, including:

Impaired short-term memory (memory of recent events)—making it hard to learn and retain information, particularly complex tasks

Slowed reaction time and impaired motor coordination—throwing off

55. AM. PSYCHIATRIC ASS'N, DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS 238 (4th ed. 2000) [hereinafter DSM-IV].

56. *Id.*

57. NAT'L INST. ON DRUG ABUSE, *supra* note 54.

athletic performance, impairing driving skills, and increasing the risk of injuries

Altered judgment and decision making . . . []

Increased heart rate by 20-100% . . . []

Altered mood—euphoria, calmness, or in high doses, anxiety, paranoia⁵⁸

Some researchers have documented effects of marijuana that could contribute to a decline in cognitive function. A Toronto study, for example, concluded that regular cannabis users performed significantly poorer than nonusers on measures of information processing speed, working memory, executive functions, and visuospatial perception, and were twice as likely as nonusers to be classified as globally cognitively impaired.⁵⁹ Along the same lines, another study found that cannabis users had comparative deficits on verbal fluency, visual recognition, delayed visual recall, and short- and long-interval prospective memory, but there were no differences for immediate visual recall, suggesting that “memory acquisition is not compromised.”⁶⁰

In contrast to these studies, other research suggests that the effects of marijuana use on cognitive function are not significant. A review of forty articles led one expert to conclude that there was no consistent evidence for “persisting effects of nonacute cannabis use on the central nervous system, as reflected by alteration in neuropsychological performance.”⁶¹ Only twenty-two of the forty reviewed studies reported at least some subtle impairment.⁶² Poorer performance in the attention/working memory domain was the most commonly observed impairment, while a significant deficit in the motor domain or the forgetting domain were seen in less than 40% of the studies.⁶³ Further, “[l]ess than one-third of studies concluded a detrimental effect of cannabis when assessing the perceptual/motor (28%),

58. *Id.*

59. Kimia Honarmand et al., *Effects of Cannabis on Cognitive Function in Patients with Multiple Sclerosis*, 76 *NEUROLOGY* 1153, 1156 (2011).

60. Sue McHale & Nigel Hunt, *Executive Function Deficits in Short-Term Abstinent Cannabis Users*, 23 *HUM. PSYCHOPHARMACOLOGY* 409, 413 (2008).

61. Raul Gonzalez et al., *Nonacute (Residual) Neuropsychological Effects of Cannabis Use: A Qualitative Analysis and Systematic Review*, 42 *J. CLINICAL PHARMACOLOGY* 48S, 48S (2002).

62. *Id.*

63. *See id.* at 50S.

abstraction/executive (27%), simple reaction time (27%), learning (7%), and verbal (7%) domains.”⁶⁴

Researchers have concluded that the effects of marijuana use on cognitive functions are inconsistent and depend on numerous factors.⁶⁵ As early as 1971, a study found that age, education, experience with the drug, gender and mood, as well as user expectations, all impacted the effects of marijuana use.⁶⁶ Another more recent study suggests that the effects of marijuana on cognitive performance vary based on the manner in which the marijuana is smoked.⁶⁷

Dosage is one important factor affecting the cognitive effects of marijuana.⁶⁸ Memory and learning problems caused by heavy marijuana smoking persist for at least a week after cessation of use of the drug, but they appear to resolve completely within a month, a NIDA-supported study shows.⁶⁹ These researchers found a clear relationship between lower test scores and higher levels of marijuana residues in urine at the beginning of the study, but no relationship between test scores and total lifetime marijuana use.⁷⁰ It has also been noted that decreases in productivity or performance levels are directly correlated with the quantity of marijuana consumed, as well as the complexity of the task.⁷¹

Frequency of use may also be significant.⁷² The cognitive effects of marijuana may be more significant among infrequent marijuana users compared to frequent users, perhaps due to increases in tolerance.⁷³ In contrast, another psychiatric study found that “regular cannabis users [were] significantly more prone to cognitive and perceptual distortions

64. *Id.*

65. *See supra* text accompanying notes 63-66.

66. MARIJUANA AND THE WORKPLACE 6-7 (Charles R. Schwenk & Susan L. Rhodes eds., 1999) [hereinafter MARIJUANA AND THE WORKPLACE].

67. *Id.* at 18.

68. *See generally* Harrison G. Pope, Jr. et al., *Neuropsychological Performance in Long-Term Cannabis Users*, 58 ARCHIVES GEN. PSYCHIATRY 909, 915 (2001) [hereinafter Pope, *Neuropsychological Performance*] (noting that evidence shows that heavy marijuana users experience some cognitive deficits days or even weeks after stopping use); Harrison G. Pope, Jr. & Deborah Yurgelun-Todd, *The Residual Cognitive Effects of Heavy Marijuana Use in College Students*, 275 J. AM. MED. ASS'N 521, 526-27 (1996) [hereinafter Pope, *The Residual Cognitive Effects*] (presenting differences in cognitive effects among light and heavy users).

69. Pope, *Neuropsychological Performance*, *supra* note 68, at 909, 914.

70. *Id.*

71. John H. Kagel, Raymond C. Battalio, & C.G. Miles, *Marihuana and Work Performance: Results from an Experiment*, in MARIJUANA AND THE WORKPLACE, *supra* note 66, at 25, 39.

72. *See* CARL L. HART & CHARLES KSIR, DRUGS, SOCIETY & HUMAN BEHAVIOR 367 (14th ed. 2011) (stating that the acute effects of marijuana on the performance of frequent smokers are less dramatic than on infrequent marijuana smokers).

73. *Id.*

as well as disorganization . . . [compared to] non-regular users and those who have never used.”⁷⁴ An earlier study showed that heavy users (smoking an average of ninety-four joints a week) scored worse than light users (averaging eleven joints per week) on twenty-four of the thirty-five neurocognitive tests, even after twenty-eight days of abstinence.⁷⁵ The measures on which heavy users had comparative deficits included memory, executive functioning, and manual dexterity.⁷⁶ On some tests, the quantity of marijuana used accounted for more than half the variance in test scores.⁷⁷ These studies demonstrate that marijuana users who only use marijuana to manage pain on an infrequent basis may not exhibit the cognitive effects seen in more frequent users.

Even the effects of long term use of marijuana may not be as significant as some suppose. One study found “minimal effects on episodic and spatial working memory of near-daily smokers.”⁷⁸ A separate study found neuropsychological tests administered to current heavy cannabis users showed few significant differences between the users and controls on cognitive test measures, which suggested to the researchers that cannabis-associated cognitive deficits are reversible and related to recent cannabis exposure rather than irreversible and related to cumulative lifetime use.⁷⁹ Generally, then, most medical experts agree that the length of time over which marijuana is used may influence its effects on cognitive function.

These studies suggest that a medical marijuana user who takes moderate doses and does not necessarily use marijuana for long periods of time may not suffer the same cognitive effects that have been documented among more frequent, long term users.

A. Length of Influence

Employers addressing medical marijuana users in the workplace may be particularly concerned about how long the effects of marijuana use continue. According to the DSM IV, intoxication from herbal

74. Jason Schiffman et al., *Symptoms of Schizotypy Precede Cannabis Use*, 134 PSYCHIATRY RES. 37, 37 (2005).

75. Karen Bolla, et al., *Dose-Related Neurocognitive Effects of Marijuana Use*, 59 NEUROLOGY 1337, 1337-38, 1340 (2002).

76. *See id.* at 1341.

77. *See id.*

78. Carl L. Hart et al., *Neurophysiological and Cognitive Effects of Smoked Marijuana in Frequent Users*, 96 PHARMACOLOGY, BIOCHEMISTRY & BEHAV. 333, 337 (2010).

79. Pope, *Neuropsychological Performance*, *supra* note 68, at 914.

marijuana use develops within minutes if the cannabis is smoked, while taking a few hours to develop if ingested orally.⁸⁰ The effects of herbal marijuana generally last two to four hours.⁸¹ Cannabinoids taken orally are absorbed more slowly, and the peak effects do not occur until about ninety minutes after ingestion.⁸² The effects of orally ingested cannabinoids can persist for at least three to five hours.⁸³ The limited length of these effects contrast sharply with the detectable presence of cannabinoids through urine testing, discussed in the following section.

Research shows that any effect of marijuana use on work performance may be short-lived. One work performance study showed that the effects of marijuana use last at most for several hours.⁸⁴ In a second study, marijuana use increased response times during task performance, but affected short term memory.⁸⁵ Yet these effects peaked fifteen minutes after smoking.⁸⁶ Another study on the depersonalization effects of marijuana that could affect motivation to work showed that the effect peaked at approximately thirty minutes after smoking with the user returning to the baseline within two hours.⁸⁷

Although some research has reported subjective feelings of the effects of marijuana on the day following its use, most conclude that “[t]he few objective measures that purport to show decrements attributable to the consumption of marijuana a day earlier are suggestive at best.”⁸⁸ Studies also show that when the user’s intoxicated state is over, there is little evidence that the ability to recall prior events is

80. DSM-IV, *supra* note 55, at 237.

81. See U.S. DEP’T OF TRANSP. NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., DRUGS AND HUMAN PERFORMANCE FACT SHEETS (2004), available at <http://www.nhtsa.dot.gov/people/injury/research/job185drugs/index.htm>.

82. See DSM-IV, *supra* note 55, at 237; HART & KSIR, *supra* note 72, at 366; Ruth C. Stern & J. Herbie DiFonzo, *The End of the Red Queen’s Race: Medical Marijuana in the New Century*, 27 QUINNIPIAC L. REV. 673, 704 (2009) (citing LYNN ZIMMER & JOHN P. MORGAN, MARIJUANA MYTHS MARIJUANA FACTS 19 (1997)).

83. ROBERT JULIEN, A PRIMER OF DRUG ACTION 338 (7th ed. 1995).

84. John H. Kagel, Raymond C. Battalio, & C.G. Miles, *Marihuana and Work Performance: Results from an Experiment*, in MARIJUANA AND THE WORKPLACE, *supra* note 66, at 25, 39.

85. Hart et al., *supra* note 78, at 336.

86. See *id.*

87. See Roy J. Mathew et al., *Depersonalization After Marijuana Smoking*, 33 BIOLOGICAL PSYCHIATRY 431, 433-35 (1993).

88. UNDER THE INFLUENCE?: DRUGS AND THE AMERICAN WORK FORCE 114 (Jasques Normand, Richard O. Lempert, & Charles P. O’Brien eds., 1994) [hereinafter UNDER THE INFLUENCE?] (citing Jerome A. Yesavage et al., *Carry-Over Effects of Marijuana Intoxication on Aircraft Pilot Performance: A Preliminary Report*, 142 AM. J. PSYCHIATRY 1325 (1985) and Von Otto Leirer et al., *Marijuana Carry-Over Effects on Aircraft Pilot Performance*, 62 AVIATION, SPACE & ENVTL. MED. 221 (1991)).

affected.⁸⁹ Brain imaging studies also show the limited time of the effects of marijuana use among frequent users who had abstained for twenty-five days, there were no measurable differences in cognitive performance compared to non-users.⁹⁰ Among prolonged and heavy users of marijuana, studies have not shown any systematic decrements in mental activities that would suggest any long-term impairment of brain or cerebral function and cognition.⁹¹

As with the general effects of marijuana, the length of the effect varies among users. Generally, experts have concluded that smoking marijuana seems to have variable effects, with inconsistent decrements on performance.⁹² Factors that can affect the speed of activation and deactivation include the user's weight, gender, age, and mental state.⁹³

This line of research demonstrates that the effects of marijuana use vary considerably based on individual user characteristics. In addition, chronic users may experience significantly different effects than occasional users. The research does agree, however, that regardless of these individual differences, the effects of marijuana use almost always dissipate after a period of a few hours. This limited time frame supports reliance on something more than a positive drug test result to make important decisions about the employment of medical marijuana users.

B. Effects on Work

Many employers assume that marijuana use by employees will

89. DAVID M. GRILLY, DRUGS AND HUMAN BEHAVIOR 244 (1989).

90. HART & KSIR, *supra* note 72, at 368.

91. GRILLY, *supra* note 89, at 245. *See also* Leo Hollister, *Health Aspects of Cannabis*, 38 PHARMACOLOGICAL REVS. 1, 8 (1986) (discussing recent studies that have refuted previous claims of marijuana causing brain atrophy); Gerry Jager et al., *Long-Term Effects of Frequent Cannabis Use on Working Memory and Attention: An fMRI Study*, 185 PSYCHOPHARMACOLOGY 358, 358 (2006) ("No evidence was found for long-term deficits in working memory and selective attention in frequent cannabis users after 1 week of abstinence."); Jeffrey Schaeffer et al., *Cognition and Long-Term Use of Ganja (Cannabis)* 213 SCI. 465 (1981) ("Generally, investigators have concluded that heavy and prolonged use has not led to impairment of mental and cognitive brain functions consistent with brain or cerebral dysfunction.")

92. *See* MARIJUANA AND THE WORKPLACE, *supra* note 66, at 47 (discussing that marijuana use is a highly idiosyncratic experience that affects people differently, and that marijuana may have different effects on job performance for women and men).

93. Matthew C. Rappold, Note, *Criminal Law—Evidence of Inactive Drug Metabolites in DUI Cases: Using a Proximate Cause Analysis to Fill the Evidentiary Gap Between Prior Drug Use and Driving Under the Influence*, 32 U. ARK. LITTLE ROCK L. REV. 535, 543-44 (2010) (citing Kimberly S. Keller, *Sobering up Daubert: Recent Issues Arising in Alcohol-Related Expert Testimony*, 46 S. TEX. L. REV. 111, 124 (2004)) (explaining additional factors used in Specific Extrapolation to determine blood alcohol content).

affect their work, but not all research supports this assumption. At a minimum, the research shows that the effects of marijuana on the ability to work vary significantly across marijuana users and the type of work involved.

Some studies have not recognized differences in effects across users, perhaps because all drug users were placed in just one category. This approach fails to acknowledge the differences between true abusers of controlled substances and those who use them for health-related reasons. According to the American Council for Drug Education, for instance, substance abusers, compared to non-abusing coworkers, are “ten times more likely to miss work[,] 3.6 times more likely to be involved in on-the-job accidents[,] . . . five times more likely to file a worker’s compensation claim[,] 33% less productive[, and are] responsible for health care costs that are three times as high.”⁹⁴ This study may not be relevant to the effects of marijuana for an employee using limited amounts for medical purposes.

Looking more specifically at marijuana use, a Health and Human Services Survey found that among full time workers, behavior varied between those who had used marijuana in the past month and those who had not.⁹⁵ In considering absenteeism, the survey found that 16.1% of recent marijuana users had missed two or more days of work in the past month due to illness or injury, compared to 11.2% for non-users.⁹⁶ Similarly, 16.9% of the marijuana users had skipped one or more days of work in past month, compared to 8.3% of the non-users.⁹⁷ These results may not apply to medical marijuana users because chronic dependence or abuse was more strongly associated with a greater risk for absenteeism than was substance use per se.⁹⁸

Other research does not establish that marijuana use has a significant impact on work. Studies that focus directly on the effects of marijuana use on work have demonstrated that not all people experience a sharp decrease in productivity.⁹⁹ Looking specifically at drug testing, many studies have failed to find a definitive link between drug testing

94. *Why Worry about Drugs and Alcohol in the Workplace?*, AM. COUNCIL FOR DRUG EDUC., <http://www.acde.org/employer/DAwork.htm> (last visited May 12, 2012).

95. See Sharon L. Larson et al., *Worker Substance Use and Workplace Policies and Programs*, U.S. DEP’T HEALTH & HUMAN SERVS. (June 2007), <http://www.oas.samhsa.gov/work2k7/work.htm#6.1>.

96. *Id.*

97. *Id.*

98. *See id.*

99. *See MARIJUANA AND THE WORKPLACE*, *supra* note 66, at 20-21.

and organizational gains in safety or productivity.¹⁰⁰ For example, a prominent study of the military found that those “using only marijuana were significantly less likely than other drug users to report productivity loss.”¹⁰¹ In fact, the probability of productivity loss for marijuana users was 12%, compared to 28% for other drug users, and 14% to 48% for alcohol users.¹⁰²

These studies led to the conclusion by one group of experts that those using only marijuana were far less likely than other drug users to report a loss in productivity.¹⁰³ In particular, researchers found no relationship between marijuana and productivity in a ninety-eight day controlled study; instead, marijuana use was associated with a statistically significant increase in output per hour.¹⁰⁴ Along the same lines, research has shown a weak relationship between a positive pre-employment screen for marijuana and job suitability.¹⁰⁵

Similar to concerns about performance, employers may believe that medical marijuana users are more likely to engage in criminal activity. Yet this belief is not supported by current research.¹⁰⁶ Instead, researchers have found that cannabis use may tend to suppress criminal behavior, because of the mild lethargy that is induced during its use.¹⁰⁷

At the very least, research shows that the impact of marijuana use varies considerably across workers. One expert concluded that marijuana use is a “highly idiosyncratic experience that has different

100. See Debra R. Comer, *A Case Against Workplace Drug Testing*, 5 ORG. SCI. 259, 260 (1994). See also Russell Cropanzano & Mary Konovsky, *Drug Use and its Implications for Employee Drug Testing*, in 11 RESEARCH IN PERSONNEL AND HUMAN RESOURCES MANAGEMENT 207, 245 (Gerald R. Ferris ed., 1993); Michael M. Harris & Laura L. Heft, *Alcohol and Drug Use in the Workplace: Issues, Controversies, and Directions for Future Research*, 18 J. MGMT. 239, 248, 250 (1992); Frank J. Thompson et al., *Drug Testing in the Federal Workplace: An Instrumental and Symbolic Assessment*, 51 PUB. ADMIN. REV. 515, 519-20 (1991).

101. Robert M. Bray et al., *Drug and Alcohol Use in the Military Workplace: Findings from the 1988 Worldwide Survey*, in 2 DRUGS IN THE WORKPLACE: RESEARCH AND EVALUATION DATA 25, 37 (Steven W. Gust et al. eds., 1990).

102. See *id.* at 37 fig.5.

103. See *id.* at 37 (“Those using only marijuana were significantly less likely than other drug users to report productivity loss.”).

104. John H. Kagel et al., *Marijuana and Work Performance: Results from an Experiment*, 15 J. HUM. RESOURCES 373, 374, 384 tbl.2, 386 (1980).

105. See Michael A. McDaniel, *Does Pre-Employment Drug Use Predict On-the-Job Sustainability?*, in MARIJUANA AND THE WORKPLACE, *supra* note 66 at 97, 106.

106. See GRILLY, *supra* note 89, at 246 (discussing findings that show low doses of marijuana have little effect on aggression and moderate to high doses tend to inhibit aggression); JULIEN, *supra* note 83, at 350-52 (citing commissions over the past 100 years concluding that marijuana is “not the demon it is often perceived to be” and positing that cannabis may actually suppress criminal behavior).

107. JULIEN, *supra* note 83, at 350. See GRILLY, *supra* note 89, at 246.

effects on different people.”¹⁰⁸ This led to a recommendation that “the goal of policy would be to identify those individuals for which illicit drug use does become problematic.”¹⁰⁹ Likewise, another work productivity study found that the effects on number of hours worked after smoking marijuana varied as a function of individual subject and/or situational characteristics.¹¹⁰

The effect of drug use on performance is heavily dependent on a variety of factors, including the amount of the drug consumed, the frequency of usage, and the degree of addiction.¹¹¹ Other factors such as setting and expectation, as well as motivation to perform well, may affect a marijuana user’s performance.¹¹² One researcher noted that studies showing the effect of drug use on performance must be interpreted with caution, in part because drug users differ from non-users in many respects, and therefore other personal characteristics may be causing absenteeism and performance issues.¹¹³ He concluded that the “empirical evidence of a relationship between drug usage and industrial accidents or performance problems is inconclusive.”¹¹⁴

Experience also establishes the potential beneficial effects of marijuana use. One insurance expert has noted that “if there is a benefit to using medical marijuana and workers can return to the job more quickly, then overall there might be a reduction in the combined medical expense and wage replacement costs.”¹¹⁵ This expert points out that the “key is getting a worker back on the job as quickly as possible, ‘as long as he can perform safely and productively.’”¹¹⁶ Further “‘as long as the use of medical marijuana is kept in a medical environment that is closely monitored by a qualified medical professional,’ this should be no different than the use of any other drug.”¹¹⁷

At best, the research on the effects of marijuana use by employees is inconclusive. Effects certainly vary depending on the amount used,

108. Robert Kaestner, *The Effect of Illicit Drug Use on the Labor Supply of Young Adults*, 29 J. HUM. RESOURCES 126, 145 (1994).

109. *Id.*

110. See Kagel, *supra* note 104, at 389.

111. See Scott Macdonald et al., *The Limitations of Drug Screening in the Workplace*, 132 INT’L LAB. REV. 95, 101 (1993) [hereinafter Macdonald, *Limitations of Drug Screening*].

112. GRILLY, *supra* note 89, at 243.

113. Macdonald, *Limitations of Drug Screening*, *supra* note 111, at 102.

114. *Id.*

115. Michael J. Moody, *Medical Marijuana: A Burning Question*, THE ROUGH NOTES COMPANY, INC., http://www.roughnotes.com/rnmagazine/2011/may2011/2011_05p104.htm (last visited May 13, 2012).

116. *Id.*

117. *Id.*

frequency of use and the personal characteristics of the user. In addition, controlled marijuana use may improve productivity by addressing medical concerns for which it is intended. Therefore, employers should be cautious in screening or discharging employees based solely on a positive drug screen, without other evidence of an effect on work performance.

C. Accidents & Injuries

Employers often justify excluding drug users from the workplace based on fears that users will cause accidents or other injuries.¹¹⁸ Yet the research testing this relationship is not definitive. Rather, most epidemiological studies show little evidence that marijuana users are more likely to be involved in a driving accident compared to non-users.¹¹⁹

Some research does show that employees who have tested positive for illicit drug use were significantly more likely to have a reportable accident.¹²⁰ A study of postal employees found that those who tested positive for marijuana prior to hire had 55% more industrial accidents and 85% more injuries.¹²¹ Employers' concerns also are supported by a study of fatal truck accidents by the National Safety Transportation Board in 1990, which revealed that only one third of the drivers tested positive for illicit drugs (including 13% testing positive for marijuana).¹²² Drug impairment was determined to be a factor in over 90% of the cases in which the driver tested positive.¹²³ Another study found that employees testing positive for marijuana use were 1.55 times more likely to have an accident at work compared to those not testing positive.¹²⁴ In addition, laboratory studies using driving simulators have been more likely to find an effect on abilities from marijuana use.¹²⁵

118. See *infra* notes 122-27 and accompanying text.

119. HART & KSIR, *supra* note 72, at 374.

120. Dennis J. Crouch et al., *A Critical Evaluation of the Utah Power and Light Company's Substance Abuse Management Program: Absenteeism, Accidents and Costs*, in DRUGS IN THE WORKPLACE: RESEARCH AND EVALUATION DATA 169, 170 (Steven W. Gust & J. Michael Walsh eds., 1989).

121. Craig Zwerling et al., *The Efficacy of Preemployment Drug Screening for Marijuana and Cocaine in Predicting Employment Outcomes*, 264 J. AM. MED. ASS'N 2639, 2643 (1990).

122. NAT'L TRANSP. SAFETY BD., SS-90/01, SAFETY STUDY: FATIGUE, ALCOHOL, OTHER DRUGS, AND MEDICAL FACTORS IN FATAL-TO-THE-DRIVER HEAVY TRUCK CRASHES (1990), available at <http://www.nts.gov/safety/safetystudies/SS9001.html>.

123. *Id.*

124. See Zwerling, *supra* note 121, at 2642 tbl.4.

125. See HART & KSIR, *supra* note 71, at 374; J.G. Ramaekers et al., *Dose Related Risk of*

Other research has shown that acute marijuana intoxication affects a wide range of tasks associated with driving.¹²⁶ One study in Australia found that cannabis use has a significant impairing effect on driving when used alone, as evidenced by the presence of cannabis as the sole psychoactive drug in an increasing number of road fatalities.¹²⁷ Yet this study noted that the effects were mainly limited to a four hour period following use.¹²⁸ Similarly, a Canadian study has found that cannabis use diminishes driving faculties and had a marginally significant association with an elevated risk of collision, but the hypothesis that driving under the influence of cannabis positively related to aggressive driving was not corroborated.¹²⁹

Not all research, however, supports employers' concerns about accidents caused by marijuana use by employees. For lower doses of cannabis in particular, the only effect documented has been the tendency to drive slower, with some users showing an improvement in driving.¹³⁰ In one study of workplace accidents, there was no significant relationship between the occurrence of on the job accidents and testing positive for marijuana metabolites on a pre-employment drug test, even when controlling for job category.¹³¹ In line with this research, a study of accidents under the oversight of the Federal Railroad Administration found that "only a small proportion of cannabinoid use" was positively associated with railroad accidents.¹³² Similarly, a study of employees in Canada found such an insignificant relationship between drug use and accidents that the study concluded that drug-testing in the workplace was

Motor Vehicle Crashes after Cannabis Use, 73 DRUG & ALCOHOL DEPENDENCE 109, 113-14 (2004).

126. MARIJUANA AND THE WORKPLACE, *supra* note 66, at 19-20 (citing a variety of studies showing effects on hand-eye coordination, reaction time, and spatial and temporal judgments).

127. See Carl J. O'Kane et al., *Cannabis and Driving: A New Perspective*, 14 EMERGENCY MED. 296, 296 (2002).

128. *Id.* at 297.

129. See Isabelle Richer & Jacques Bergeron, *Driving Under the Influence of Cannabis: Links with Dangerous Driving, Psychological Predictors, and Accident Involvement*, 41 ACCIDENT ANALYSIS & PREVENTION 299, 304-05 (2009).

130. See HINDRIK W.J. ROBBE & JAMES F. O'HANLON, U.S. DEP'T TRANSP. NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DOT HS 808078, MARIJUANA AND ACTUAL DRIVING PERFORMANCE 46 (1993) [hereinafter ROBBE & O'HANLON]; Harry Klonoff, *Marijuana and Driving in Real-Life Situations*, 186 SCI. 317, 321 tbl.3 (1974).

131. Jacques Normand et al., *An Evaluation of Preemployment Drug Testing*, 75 J. APPLIED PSYCHOL. 629, 635 (1990).

132. David E. Moody et al., *Mandatory Post-Accident Drug and Alcohol Testing for the Federal Railroad Administration: A Comparison of Results for Two Consecutive Years*, in 2 DRUGS IN THE WORKPLACE: RESEARCH AND EVALUATION DATA 79, 92 (Steven W. Gust et al. eds., 1990).

not “empirically justifiable.”¹³³

Factors other than marijuana use may have a much greater influence on workplace safety. One study suggested as early as 1993 that factors showing a generally deviant character, job structure, and job attitude were significantly more relevant than drug use to the occurrence of accidents in low risk jobs.¹³⁴ Even in high risk jobs, where substance use was associated with higher accident rates, variables measuring general deviance, job structure, and job attitude were also strongly associated with on-the-job accidents.¹³⁵ These results led the researchers to conclude that substance use “did not add significantly to the prediction of accidents in either the high- or low-risk groups after controlling for other personal, deviance, and work-environment factors.”¹³⁶

In line with these research findings, the National Research Council committee noted that any observed link between drug use and accidents or work behavior could be spurious, due to common causation by the trait of deviance.¹³⁷ The committee offered this hypothesis: “deviance may be a better explanation than impairment of the links between alcohol and other drug use and undesirable work behavior. If so, confronting deviant behaviors and attitudes may be a more effective strategy than narrow antidrug programs for both preventing workplace decrements and treating poorly performing workers.”¹³⁸

If studies linking drug usage and safety issues do not control for deviance, then those studies may have little significance for medical marijuana users who may not carry a deviant personality trait.

Regarding driving specifically, the Department of Transportation research has shown that the use of marijuana only causes a “moderate degree of driving impairment,” which was found to be related to the THC dose consumed.¹³⁹ The impairment was not considered exceptional compared to the effects of medicinal drugs and alcohol, and

133. Scott Macdonald, *The Role of Drugs in Workplace Injuries: Is Drug Testing Appropriate?*, 25 J. DRUG ISSUES 703, 717 (1995).

134. See Melvin L. Holcom et al., *Employee Accidents: Influences of Personal Characteristics, Job Characteristics, and Substance Use in Jobs Differing in Accident Potential*, 24 J. SAFETY RES. 205, 206, 215 tbl.4 (1993). Factors used to measure a deviant lifestyle included having parents or other family members with substance abuse problems, associating with problematic or substance-using peers, having higher levels of depression, and attending religious services less frequently. *Id.* at 215 tbl.4.

135. *Id.* at 216.

136. *Id.* at 218.

137. See UNDER THE INFLUENCE?, *supra* note 88, at 133.

138. *Id.*

139. ROBBE & O’HANLON, *supra* note 130, at II.

the adverse effects of THC on driving performance were described as “relatively small.”¹⁴⁰ Similarly, a study on the association between psychoactive drug use and motor vehicle accidents requiring hospitalization found no increased risk of road trauma for drivers exposed to cannabis.¹⁴¹ A third study concluded that there was insufficient evidence to support the use of drug and alcohol testing of occupational drivers as a means to prevent injuries.¹⁴²

These studies suggest that a policy barring medical marijuana users from driving positions may be both over and under inclusive. A policy against driving by anyone who tests positive for marijuana may be too broad in that some medical marijuana users may not suffer any negative effects on their ability to drive. Such a policy would also be under inclusive, since many other factors beyond the use of marijuana, such as risk-taking personality, fatigue, and alcohol use can have as much, if not more, of an effect on an employee’s ability to drive safely.

Medical research provides some limited guidance on when a medical marijuana user should be considered “intoxicated” or “impaired.” Cognitive functions may be affected for short periods of time after use.¹⁴³ This research, however, also makes it clear that the effects of marijuana use vary considerably based on the amount used, the frequency of use, and the individual’s body makeup.¹⁴⁴ In addition, the impact on the ability to work even when the person is feeling the effects of marijuana use may be limited to positions that require quick reaction to unexpected events or the ability to perform complex tasks.¹⁴⁵ Therefore, this research supports an individual approach to medical marijuana users in the workplace, depending on their level of usage and its effects on them individually.

III. TESTING FOR IMPAIRMENT

Many employers administer drug tests to applicants and employees as a hiring screen or a basis for discipline or discharge, and most

140. *Id.*

141. K. L. L. Movig et al., *Psychoactive Substance Use and the Risk of Motor Vehicle Accidents*, 36 ACCIDENT ANALYSIS & PREVENTION 631, 634-35 (2004) (finding no association between exposure to cannabis and road accidents).

142. Clodagh M. Cashman et al., *Alcohol and Drug Screening of Occupational Drivers for Preventing Injury*, in COCHRANE DATABASE OF SYSTEMATIC REVIEW 2 (2009).

143. See discussion *supra* Part II.

144. *Id.*

145. *Id.*

employers respond to a positive drug test with discharge.¹⁴⁶ Marijuana is one of the controlled substances typically screened in a drug test.¹⁴⁷ This reliance on testing has continued despite the limited evidence of the effects of marijuana use on the ability to work as outlined above. Moreover, experts continue to agree that a positive drug test has no connection to a person's impairment for the reasons explained below. Some employers also rely on drug tests without the procedural safeguards recommended, including review of results by a medical review officer.¹⁴⁸ For the reasons discussed below, employers should, at most, use a drug test as a preliminary mechanism to determine if someone is fit to work, and follow up with the methods outlined in the following section that more accurately determine whether someone is intoxicated or under the influence.

The reliance on drug testing continues to be widespread among employers, despite its limitations. A survey conducted by the Society for Human Resource Management (SHRM) in March 2011 revealed that 57% of the responding employers conduct drug testing on all job candidates, and another 10% require testing of candidates for selected jobs.¹⁴⁹ The same employers responded that 36% conduct drug testing of current employees.¹⁵⁰ The most common reason for post-employment testing was involvement in a workplace accident, followed by 47% who conduct random testing of current employees.¹⁵¹ These results are consistent with earlier American Management Association surveys showing the widespread use of drug testing by employers.¹⁵² Among employers in the SHRM survey, 84% used urine testing analyzed in a lab, and 24% used instant result urine testing.¹⁵³

146. See KENNETH D. TUNNELL, *PISSING ON DEMAND: WORKPLACE DRUG TESTING AND THE RISE OF THE DETOX INDUSTRY* 53 (2004).

147. See HART & KSIR, *supra* note 72, at 72.

148. See discussion *infra* pp. 303.

149. *Drug Testing Efficacy SHRM Poll*, SOC'Y FOR HUMAN RESOURCE MGMT. 1, 7 (Sept. 7, 2011), <http://www.shrm.org/Research/SurveyFindings/Articles/Pages/IDrugTestingEfficacy.aspx> [hereinafter SHRM Poll].

150. *Id.* at 9.

151. *Id.* at 12.

152. See *AMA 2004 Workplace Testing Survey: Medical Testing*, AM. MGMT. ASS'N (Sept. 3, 2003), <http://www.amanet.org/training/articles/2004-Medical-Testing-Survey-17.aspx> (showing that nearly 63% of the surveyed U.S. companies require medical testing of current employees or new hires and that 47.5% of the surveyed companies require medical testing of newly hired personnel or applicants).

153. SHRM Poll, *supra* note 149, at 21. Another author notes that 82.1% of employers used urine tests, 12.9% tested blood, 1.1% tested hair and .9% used performance testing. See TUNNELL, *supra* note 146, at 39.

From the employee perspective, a national study conducted in 2010 found that an estimated 54 million full time workers reported some type of drug testing by their employers.¹⁵⁴ Among those employees, 42.9% reported testing for drug or alcohol use during the hiring process, and 29.6% reported random drug testing of current employees.¹⁵⁵ Larger employers (500+ employees) are more likely to conduct random testing than smaller ones.¹⁵⁶ The highest prevalence of applicant testing was reported among employees in protective service (76.2%) and transportation and material-moving (73.3%), followed by production occupations (63.1%) and installation, maintenance and repair (57.4%).¹⁵⁷ Random testing was most common in—transportation and material moving (62.9%) and protective service (61.8%), followed by installation, maintenance and repair (42%), and production occupations (40.9%).¹⁵⁸ While employer drug testing continues to be prevalent, positive test results continue to decline, as shown by a reduction in the positive test rate for marijuana from 2.5% in 2005 to 2.0% in 2009.¹⁵⁹

Why has drug testing continued to be so prevalent among employers? Two basic explanations were offered in 1994 that may still hold true: immorality and restoring the image of control.¹⁶⁰ Illegal drug use has traditionally been seen as immoral and irrational, both because of its illegality and its threat to the moral order of organizations.¹⁶¹ Similarly, other researchers have theorized that accidents involving drug-using employees can be attributed at least in part to deviant aspects such as social nonconformity, criminal behavior, and other behaviors indicating social maladjustment, rather than their drug use alone.¹⁶² Because of its irrationality, organizations may perceive that employee

154. SHARON L. LARSEN ET AL., DEP'T HEALTH & HUMAN SERVS. – SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., DHHS PUBLICATION NO. SMA 07-4273, WORKER SUBSTANCE USE AND WORKPLACE POLICIES AND PROGRAMS 45 (June 2007), available at <http://oas.samhsa.gov/wor7k2k7/work.pdf>.

155. *Id.* at 46.

156. *See id.* at 55.

157. *Id.* at 47.

158. *Id.* at 54.

159. U.S. Worker Use of Prescription Opiates Climbing, Shows Quest Diagnostics Drug Testing Index, PR NEWswire (Sept. 16, 2010), <http://www.prnewswire.com/news-releases/us-worker-use-of-prescription-opiates-climbing-shows-quest-diagnostics-drug-testing-index-103057759.html>.

160. *See* J. Michael Cavanaugh & Pushkala Prasad, *Drug Testing as Symbolic Managerial Action: In Response to "A Case Against Workplace Drug Testing,"* 5 ORG. SCI. 267, 269 (1994).

161. *Id.* at 268-69.

162. Holcom, *supra* note 134, at 206-07.

drug use does not correspond to customary management responses.¹⁶³ For this reason, employers may turn to drug testing as a symbolic yet seemingly objective way to address the irrationality and immorality of drug use by employees.¹⁶⁴

Even though this rationale may explain the popularity of drug testing in general, it does not necessarily support drug testing as applied to medical marijuana users. First, medical marijuana use should not be considered irrational or immoral because its use is based on a physician's recommendation and conforms with the criminal statutes in states which have adopted medical marijuana protections. Secondly, medical marijuana use does not necessarily threaten the moral fabric of the employer's organization. In fact, the use of marijuana for medical purposes may promote more productivity among its users because it addresses at least some of their medical issues which may have inhibited performance in the past. Lastly, medical marijuana users do not necessarily exhibit the other social nonconformity characteristics associated with workplace accidents because they are using marijuana in controlled amounts for a specific medical purpose.

A. Drug Testing's Limitations

Despite its popularity, drug testing does not provide an employer with information about an employee's intoxication or impairment at work.¹⁶⁵ Most drug tests, including the most commonly used urine test, fail to prove that a person is under the influence of or impaired by a drug.¹⁶⁶ As early as 1994, one critic explained that that "[a] urine test cannot ascertain the quantity of a drug consumed, the time of consumption, or its effect on the user."¹⁶⁷ For this reason, even the manufacturer of the EMIT test has warned that the test "does not indicate intoxication" and that "[t]he psychoactive effects of marijuana and hashish do not correlate with urinary metabolite levels obtained by any method."¹⁶⁸

163. See Cavanaugh & Prasad, *supra* note 160, at 268-69.

164. See *id.* at 269.

165. TUNNELL, *supra* note 146, at 54.

166. *Id.* See also M.R. Levine & W.P. Rennie, *Pre-Employment Urine Testing of Hospital Employees: Future Questions and Review of Current Literature*, 61 OCCUPATIONAL & ENVTL. MED. 318, 319 (2004) ("[T]he presence of a banned substance does not mean that cognitive impairment is present or clinical performance is impacted."); Mark P. Stevens & James R. Addison, *Interface of Science & Law in Drug Testing*, 23 CHAMPION 18, 18 (1999).

167. Comer, *supra* note 100, at 261.

168. KEVIN ZEESE, DRUG TESTING LEGAL MANUAL § 3.25 (2nd ed., 1996).

One expert explains that it is “virtually impossible to detect impairment level through any examination of drug metabolites in urine” because individual metabolic rates differ.¹⁶⁹ The limitations of drug testing led the Ontario Court of Appeal to hold that both urine and saliva test results were not admissible because those tests could not establish an employee’s impairment.¹⁷⁰ Along this same line of reasoning, the Ontario Human Rights Commission has recommended that “[d]rug and alcohol testing should be limited to determining actual impairment of an employee’s ability to perform or fulfill the essential duties or requirements of the job. It should not be directed towards simply identifying the presence of drugs or alcohol in the body.”¹⁷¹

1. Lack of Connection to Impairment

A positive urine test establishes nothing more than some prior use or exposure to the controlled substance, and should not be used as evidence of current intoxication or impairment.¹⁷² As one expert explained, “[w]e cannot . . . assign particular behavioral consequences to the presence of [cannabis] metabolites in the urine.”¹⁷³ A medical review officer stated back in 1994 that “[t]he presence of drug metabolites in the urine correlates poorly with any immediate impairment of the individual being tested.”¹⁷⁴ Drug tests are inaccurate indicators of impairment because most of the metabolites detected with a

169. TUNNELL, *supra* note 146, at 54. See also EDITH BEAULIEU ET. AL., REPORT OF THE MAINE COMMISSION TO EXAMINE CHEMICAL TESTING OF EMPLOYEES 21 (1986) (“Science is presently incapable of relating urine concentration levels of substances of abuse, or their metabolites, with actual impairment.”).

170. *Entrop v. Imperial Oil Ltd.*, (2000) 50 O.R. 3d 18, para. 99 (Can. Ont. C.A.). See also Graeme McFarlane, *Human Rights & Workplace Woes: The Perils of Impairment Testing*, HR VOICE (July 18, 2010), <http://www.hrvoice.org/human-rights-workplace-woes-the-perils-of-impairment-testing/>.

171. ONT. HUMAN RIGHTS COMM’N, POLICY ON DRUG AND ALCOHOL TESTING (2009), available at http://www.ohrc.on.ca/sites/default/files/attachments/Policy_on_drug_and_alcohol_testing.pdf.

172. Stevens & Addison, *supra* note 166, at 20. See also NAT’L INST. OF DRUG ABUSE, URINE TESTING FOR DRUGS OF ABUSE 87 (Richard L. Hawks & C. Nora Chiang eds., 1986), available at <http://archives.drugabuse.gov/pdf/monographs/73.pdf>; ZEESE, *supra* note 168, at § 3.25; Nachman Brautbar, *Intoxication, Drugs of Abuse Testing & Forensics Application*, ENVIRONMENTALDISEASES.COM, http://www.environmentaldiseases.com/article_intoxication_forensics.html (last visited May 13, 2012).

173. UNDER THE INFLUENCE?, *supra* note 88, at 114.

174. D. Kim Broadwell, *The Evolution of Workplace Drug Screening: A Medical Review Officer’s Perspective*, 22 J. L. MED. & ETHICS, 240, 241 (1994).

urine test are not “pharmacologically active,” and only establishing past drug use as “[t]here is no reliable evidence that urine drug and metabolite concentrations correlate with behavior.”¹⁷⁵ In fact, very recent ingestion that can cause impairment will not always result in a positive drug test because the drug has not metabolized.¹⁷⁶

A drug test will be positive for marijuana long after the effects described in the previous section have dissipated.¹⁷⁷ This is because metabolites from marijuana have a half-life of fifty hours, so that after one week, 25-30% of the metabolites may remain in the body.¹⁷⁸ Consequently, urine will contain marijuana metabolites for as long as three to four weeks after an employee’s last use.¹⁷⁹ Experts with the Mayo Clinic estimate that herbal marijuana use can be detected for up to one week after a single use, for as long as ten to fifteen days after daily use, and as long as forty-six days after cessation of long-term use.¹⁸⁰ Even a proponent of drug testing admits in his “how to” guide that a positive result on a urinalysis “cannot be used to prove intoxication or impaired performance” because “[i]nert drug metabolites may appear in urine for several days (or weeks depending upon the drug) without [being] related [to] impairment.”¹⁸¹

A recent review considered whether drug testing for marijuana was justified in the workplace.¹⁸² The experts concluded that urine tests have “poor validity and low sensitivity” if used for the purpose of identifying employees posing a safety risk in the workplace.¹⁸³ Evidence also failed to show that use of urinalysis has had a meaningful impact on workplace injury or accident rates.¹⁸⁴

As this research demonstrates, drug tests tell an employer little

175. UNDER THE INFLUENCE?, *supra* note 88, at 193.

176. TUNNELL, *supra* note 146, at 54; Zeese, *supra* note 168, § 3.25.

177. See TUNNELL, *supra* note 145, at 54 (stating that chronic users who discontinue drug use for several days may still test positive on a drug test).

178. HART & KSIR, *supra* note 72, at 364.

179. TUNNELL, *supra* note 146, at 39 (citing Anita Timrots, U.S. Dep’t of Justice, *Fact Sheet: Drug Testing in the Criminal Justice System*, DRUGS AND CRIME DATA (Mar. 1992), <https://www.ncjrs.gov/pdffiles/dtest.pdf>). See also JULIEN, *supra* note 83, at 340.

180. Karen E. Moeller et al., *Urine Drug Screening: Practical Guide for Clinicians*, 83 MAYO CLINIC PROC. 66, 67 tbl.2, 71 (2008), available at <http://download.journals.elsevierhealth.com/pdfs/journals/0025-6196/PIIS0025619611611208.pdf>.

181. JOHN J. FAY, THE DRUG-FREE WORKPLACE: HOW TO GET THERE AND STAY THERE 135 (2000).

182. Scott Macdonald et al., *Testing for Cannabis in the Work-Place: A Review of the Evidence*, 105 ADDICTION 408 (2010).

183. See *id.* at 408.

184. *Id.*

more than the fact that at some time in the past, an applicant or employee has used a controlled substance that triggers a similar reaction in the body. An employer learns nothing about impairment or intoxication from a positive drug test result. For a medical marijuana user, this means that even if their marijuana use has absolutely no effect on their functioning at work, they may still test positive on a drug test and face the consequences imposed by their employer because of a positive test result.

2. Need to Standardize Drug Testing

Many employers' substance abuse policies are vague as to coverage, procedural details, implementation and confidentiality.¹⁸⁵ This lack of standardization is particularly concerning for medical marijuana users. Many employers are not required to and therefore may not use confirmatory tests or a medical review officer,¹⁸⁶ which undermines the reliability and significance of their test results.¹⁸⁷

The initial screening test typically used, the immunosay test, frequently results in false positives because the test often cannot distinguish one type of drug from another.¹⁸⁸ In addition, the immunosay test cannot indicate the amount of drug that has been detected.¹⁸⁹ For these reasons, experts agree that the results of an immunoassay test must be confirmed by an alternative testing technique.¹⁹⁰ Toxicologists have explained that confirmatory tests must be used to "identify unequivocally and quantitate one or more of the metabolites of THC"¹⁹¹ Regulations covering the transportation industry and Department of Health & Human Services (DHHS) require

185. Levine & Rennie, *supra* note 166, at 322.

186. See TUNNEL, *supra* note 146, at 40 (stating that 48% of companies relying on urinalysis drug testing use medical review officers to analyze test results and compare them to individual employees' medical condition and history).

187. See discussion *infra* pp. 310-315.

188. See Stevens & Addison, *supra* note 166, at 19-21 (charting a variety of drugs, including alcohol, and the different lengths of time that can pass between ingestion and testing positive). A study conducted in 1983 on urine samples, found that 66.5% of the test results were reported to be false positives, for reasons including passive inhalation, improper laboratory procedures, contaminated laboratory equipment, mixed up samples, and cross-reactivity with other legal drugs. *Id.* at 20.

189. See *id.* at 19.

190. ZEESE, *supra* note 168, at §§ 2.2, 3.4.

191. Arthur J. McBay et al., Letter to the Editor, *Urine Testing for Marijuana Use*, 249 J. AM. MED. ASS'N 881, 881 (1983). See also ZEESE, *supra* note 168, at § 3.4 (noting the need for confirmation testing).

the use of a confirmatory specimen validity test.¹⁹² Yet these DHHS guidelines are designed to determine whether an employee has used marijuana at all, not the level of impairment.¹⁹³

The lack of a medical review officer (MRO) as part of the process also weakens the reliability of test results. DHHS Guidelines require review of test results by an MRO.¹⁹⁴ This MRO evaluation should include contacting the urine donor of a positive test “to determine if there is any legitimate medical explanation for the positive result;” and if so, the result is reported as negative.¹⁹⁵

MRO’s are particularly important for those who test positive because of a prescribed medication or medical marijuana use.¹⁹⁶ Researchers have noted that it is “essential” for medical review officers to “be an authority of the pitfalls of urine drug tests.”¹⁹⁷ Federal transportation regulations and DHHS guidelines require that the medical review officer confirm a positive test result for marijuana, offering the person an opportunity to present a legitimate medical explanation for the positive test result.¹⁹⁸

Despite the importance of using MRO’s, many employers skip this step. One researcher found that among companies that do not use nationally certified labs, only 48% of those using urinalysis also use a medical review officer to analyze findings.¹⁹⁹ As early as 1994, it was noted that the absence of medical review of positive drug test results was a “source of legal liability and problems for companies and laboratories.”²⁰⁰

Some states impose similar standards on any drug testing required of employees, recognizing the importance of standardization. Yet, of the thirty-four states that place some limits on the administration of drug testing for employees, only six require the involvement of a medical review officer.²⁰¹ Five other states require employers to use certified or

192. 49 C.F.R. § 40.89 (2009); Department of Health and Human Services: Mandatory Guidelines for Federal Workplace Drug Testing Programs, 73 Fed. Reg. 71,858, 71,861 (Nov. 25, 2008) [hereinafter DHHS Mandatory Guidelines].

193. DHHS Mandatory Guidelines, 73 Fed. Reg. at 71,861.

194. *See id.* at 71,858, 71,867-68, 71,871, 71,892-93, 71,900.

195. *Id.* at 71,900.

196. *See* Levine & Rennie, *supra* note 166, at 321-22.

197. *Id.* at 322.

198. *See* 49 C.F.R. § 40.129; DHHS Mandatory Guidelines, *supra* note 192, 71,880 (noting the cutoff concentrations for drug testing of various drugs).

199. TUNNEL *supra* note 146, at 40.

200. Broadwell, *supra* note 174, at 241.

201. *See* FLA. STAT. ANN. § 440.102(5)(h) (West 2009); IDAHO CODE ANN. § 72-1706(1) (2006); IOWA CODE ANN. § 730.5(7)(g) (West 2003); MD. CODE ANN. HEALTH-GEN. § 17-

approved laboratories,²⁰² which should include a medical review officer's involvement under federal standards.

Some states provide an applicant or employee with an opportunity to explain a positive drug test, even if a medical review officer is not required. For example, the Minnesota drug testing law requires employers to adopt a policy that allows any employee or applicant to "explain a positive test result on a confirmatory test . . ." ²⁰³ The Minnesota employer can then ask about medications that the person is taking, or "any other information relevant to the reliability of, or explanation for, a positive test result." ²⁰⁴ Other states, such as Alabama, Alaska, Arizona, Idaho, Iowa, and Maine also provide an opportunity for the employee to explain a positive test result. ²⁰⁵

These states' regulations provide some assurance to applicants and employees who use medical marijuana that they will not be automatically rejected or discharged based on a positive drug test. Outside of these states, private employers are free to purchase and administer various drug tests on their own. If they choose to test on site without using a certified laboratory, there is no requirement that a confirmatory test be used. They can also take an adverse action against an employee without the input of a medical review officer. This means that a medical marijuana user may have no opportunity to take a confirmatory test or explain a positive test result to a medical review officer. Instead, the test would be reported as positive, and the employer can respond as they see fit.

B. Impairment Testing

As an alternative to drug testing, impairment testing provides employers with pertinent information about an employee's fitness to work. Impairment from marijuana use may continue beyond the period in which the user experiences the subjective effects, including a feeling of intoxication. Yet studies have shown that impairment will still be

214(j)(1)-(2) (West 2009); VT. STAT. ANN. tit. 21, § 514(9), (11) (West 2007); N.Y. COMP. CODES R. & REGS. tit. 16 § 262.109 (Supp. 2011).

202. CAL. BUS. & PROF. CODE § 1206(a)(15) (West 2003); LA. REV. STAT. ANN. § 49:1005(A) (2003); ME. REV. STAT. ANN. tit. 26, § 683(6) (2007); N.C. GEN. STAT. § 95-231(1) (2012); UTAH CODE ANN. § 34-38-6(6)(b)(ii) (2011).

203. MINN. STAT. ANN. § 181.952(5) (West 2006).

204. *Id.* § 181.953(6)(b).

205. *See* ALA. CODE § 25-5-335(c)(2)(b) (2008); ALASKA STAT. § 23.10.620(b)(9) (2010); ARIZ. REV. STAT. ANN. § 23-493.04(A)(9) (1995); IDAHO CODE ANN. § 72-1706(1) (2006); IOWA CODE ANN. § 730.5(7)(c)(2) (West 2003); ME. REV. STAT. ANN. tit. 26, § 683(8)(B) (2007).

apparent to a trained observer.²⁰⁶

Beyond direct observation, impairment tests provide a way for employers to determine an employee's readiness to work. In contrast to traditional drug tests used by most employers, impairment tests provide much more accurate information about an employee's ability to work. These tests are used to measure basic cognitive functions to determine if an employee is too impaired to work.²⁰⁷ According to Lewis Maltby, president of the National Workrights Institute, impairment tests measure a worker's current state.²⁰⁸

As early as 1994, performance and skills testing was available to employers.²⁰⁹ Skills tests can assess reaction time and coordination, providing immediate results.²¹⁰ One human resources article recommends impairment testing because employees "can be tested for signs of current impairment," and such testing is "directly related to job performance."²¹¹ Similarly, human resources experts George Bohlander and Scott Snell offer impairment testing as a viable alternative to drug testing.²¹² They explain that impairment can be measured by requiring that an employee keep a cursor on track during a computer simulation, or with evaluation of eye movements.²¹³

Because of the limitations of drug test results, Bohlander and Snell recommend focusing on psychomotor functioning rather than relying on drug testing to prevent accidents at work.²¹⁴ Further, according to Robert MacCoun, "[p]sychologists and ergonomic specialists have developed a wide variety of valid psychomotor tests, and many are already in use in the military and other 'mission-critical'

206. Jerome H. Jaffe, *Drug Addiction and Drug Abuse*, in GOODMAN AND GILMAN'S THE PHARMACOLOGICAL BASIS OF THERAPEUTICS, 522, 551 (Alfred Goodman Gilman et. al. eds., 8th ed. 1990).

207. Jonathan Katz, *Impairment Tests as a Drug-Screen Alternative*, INDUSTRYWEEK (Feb. 17, 2010), http://www.industryweek.com/articles/impairment_tests_as_a_drug-screen_alternative_21074.aspx.

208. *Id.*

209. *See* Comer, *supra* note 100, at 263.

210. *Id.*

211. *Impairment Tests: An Alternative to Drug-Testing in the Workplace*, HR.COM (Feb. 22, 2001), http://hr.com/en/communities/benefits/impairment-tests—an-alternative-to-drug-testing-i_eacuzt03.html.

212. GEORGE BOHLANDER & SCOTT SNELL, *MANAGING HUMAN RESOURCES* 580 (15th ed. 2010).

213. *Id.*

214. *See id.* (noting that impairment testing measures an employee's alertness for work, and identifies employees who are impaired because of problems a drug test cannot spot, such as fatigue, stress, and alcohol use).

organizations.”²¹⁵

MacCoun also notes that “[t]he private sector has also begun to recognize the potential advantages of directly testing impaired psychomotor performance.”²¹⁶ There are a number of valid psychomotor tests that reliably measure impulsivity, sensation-seeking, and self-control.²¹⁷ MacCoun explains that “[t]he criminal deviance framing also distorts thinking about the effective management of risk. It focuses attention on use, but it distracts us from more direct ways of identifying safety risks, like routine psychomotor testing and mental health screening.”²¹⁸

Some employers have reported a decline in accidents after adopting the use of impairment tests. As early as 1992, organizations using performance tests reported that these tests were more effective and efficient than drug tests.²¹⁹ In a study of fourteen employers that used impairment testing, 100% reported that their experience was successful, and 82% found that such testing improved safety.²²⁰ For example, a construction company reported a decrease in accidents of 50-75%, and a petroleum products distributor reported a 50% decrease in accidents after using impairment testing.²²¹

These limited studies demonstrate the appropriateness of employers at least considering alternatives to drug testing as a means to determine whether workers are able to work. More studies may be needed to justify an employer’s investment in impairment testing as an alternative to drug testing. That investment may be worthwhile, since impairment testing can indicate whether an employee is capable of working safely even if a drug screen might be negative, while protecting those employees who may be using controlled substances legally and are still

215. Robert J. MacCoun, *Testing Drugs Versus Testing for Drug Use: Private Risk Management in the Shadow of Criminal Law*, 56 DEPAUL L. REV. 507, 520 (2007) (citing U.S. FED. MOTOR CARRIER SAFETY ADMIN., U.S. DEP’T OF TRANSP., INDIVIDUAL DIFFERENCE AND THE “HIGH RISK” COMMERCIAL DRIVER (2004), available at <http://www.fmcsa.dot.gov/facts-research/research-technology/tech/high-risk-commercial-driver.htm>).

216. MacCoun, *supra* note 215, at 520. In 1995, only 7% of worksites used performance testing. Tyler D. Hartwell et al., *Workplace Alcohol Testing Programs: Prevalence and Trends*, 121 MONTHLY LAB. REV. 27, 32 tbl.4 (1998).

217. MacCoun, *supra* note 215, at 520.

218. *Id.* at 537.

219. See Laurie McGinley, *Workplace: ‘Fitness’ Exams Help to Measure Worker Acuity*, WALL ST. J., Apr. 21, 1992, at B1.

220. *Impairment Testing – Does it Work?*, NAT’L WORKRIGHTS INST. (Feb. 4, 2011), <http://workrights.us/?products=impairment-testing-does-it-work>.

221. *Id.*

fully capable of working.²²²

IV. RECOGNIZING INTOXICATION OR IMPAIRMENT IN CRIMINAL CASES

If a drug test does not tell an employer when an employee or applicant is under the influence of marijuana, then what should an employer do? The research on intoxication or impairment resulting from the use of marijuana, as outlined in Part II of this article, provides limited insight into the specific effects of those substances on a person's ability to function. But this research does not give employers clear guidance as to when an employee or applicant can or cannot safely perform the job duties. Instead, employers can look to practices already in place in criminal law and workers' compensation claims. Close observation combined with individualized impairment testing, at least among medical marijuana users, will allow employers to determine who can perform safely and effectively.

Criminal statutes by necessity define intoxication or impairment to support conviction for an offense based on performing an activity such as driving while intoxicated or under the influence.²²³ Some states give some weight to a positive drug test in making this determination.²²⁴ Yet most states do not allow criminal prosecution based on a positive drug test alone. This approach in the criminal system points out the limitations of relying on a positive drug test alone to determine when a person is intoxicated or under the influence.

Employers often rely on criminality to justify taking adverse actions against applicants or employees who use controlled substances.²²⁵ In supporting the denial of unemployment compensation benefits for an employee who tested positive on a drug test, one court explained that the employer could base its decision on taking "a stand against illegal conduct by its employees."²²⁶ Similarly, one expert noted that "[c]riminal law facilitates the intrusive exercise of use testing in

222. See *supra* Part III.

223. See, e.g., N.Y. VEH. & TRAF. LAW §§ 1192(2), (2-a) (McKinney 2009).

224. See, e.g., MISS. CODE. ANN. § 63-11-5 (West 2011) ("Any person who operates a motor vehicle upon the public highways, public roads and streets of this state shall be deemed to have given his consent . . . to a chemical test or tests of his breath for the purpose of determining alcohol concentration.").

225. See Stephen M. Fogel, Gerri L. Kornblut & Newton P. Porter, *Survey of the Law on Employee Drug Testing*, 42 U. MIAMI L. REV. 553, 563 (1988) ("[E]mployers will ordinarily take adverse action against employees who have tested positive for illicit drug use.").

226. *Dolan v. Svitak*, 527 N.W.2d 621, 624, 626 (Neb. 1995).

workplaces.”²²⁷ He goes on to state that “[a] preference for drug testing over psychomotor testing suggests that use testing is really about drug control rather than safety.”²²⁸ In locations where medical marijuana use is no longer prosecuted, this justification is no longer viable. Yet the analysis of marijuana use in the criminal arena can provide some insight into the appropriate oversight of medical marijuana users by employers.

Some criminal statutes adopt a fairly absolute approach to illegal substance use, but even in these “per se” liability states, the effects have been moderated in the application of these statutes. Most states, however, will not base criminal liability on the results of a test for an illegal substance alone.²²⁹ Instead, conviction must be supported by actual behavior that demonstrates the effects of the controlled substance on the criminal defendant.²³⁰

A. Limitations of Test Results in Per Se States

Some criminal statutes addressing intoxication appear to rely quite heavily on drug test results. Seventeen states have adopted “per se” criminal liability for driving under the influence of drugs, which allows a presumption of impairment if a person tests positive for “any detectable amount of an illegal substance in his or her body.”²³¹ For example, in both Ohio and Nevada, it is illegal to drive with the presence of specific amounts of prohibited substances in one’s system.²³² Like these states,

227. Robert MacCoun, *Testing Drugs Versus Testing for Drug Use: Private Risk Management in the Shadow of Criminal Law*, 56 DEPAUL L. REV. 507, 508 (2007).

228. *Id.* at 521.

229. *See, e.g.*, WYO. STAT. ANN. § 31-5-233(d) (West 2011) (“Subsection (c) of this section shall not be construed as limiting the introduction of any other competent evidence bearing upon the question of whether the person was under the influence of alcohol, including tests obtained more than two (2) hours after the alleged violation.”).

230. *See, e.g.*, R.I. GEN. LAWS ANN. § 31-27-2(b)(1) (West 2011) (“Proof of guilt under this section may also be based on evidence that the person charged was under the influence of intoxicating liquor, drugs, toluene, or any controlled substance . . .”).

231. *See* J. MICHAEL WALSH, A STATE-BY-STATE ANALYSIS OF LAWS DEALING WITH DRIVING UNDER THE INFLUENCE OF DRUGS 1 (2009); *see also* ARIZ. REV. STAT. ANN. § 28-1381(A)(3) (Supp. 2011); DEL. CODE ANN. tit. 21 § 4177(a)(6) (West Supp. 2011); GA. CODE ANN. § 40-6-391(a)(6) (2011); 625 ILL. COMP. STAT. ANN. 5 / 11-501(a)(6) (West 2008); IND. CODE ANN. § 9-30-5-1(1)(c) (West 2004); IOWA CODE ANN. § 321J.2(1)(c) (West 2005); MICH. COMP. LAWS ANN. § 257.625(8) (West 2006); MINN. STAT. ANN. § 169A.20(1)(2) (West 2006); NEV. REV. STAT. ANN. § 484C.110(3) (West Supp. 2011); N.C. GEN. STAT. ANN. § 20-138.1(a)(3) (2012); OHIO REV. CODE ANN. § 4511.19(A)(1)(a) (West 2008); 75 PA. CONS. STAT. ANN. § 3802(d)(1) (West 2006); R.I. GEN. LAWS § 31-27-2(b)(2) (2010); UTAH CODE ANN. § 41-6a-517(2) (LexisNexis 2010); VA. CODE ANN. § 18.2-266(iii) (2009); WIS. STAT. ANN. § 346.63(1)(a) (West 2005).

232. *See* NEV. REV. STAT. ANN. § 484C.110(3) (West Supp. 2011); *see also* OHIO REV. CODE

Michigan's criminal code punishes drivers who test positive for "any amount of controlled substance" listed in the Public Health Code.²³³

In reviewing these statutes that criminalize behavior based on drug test results alone, some experts have argued that a positive test result for drug metabolites is insufficient evidence to prove a driving under the influence charge beyond a reasonable doubt, and reporting that test result will prejudice the defendant.²³⁴ Courts arguably should consider the lack of influence of an inactive metabolite on the body or mind of the defendant.²³⁵

Perhaps these experts' opinions have influenced the outcome in numerous recent state court decisions that have refused to allow convictions based on the presence of metabolites alone, even in states with per se liability. Several states have distinguished between the presence of a controlled substance and the mere presence of metabolites, which shows only some past use of such a substance.

For instance, in applying Michigan's criminal statute to marijuana users, the Michigan Supreme Court held that 11-carboxy-THC in a criminal defendant's blood by itself is not a Schedule I controlled substance and therefore its presence cannot support a criminal charge.²³⁶ Michigan's Public Health Code lists marijuana as a Schedule I controlled substance,²³⁷ and marijuana is defined to include all parts of the *Canabis* plant that cause a "high."²³⁸ This Court followed the lead of the federal courts, which had never held that 11-carboxy-THC is a controlled substance.²³⁹ Federal courts had reasoned that "the purpose of banning marijuana was to ban the euphoric effects produced by THC."²⁴⁰

The Michigan Supreme Court overturned a criminal conviction based on the presence of metabolites alone because the metabolites resulting from previous marijuana use did not meet any of the criteria for classifying a substance as a schedule one controlled substance.²⁴¹ This criteria includes:

ANN. § 4511.19(A)(1)(b)-(j) (West 2008).

233. MICH. COMP. LAWS ANN. § 257.625(8) (West 2006).

234. Rappold, *supra* note 93, at 563-64.

235. See EDWARD L. FIANDACH, HANDLING DRUNK DRIVING CASES § 2.8 (2008) (providing an example of a direct examination where "pharmacological activity" was defined as affecting, altering or influencing either the functioning of the brain or different organs in the body).

236. See *People v. Feezel*, 783 N.W.2d 67, 81 (Mich. 2010).

237. MICH. COMP. LAWS ANN. § 333.7212(1)(c) (West Supp. 2011).

238. *People v. Riddle*, 237 N.W.2d 491, 493 (Mich. 1975).

239. See *Feezel*, 783 N.W.2d at 81.

240. *United States v. Sanapaw*, 366 F.3d 492, 495 (7th Cir. 2004) (citing *United States v. Walton*, 514 F.2d 201, 202 (D.C. Cir. 1975)).

241. *Feezel*, 783 N.W.2d at 83, 86.

- (a) The actual or relative potential for abuse;
- (b) The scientific evidence of its pharmacological effect, if known;
- (c) The state of current scientific knowledge regarding the substance;
- (d) The history and current pattern of abuse;
- (e) The scope, duration, and significance of abuse;
- (f) The risk to the public health;
- (g) The potential of the substance to produce psychic or physiological dependence liability; and
- (h) Whether the substance is an immediate precursor of a substance already controlled under this article.²⁴²

Significantly, the Michigan Supreme Court also noted that if metabolites provided the basis for criminal conviction, “individuals who use marijuana for medicinal purposes will be prohibited from driving long after the person is no longer impaired.”²⁴³ In that case, experts had testified that, on average, the metabolite could remain in a person’s blood for eighteen hours and in a person’s urine for up to four weeks.²⁴⁴ Consequently, a broader application of the state’s criminal statute to include persons with inactive metabolites in their bodies would defy “practicable workability given its tremendous potential for arbitrary and discriminatory enforcement.”²⁴⁵

A Michigan Supreme Court’s 2010 decision has been applied to exclude evidence of the presence of a marijuana metabolite in a decedent’s blood to support the defense that the decedent caused the accident.²⁴⁶ The Court of Appeals of Michigan in *People v. Dienhert* reasoned that without “evidence that the decedent had smoked marijuana on the day of the accident or that the amount of marijuana in her system directly affected her ability to operate her vehicle with due care,” the evidence of metabolites “was irrelevant and only marginally probative of

242. *Id.* at 82.

243. *Id.* at 85.

244. *Id.*

245. *Id.*

246. *People v. Dienhert*, No. 285489, 2010 WL 3155054, at *8 (Mich. Ct. App. Aug. 10, 2010), *leave to appeal denied*, 794 N.W.2d 47 (Mich. 2011).

whether she operated her vehicle with due care.”²⁴⁷ Under this narrower definition under Michigan’s criminal code, a conviction cannot necessarily be based on any amount of THC in a defendant’s system.²⁴⁸ This logic has been followed by Michigan’s lower courts.

Courts in at least five other states have followed the Michigan Supreme Court’s reasoning. The Idaho Supreme Court held that a person’s license could not be suspended based on a positive drug test alone because the metabolite was not a controlled substance, is not “intoxicating,” and “only indicates that at some time in the past a person used marijuana.”²⁴⁹ Similarly, the Supreme Court of Kentucky and an Oklahoma Court of Appeals both have held that the presence of cocaine or marijuana metabolites in the urine of a defendant cannot be admitted to establish impairment to support criminal charges.²⁵⁰ The Supreme Court of Kentucky based the inadmissibility decision on witnesses’ acknowledgement that “the urine test indicated absolutely nothing about whether [the defendant] was impaired at the time of the accident.”²⁵¹

Using similar reasoning, the North Carolina Supreme Court and Utah Supreme Court have refused to uphold a conviction for possession of marijuana based on the presence of marijuana metabolites alone.²⁵² The North Carolina Supreme Court explained that “a positive urinalysis indicating the presence of marijuana metabolites alone is not substantial evidence sufficient to prove that defendant knowingly and intentionally possessed marijuana.”²⁵³

Like these other “per se” states, Arizona generally allows conviction based on a positive drug screen. Yet an Arizona appellate court allowed testimony by an expert who relied on drug test results because his opinion was not solely based on the drug test.²⁵⁴ That expert also considered the recency of the marijuana ingestion, police reports

247. *Id.*

248. *See* *People v. Barkley*, No. 283458, 2010 WL 5094404, at *2 (Mich. Ct. App. Dec. 14, 2010); *see also* *People v. Malik*, No. 293397, 2010 WL 3155181, at *2 (Mich. Ct. App. Aug. 10, 2010), *leave to appeal denied*, 794 N.W.2d 615 (Mich. 2011) (“the evidence of the presence of THC in defendant’s system is still relevant in determining whether he was operating his motor vehicle while intoxicated.”).

249. *Reisenauer v. State*, 188 P.3d 890, 892-93 (Idaho 2008).

250. *See* *Burton v. Commonwealth*, 300 S.W.3d 126, 137-38 (Ky. 2009); *see also* *Clark v. Turner*, 99 P.3d 736, 743 n.3 (Okla. Civ. App. 2004) (“The urine screen did not demonstrate that defendant was under the influence of marijuana . . .”).

251. *Burton*, 300 S.W.3d at 138.

252. *See* *State v. Harris*, 646 S.E.2d 526, 528 (N.C. 2007); *see also* *State v. Ireland*, 133 P.3d 396, 401-02 (Utah 2006).

253. *Harris*, 646 S.E.2d at 530.

254. *See* *State v. Lucero*, 85 P.3d 1059, 1064 (Ariz. Ct. App. 2004).

regarding his behavior, and studies regarding the effects of marijuana on driving for up to three hours.²⁵⁵ Similarly, in another per se state, an Indiana criminal court explained that it is not possible to determine the amount of marijuana present based on a drug test alone because “everyone reacts differently to the ingestion of substances and each person’s body processes substances differently. Further, there is no accepted agreement as to the quantity of a controlled substance needed to cause impairment.”²⁵⁶

The state court decisions outlined above prevent criminal conviction based on a positive drug test that only shows the presence of metabolites, even in states where criminal codes allow for convictions based on drug test results alone. These courts have recognized that a positive drug test alone, without corroborating evidence that show intoxication, does not support a criminal conviction. Moreover, the probative value of introducing such a positive test result is outweighed by the punitive effect on the defendant.

B. Focus on Effects

Most states do not have “per se” driving under the influence of drug criminal prohibitions.²⁵⁷ Instead, a majority of states require proof beyond a mere drug test to show that the driver was “under the influence.”²⁵⁸ An expert on driving under the influence in California explained that “[s]imply determining that the arrested driver has marijuana in his or her bloodstream does not give officers sufficient evidence that the drug impaired his or her driving.”²⁵⁹

These states focus on the effects of the use of the controlled substance on the driver, rather than convicting based on the presence of the drug or its metabolites alone. Arkansas’ statute, for example, considers whether a driver’s “reactions, motor skills, and judgment are substantially altered,” which causes “a clear and substantial danger of physical injury or death.”²⁶⁰ Similarly, “under the influence” has been defined by a New Jersey court as “a substantial deterioration or

255. *Id.*

256. *Shepler v. State*, 758 N.E.2d 966, 969 (Ind. Ct. App. 2001); *see also State v. Phillips*, 873 P.2d 706, 708 (Ariz. Ct. App. 1994).

257. *See Charles R. Cordova, Jr., Note, DWI and Drugs: A Look at Per Se Laws for Marijuana*, 7 NEV. L.J. 570, 571 (2007).

258. WALSH, *supra* note 231, at 1.

259. Vincent Howard, *Driving Under The Influence of Medicinal Marijuana in California*, 52 ORANGE COUNTY LAWYER 16, 17 (2010).

260. ARK. CODE ANN. § 5-65-102(2) (2005).

diminution of the mental faculties or physical capabilities of a person . . . due to intoxicating liquor, narcotic, hallucinogenic or habit-producing drugs . . . [so] as to render such a person a danger to himself or any other persons on the highway.”²⁶¹ Virginia and Minnesota similarly focus on the effects of the substance on the driver.²⁶²

In these states, a test result revealing metabolites is treated as circumstantial evidence of driving under the influence, which cannot be admitted by itself.²⁶³ In other words, the presence of a metabolite is probative of whether the criminal defendant was under the influence of a controlled substance “at some point in the past.”²⁶⁴ Some experts even argue that the presence of metabolites helps to show that the person testing positive was not intoxicated at the time of the test because the body has had time to metabolize the controlled substance.²⁶⁵ If there is other evidence of intoxication, then the test results may be admissible.²⁶⁶

These criminal statutes and the case law interpreting them demonstrate two things that are important for medical marijuana users in the workplace. First, the presence of metabolites alone, as demonstrated by a positive drug test, should not be interpreted as evidence of intoxication or being under the influence of marijuana. If this concept protects against criminal prosecution of those who have used marijuana as an illegal substance, then it certainly should protect medical marijuana users in the workplace who are protected against criminal prosecution for their use. Second, these criminal courts’ reasoning demonstrate that intoxication can best be determined based on individual observation of the defendant’s appearance and actions at the time of the alleged intoxication. Like the police, employers need training on what

261. *State v. Franchetta*, 925 A.2d 745, 748 (N.J. Super. Ct. App. Div. 2007) (citing *State v. Baelor*, 872 A.2d 1081, 1084 (N.J. Super. Ct. App. Div. 2005), *rev’d on other grounds*, 902 A.2d 226 (N.J. 2006)).

262. *See* VA. CODE ANN. § 18.2-266(iii) (2009); MINN. STAT. ANN. § 169A.20(1)(3) (West Supp. 2011). *See also* Cordova, *supra* note 257, at 588.

263. Rappold, *supra* note 93, at 539 (citing *State v. Bealor*, 902 A.2d 226, 231 (N.J. 2006); *Buckles v. State*, 830 P.2d 702, 706 (Wyo. 1992); *Robinson v. State*, 254 S.W.3d 750, 754 (Ark. Ct. App. 2007). *Cf.* *Mace v. State*, 944 S.W.2d 830, 832 (Ark. 1997) (laying out the definitions of “sufficient evidence” and “circumstantial evidence”); *State v. McClain*, 525 So. 2d 420, 421-23 (Fla. 1988).

264. Rappold, *supra* note 93, at 540 (citing *Franchetta*, 925 A.2d at 747; *People v. McAfee*, 104 P.3d 226, 228 (Colo. App. 2004); *McClain*, 525 So. 2d at 422).

265. Rappold, *supra* note 93, at 541, 543. *See* Fiandach, *supra* note 235, at § 2.8 (direct examination during which “pharmacological activity” was defined as affecting, altering or influencing either the functioning of the brain or different organs in the body); *see also* *Franchetta*, 925 A.2d at 749.

266. *See* *Franchetta*, 925 A.2d at 747-49.

characteristics indicate intoxication of an employee to prevent harm to that employee or others.

V. INTOXICATION AND WORKERS' COMPENSATION ELIGIBILITY

States' workers' compensation systems provide money and medical benefits for employees who are injured or become ill in connection with their work.²⁶⁷ More specifically, an injury or illness generally is compensable if it arises out of and in the course of employment.²⁶⁸ However, most state workers' compensation systems do not require compensation of employees if intoxication or impairment played a role in their injury or illness.²⁶⁹ The statutes and the case law associated with these workers' compensation programs provide a wealth of guidance on determining whether a medical marijuana user is intoxicated or impaired. Using this same analysis that has been used for years in reviewing workers' compensation claims, employers can determine whether a medical marijuana user should be hired or allowed to stay on the job.

The relevant state workers' compensation language specifying when an employer is not required to fully compensate the employee can be found in Appendix A of this article. While all workers' compensation programs typically exclude benefits for an injury or death caused in whole or in part by the injured employee's intoxication, state courts differ in how they have determined whether an employee is intoxicated.²⁷⁰ In particular, states vary as to which party has the burden of proving intoxication and what evidence helps them meet that burden.²⁷¹ Yet all of their analyses are helpful for employers and courts that are trying to determine whether a medical marijuana user is intoxicated at work.

267. *What is Workers' Compensation*, WORKERSCOMPENSATION.COM, http://www.workerscompensation.com/regulations/reference/content.php?ID=1010&state=new_york&category=ER,EE (last visited May 20, 2012).

268. *See, e.g.*, MASS. GEN. LAWS ch. 152 § 26 (2011); OKLA. STAT. ANN. tit. 85 § 308(10) (West 2006). *See also* ARK. CODE ANN. § 11-9-101(b) (West 2009) (stating that a primary purposes of workers' compensation laws are to compensate all legitimately injured workers who suffer an injury or disease arising out of and in the course of their employment).

269. *See Alcohol or Drug Abuse*, 2 MODERN WORKERS COMP. § 115:18 (West 2011) ("Generally speaking, in order to effectively defeat a workers' compensation claim based on the intoxication of the employee, the employer has the burden of proving both of the following elements: (1) the employee was in fact intoxicated at the time of the accident. (2) the employee's intoxication was the substantial cause of the injuries sustained").

270. *See infra* notes 275-301 and accompanying text.

271. *See infra* notes 345-81 and accompanying text.

The language of workers' compensation statutes provides little guidance on the question of whether a worker is intoxicated. Likewise, courts applying a state's workers' compensation statute have provided only broad definitions of "intoxication" to determine an employee's eligibility for benefits. In Alaska, for example, a court defined intoxication as "[a] condition of being drunk, having the faculties impaired by alcohol."²⁷² Similarly, a South Carolina court defined intoxication as "a condition that results from the use of a stimulant, which renders an employee impaired in his or her faculties to the extent that the employee is incapable of carrying on the accustomed work without danger to the employee."²⁷³ Like these courts, a Texas court defined intoxication as a situation where the "claimant did not have the normal use of [h]is mental and physical faculties."²⁷⁴ A Delaware court turned to Black's Law Dictionary for the definition of intoxication: "a situation where, by reason of drinking intoxicants, a party lacks the normal use of his physical or mental faculties, rendering him incapable of acting in the manner in which an ordinarily prudent and cautious man, using reasonable care, would act under the circumstances."²⁷⁵

None of these standard definitions provide much guidance to courts or to employers to determine when an employee should be denied workers' compensation benefits based on intoxication. But these definitions do place the focus appropriately on the conduct of the employee, rather than focusing on the presence of some remnant of alcohol or a controlled substance in the employee's system.

Courts reviewing workers' compensation claims typically rely on a combination of criminal liability standards and positive drug test results to determine whether an employer has established a presumption of intoxication that could defeat a claim.²⁷⁶ Yet many states require compliance with certain procedural safeguards before an employer can rely on drug test results.²⁷⁷ In addition, that presumption may not be available if other surrounding circumstances suggest that the employee was not actually intoxicated at the time of the injury. Even if the employer establishes a presumption of intoxication, the employee will

272. Parris-Eastlake v. State, 26 P.3d 1099, 1103 (Alaska 2001) (citing Beebe v. Nabors Alaska Drilling, No. 613086, 1987 WL 95328, at *2 (Alaska Workers' Comp. Bd. Feb. 13, 1987)).

273. Jones v. Harold Arnold's Sentry Buick, Pontiac, 656 S.E.2d 772, 774 (S.C. Ct. App. 2008) (citing Reeves v. Carolina Foundry & Mach. Works, 9 S.E.2d 919, 921 (S.C. 1940)).

274. Sanchez v. State Office of Risk Mgmt., 234 S.W.3d 96, 101 (Tex. Ct. App. 2007).

275. Stewart v. Oliver B. Cannon & Son, Inc., 551 A.2d 818, 822 (Del Super. Ct. 1988).

276. See *infra* notes 281-301 and accompanying text.

277. See *infra* notes 302-17 and accompanying text.

still be given an opportunity to overcome that presumption based on the surrounding circumstances, such as observations of others and their ability to work prior to the injury.

A. Criminal Definition

Many courts reviewing workers' compensation claims look to criminal definitions of "intoxication" to determine if the claim should be denied.²⁷⁸ Some states will typically deny a workers' compensation claim if the claimant clearly was in violation of criminal standard for intoxication at the time of the injury.²⁷⁹ For example, an Indiana court denying a claim based on the use of a prescribed medication looked to the motor vehicle code's definition of intoxication to determine whether the claimant suffered "an impaired condition of thought and action and the loss of normal control of a person's faculties."²⁸⁰ The claim was denied because the prescription caused an intoxicating effect, which contributed directly to the accident.²⁸¹ In states that follow this line of reasoning, courts will deny workers' compensation claims involving an employee who was under the influence of alcohol as defined by the state's criminal standards. Yet as outlined in Part IV of this article, even criminal liability may not follow without evidence that the use of a controlled substance affected the user's abilities.

Most states do not take such an absolute approach, even if the worker has potential criminal liability for intoxication. In these states, a workers' compensation claim will not be denied simply because testing shows that the person would have been in violation of the state's criminal standards for intoxication.²⁸² Instead, test results that may establish criminal liability are weighed against all other evidence of intoxication, just as occurs in a criminal case as described above.²⁸³ The claim may still be denied, but only if substantial evidence supports the conclusion that the injury was caused by the injured employee's intoxication.²⁸⁴

These courts are using state criminal standards with a focus on the

278. See, e.g., *Jones ex rel. Jones v. Pillow Express Delivery, Inc.*, 908 N.E.2d 1211, 1214 (Ind. Ct. App. 2009).

279. See, e.g., IND. CODE ANN. § 9-13-2-86 (West 2004);

280. *Pillow Express*, 908 N.E.2d at 1214 (citing IND. CODE ANN. § 9-13-2-86 (West 2004)).

281. *Pillow Express*, 908 N.E.2d at 1214.

282. See, e.g., *Poole v. Earp Meat Co.*, 750 P.2d 1000, 1003 (Kan. 1988).

283. See, e.g., *Smith v. Workers' Comp. Appeals Bd.*, 176 Cal.Rptr. 843, 849 (Cal. Ct. App. 1981).

284. See *id.*

actual effects of alcohol or a controlled substance on the driver.²⁸⁵ Courts look beyond the results of a test for metabolites or alcohol in the blood and inquire into the person's actual behavior that would support or disprove intoxication.²⁸⁶ This approach should be adopted by employers and courts who are trying to sort out the level of protection for medical marijuana users in the workplace because, like criminal standards, the legitimate concern for employers is whether the medical marijuana user truly poses a risk to the safety of themselves or others in the workplace.

B. Evidence of Prior Drug Use

Workers' compensation programs vary in the proof required to provide employers with a presumption of intoxication that would result in a denial of a claim. Claims for workers' compensation benefits can be denied in some states based on evidence of past drug use alone. These states provide employers with a presumption of intoxication based on a positive drug test result.²⁸⁷ Yet in each of these states, the evidence of prior use is not determinative – the employee still has the opportunity to establish that the presumed intoxication did not cause the injury.²⁸⁸

Drug test results may not support a presumption of intoxication due to their limitations, which were outlined above in Part III. A. of this article. One Texas appellate court, for example, upheld the claim of an employee even though he tested positive for a cocaine metabolite.²⁸⁹ That claim was supported by an expert toxicologist who opined that the test only proved previous ingestion of cocaine, not that the employee was "suffering from the effects of cocaine" at the time of the injury.²⁹⁰

Courts in other states similarly have required something more than simple proof of ingestion of an intoxicating substance to establish intoxication. In Georgia, for example, an employer was unable to

285. *Poole*, 750 P.2d at 1005. *See also* *Driscoll v. Great Plains Mktg. Co.*, 322 N.W.2d 478, 479-80 (S.D. 1982); *Lakeside Architectural Metals v. Indus. Comm'n*, 642 N.E.2d 796, 801 (Ill. App. Ct. 1994) (citing *Cnty. of Cook v. Indus. Comm'n*, 532 N.E.2d 280, 283, 285 (Ill. App. Ct. 1988)); *Manthey v. Charles E. Bernick, Inc.*, 306 N.W.2d 544, 547 (Minn. 1981) (citing MINN. STAT. ANN. § 169.121(1) (West 2006)); *NAPA/Gen. Auto. Parts v. Whitcomb*, 481 N.E.2d 1335, 1338-39 (Ind. Ct. App. 1985).

286. *See Driscoll*, 322 N.W.2d at 479-80; *Lakeside Architectural Metals*, 642 N.E.2d at 801 (citing *Cnty. of Cook*, 532 N.E.2d. at 283, 285).

287. *See* LA. REV. STAT. ANN. § 23:1081(5) (2010); UTAH CODE ANN. § 34A-2-302(4)(a)(i)(A) (LexisNexis 2010); GA. CODE ANN. § 34-9-17(b)(2) (2008).

288. *See infra* Appendix A for references to state workers' compensation standards.

289. *Tex. Mut. Ins. Co. v. Havard*, No. 01-07-00268-CV, 2008 LEXIS 1614, at *12-13 (Tex. Ct. App. Mar. 6, 2008).

290. *Id.* at *9, *12.

establish the intoxication of employee who tested positive for cocaine after his injury, without “any evidence that [the employee’s] behavior or conduct was visibly or noticeably affected by the presence of cocaine in his urine”²⁹¹ The court reasoned that “intoxication” means “something more than having merely ingested alcohol or drugs.”²⁹²

The same reasoning has been applied to the consumption of marijuana.²⁹³ For example, a Louisiana court approved the claim of an employee who tested positive for marijuana.²⁹⁴ The court relied on an expert’s opinion that the positive test showed no more than the fact that the employee had ingested marijuana sometime in the past thirty days; consequently he could not offer an opinion as to whether he was impaired at the time of the accident that caused his injury.²⁹⁵

Like Louisiana, North Carolina courts require some indication of impairment beyond positive test results on a drug screen to bar workers’ compensation benefits.²⁹⁶ One such claim was allowed, even though the employee tested positive for cannabinoids and opiates, because the test did not provide any levels of concentration for those substances.²⁹⁷ The court explained that such a test did not address an employee’s impairment and could not be used to show that the employee was impaired at the time of a workplace accident, based on the experts’ opinions that a urine toxicology “does not provide an actual level for cannabinoid concentration” and “does not address impairment and therefore cannot be used to show impairment.”²⁹⁸

These cases demonstrate that even in states allowing for a presumption of intoxication, courts may not grant such a presumption based on a positive drug test result alone. Instead, other evidence on the effects of the prior drug use must be presented to support the employer’s intoxication defense.

291. *Thomas v. Helen’s Roofing Co.*, 404 S.E.2d 331, 333 (Ga. Ct. App. 1991).

292. *Id.* at 332. *See also* *Hatley v. Lewiston Grain Growers, Inc.*, 522 P.2d 482, 484-85 (Idaho 1976) (evidence of drinking alcohol does not establish intoxication); *Baggott v. S. Music, Inc.*, 496 S.E.2d 852, 855 (S.C. 1998) (consumption of less than one beer does not establish intoxication); *Derouen v. Iberia Sugar Coop., Inc.*, 918 So. 2d 1157, 1162 (La. Ct. App. 2005) (no specific level of cocaine reported or expert testimony interpreting test result).

293. *See* *Lakeside Architectural Metals v. Indus. Comm’n.*, 642 N.E.2d 796, 798, 801 (Ill. App. Ct. 1994); *see also* *McCombs v. Workers’ Comp. Appeal Bd.*, No. 268, 2008 LEXIS 430 at *13 (Pa. Commw. Ct. July 3, 2008).

294. *See* *Forrester v. New Orleans Iron Works*, 869 So. 2d 216, 223-24 (La. Ct. App. 2004).

295. *Id.*

296. *See* *Moore v. Sullbark Builders, Inc.*, 680 S.E.2d 732, 735 (N.C. Ct. App. 2009).

297. *See id.*

298. *Id.*

1. Standards for Drug Testing

The results of drug tests are used with caution by courts reviewing claims for workers' compensation benefits.²⁹⁹ To provide the basis for the denial of a claim, many states require that the testing process meet certain standards to ensure the reliability of the results. This protection is often provided even if the state has not adopted standards for any drug testing used by employers, as described above in Part III. A.

Several states have adopted standards to ensure reliability of drug test results when used to determine eligibility for worker's compensation benefits. At least ten states provide specific procedural requirements for a drug test used to bar workers' compensation benefits.³⁰⁰ Some of these standards include specific requirements for a test to be used as evidence of an employee's intoxication for the purposes of a workers' compensation defense.³⁰¹

These states will not provide an employer with the presumption of intoxication defense for a workers' compensation claim if its testing does not meet the state's standards. For example, Alabama specifically allows an employer to require pre-employment drug tests.³⁰²—However, such tests must meet certain standards to ensure the reliability of the test

299. Note that in some states, a positive drug test result does not support disqualification from unemployment compensation benefits. *See* *Stone Forest Indus., Inc. v. Emp't Div.*, 873 P.2d 474, 476 (Or. Ct. App. 1994) (positive drug test result does not disqualify discharged employee from benefits without proof that employee was under the influence of drugs at work); *Weller v. Ariz. Dep't of Econ. Sec.*, 860 P.2d 487, 491-92 (Ariz. Ct. App. 1993) (positive drug test result alone does not show work-related misconduct); *Crain v. Emp't Sec. Dep't Wash.*, 827 P.2d 344, 347 (Wash. Ct. App. 1992) (employee disqualified from unemployment compensation due to failed drug test in conjunction with adverse job performance); *Blake v. Hercules, Inc.*, 356 S.E.2d 453, 455-56 (Va. Ct. App. 1987) (positive drug test result does not prove willful disregard of employer rules). In other states, a positive drug test result proves an intentional violation of drug-free work policies and disqualifies that worker from receiving unemployment compensation. *See* *Farm Fresh Dairy, Inc. v. Blackburn*, 841 P.2d 1150, 1152 (Okla. 1992) (employer not required to show on-the-job impairment when employee failed drug test); *Grace Drilling Co. v. Dir. of Labor*, 790 S.W.2d 907, 908-09 (Ark. Ct. App. 1990) (positive drug test result constitutes misconduct, deliberately violates employer's rules, and disqualifies employee from unemployment benefits); *Clevenger v. Nev. Emp't Sec. Dep't*, 770 P.2d 866, 869 (Nev. 1989) (continual positive drug test results showed disregard of employer rules constituting misconduct in connection with work); *Eugene v. Adm'r, Div. of Emp't Sec., H.D.*, 525 So. 2d 1185, 1187 (La. Ct. App. 1988) (positive drug test result sufficient to deny benefits for misconduct connected with employment); *Overstreet v. Ill. Dep't of Emp't Sec.*, 522 N.E.2d 185, 187 (Ill. App. Ct. 1988) (positive tests for cocaine constituted deliberate violation of policy constituting disqualifying misconduct).

300. Georgia, Florida, Louisiana, Tennessee, Alabama, North Dakota, Tennessee, Utah, Colorado, and Ohio. *See infra* notes 305-08 and accompanying text.

301. *See infra* notes 305-08 and accompanying text.

302. *See* ALA. CODE. § 25-5-335(a)(1) (2007).

results, including an opportunity for the applicant to present information that would explain a positive test result, and the use of gas chromatography/mass spectrometry confirmatory testing.³⁰³ Similarly, in both Georgia and Florida, a positive drug test result supporting the employer's intoxication defense can only be based on a drug test that meets specific procedural requirements, including a confirmatory test by an approved laboratory.³⁰⁴ Both Georgia and Florida courts have made it clear that the presumption of intoxication only applies if the testing was done in compliance with the statutory procedural requirements.³⁰⁵

Similarly, Louisiana's presumption of causation due to intoxication states that an employer can only rely on a test for use of a controlled substance that meets certain standards to protect the accuracy of the results, including an "opportunity for the employee to provide notification of any information which he considers relevant to the test, including identification of currently or recently used prescription or nonprescription drugs, or other relevant medical information" and the requirement of confirmatory testing.³⁰⁶

With respect to drug testing, employers have been advised to follow the U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA) guidelines.³⁰⁷ Private employers are not required to follow the Mandatory Guidelines for Federal Workplace Drug Testing (also called SAMHSA's guidelines).³⁰⁸ Virginia, Colorado and Tennessee have referenced these guidelines in their limitations on the intoxication defense, requiring that such drug testing be conducted at SAMHSA-certified laboratories and under review of a medical review officer.³⁰⁹ Of importance to medical marijuana users, Tennessee's statute specifically provides that an employee can contest or explain a positive result to a MRO.³¹⁰

303. See *id.* at § 25-5-335(a)(1), (c), (f).

304. See GA. CODE ANN. § 34-9-415(a), (d)(8), (e)(1)(A) (Supp. 2011); FLA. STAT. ANN. § 440.09(7)(d) (West 2009). See also *Jones v. Harold Arnold's Century Buick, Pontiac*, 656 S.E.2d 772, 774 (S.C. Ct. App. 2008) (claim denied based on positive test for cocaine).

305. See *Ga. Self-Insurers Guar. Trust Fund v. Thomas*, 501 S.E.2d 818, 819 (Ga. 1998); *Temp. Labor Source v. E.H.*, 765 So. 2d 757, 759 (Fla. Dist. Ct. App. 2000); *Wright v. DSK Group*, 821 So. 2d 455, 456 (Fla. Dist. Ct. App. 2002) (drug test given nine days after accident).

306. LA. REV. STAT. ANN. § 23:1081(8)-(9) (2010).

307. Gerald Calvasina, *Human Resource Management Policy and Practice Issues and Medical Marijuana*, 6 J. MGMT. & MKTG. RES. 1 (2011).

308. *Id.*

309. See VA. CODE ANN. § 65.2-306(B) (2007); COLO. REV. STAT. ANN. § 8-42-112.5(1) (West 2003); TENN. COMP. R. & REGS. 0800-02-12-.08(1), (4) (2011).

310. TENN. COMP. R. & REGS. 0800-02-12-.10(3) (2011).

In Tennessee as well as Alabama, New Mexico, and North Dakota, an intoxication defense is allowed based on a drug test that meets standards adopted for drug testing by the U.S. Department of Transportation.³¹¹ If a test does not conform to these requirements, an employer cannot use the results to challenge an employee's claim for benefits.³¹²

Some states limit the reliance on a drug test to support an intoxication defense without specific reference to federal guidelines. The Ohio and Kansas workers' compensation statutes only allow a presumption of influence under a controlled substance if the test is administered under certain conditions, such as when the employer has reasonable cause to suspect that the employee is under the influence of a controlled substance, or at the request of a police officer or licensed physician.³¹³ The Ohio statute even describes the facts which would support reasonable cause to conduct a test on an employee, including slurred speech, dilated pupils, changes in affect, dynamic mood swings, a pattern of abnormal conduct, erratic or aberrant behavior, or deteriorating work performance.³¹⁴ Similar to these statutory restrictions, several states' courts have refused to apply the intoxication defense to a workers' compensation claim if the test results suggesting intoxication cannot be validated.³¹⁵

These standards demonstrate the importance attached to accurate testing and medical review in the workers' compensation realm. If testing does not meet these standards, then employers cannot rely on a positive drug test to defend against a claim for workers' compensation. It is noteworthy that even in states that do not regulate drug testing of employees in general, the intoxication defense for workers' compensation claims is only available if the drug testing relied upon meets these standards.

311. See TENN. COMP. R. & REGS. R. 0800-02-12-.08(4) (2011); ALA. CODE § 25-5-51 (2007); *Smith v. N.D. Workers Comp. Bureau*, 608 N.W.2d 250, 251-52 (N.D. 2000); N.M. STAT. ANN. § 52-1-12.1 (West 2006).

312. *Nelson v. Homier Distrib. Co.*, 222 P.3d 690, 697 (N.M. Ct. App. 2009).

313. See OHIO REV. CODE ANN. § 4123.54(B)-(C) (West 2008); KAN. STAT. ANN. § 44-501(b)(3)(A)-(F) (West Supp. 2011).

314. OHIO REV. CODE ANN. § 4123.54(C)(2) (West 2008).

315. See *Parent v. Tetreault*, 242 A.2d 67, 68 (N.H. 1968); *Worthington v. Dep't of Agric. State Horse Racing Comm'n*, 514 A.2d 311, 313 (Pa. Commw. Ct. 1986); *Erisco Indus. v. Workers' Comp. Appeal Bd.*, 955 A.2d 1065, 1067 (Pa. Commw. Ct. 2008).

2. Evidence to Establish Significance of Drug Test Results

Many states also limit an employer's ability to rely solely on drug tests to support a presumption of intoxication in a workers' compensation claim.³¹⁶ Instead, the employer will need to present other evidence that helps establish that the employee's intoxication did in fact result in his or her injury.³¹⁷

Most states will not deny a workers' compensation claim based on a positive drug test alone. Instead, an employer will need to combine a positive drug test result with other evidence to establish the effects of the drug use on the employee's abilities. For example, a Nebraska court upheld the denial of benefits for an employee whose test revealed 183 nanograms of marijuana metabolites after his injury.³¹⁸ That court relied heavily on medical testimony that his marijuana use would have caused changes in his "perception, defects in his judgment, and deterioration of his motor skills," as well as "alteration of mood, sensory perception, cognition, sensorium, motor incoordination, and self-perception," and would delay his "ability to react to or understand danger when operating" the machinery being used when he was injured, all with a "reasonable degree of medical certainty."³¹⁹

A lack of evidence of the actual effects of a controlled substance can defeat an employer's intoxication defense. For example, an Oklahoma appellate court explained that "the legislature intended that the question of impairment to be decided 'objectively' on the basis of *all* the surrounding circumstances and evidence bearing on an employee's condition and ability to work, including lay testimony."³²⁰ That court upheld the employee's claim, despite a positive drug test, where the employee testified that he did not ingest any drugs on the day of the injury, he was not impaired or under the influence, he was not taken off duty during the three to four hours of work prior to the injury, and there was an alternative explanation for the accident.³²¹

Like Oklahoma, South Dakota courts typically look beyond basic drug test results. For example, a court denied a claim of an employee

316. See, e.g., *Bayard Drilling v. Martin*, 986 P.2d 530, 531 (Okla. Civ. App. 1999).

317. See, e.g., *Banks v. Midwest Padding, L.L.C.*, No. A-06-074, 2006 LEXIS 154, at *10 (Neb. Ct. App. Aug. 29, 2006).

318. *Id.* at *4.

319. *Id.* at *4-5.

320. *Bayard Drilling*, 986 P.2d at 531.

321. *Id.* at 532. *But see* *Newquist v. Hall Bldg. Prods., Inc.*, 100 P.3d 1060, 1063 (Okla. Civ. App. 2004) (claim denied based on the claimant's admission of past marijuana use).

who tested positive for marijuana and methamphetamine in part based on extensive expert testimony that impairment from smoking marijuana has been shown to exist for as long as forty-eight hours.³²² Also, evidence that marijuana affects the mental thought processes of the user, resulting in mental dullness and lack of attention to detail in the post-euphoric phase, which potentially affects driving skills.³²³ Yet even the employer's expert agreed in this case that "impairment cannot be determined solely from a positive urine drug test," and instead based his opinion of impairment on "the known pharmacology of methamphetamine and marijuana, their known interactions and the effects they produce as well as the mechanics of [the employee's] accident, all combined with the positive test result."³²⁴

A second South Dakota court followed similar reasoning and upheld the claim of an employee who had admittedly smoked a significant amount of marijuana about twelve hours before his injury.³²⁵ This claim was allowed despite the expert's testimony that the "impairment effects" period can last from twenty-four to forty-eight hours after use, and can potentially cause "diminishment of sequential thinking abilities, dullness in thought processing and activity, hand eye coordination, sensory skills, slowing cognitive processing and reaction time during complex tasks."³²⁶ These effects of marijuana use were not necessarily related to the injury since an accident reconstructionist expert could not say that the accident would have been prevented if the employee would have reacted quicker.³²⁷ Given this combination of testimony, the employer was unable to prove that the employee's intoxication proximately caused the accident and injury.³²⁸

Along the same line of reasoning, a claim in Oklahoma was denied because "all the surrounding circumstances and evidence . . . support[ed] the denial of benefits on the ground of drug impairment."³²⁹ That court determined that a compensation claim could be denied based on impairment "'objectively' on the basis of *all* the surrounding circumstances and evidence bearing on an employee's condition and

322. Goebel v. Warner Transp., 612 N.W.2d 18, 23 (S.D. 2000).

323. *Id.*

324. *Id.* at 24.

325. VanSteenwyk v. Baumgartner Trees & Landscaping, 731 N.W.2d 214, 221, 223 (S.D. 2007).

326. *Id.*

327. *Id.* at 221.

328. *Id.* at 222.

329. Gilley v. Cent. Distributions, Inc., 993 P.2d 140, 142 (Okla. Civ. App. 1999).

ability to work, including lay testimony.”³³⁰

These cases demonstrate the importance of individualized analysis to determine whether an employee who tests positive on a drug test was actually impaired or intoxicated at the time of the injury for which he or she seeks compensation. At a minimum, employers are required to provide expert testimony that establishes a significant link between a positive drug test and the harm that occurred.

3. Drug Test Levels Should Not Be Determinative

Some state statutes include specific levels of drug and alcohol tests that will support a presumption of intoxication. This approach demonstrates the sometimes draconian results when strictly adhering to drug test results without considering the surrounding circumstances.

Kansas exemplifies the test-based approach of some workers' compensation programs. There, an employee is conclusively presumed to be impaired if a confirmatory test establishes that the employee has a level for marijuana metabolite at or above 15 ng/ml.³³¹ Kansas courts rely heavily on testing that shows the presence of drugs or alcohol in denying a workers' compensation claim based on the intoxication defense.

For example, a Kansas claimant who tested positive for marijuana was unsuccessful in overcoming a presumption of intoxication, despite a lack of credible evidence that he was acting erratically or unusually prior to his injury.³³² The employer had presented testimony from an addiction counselor and a toxicologist showing that “a person whose judgment and decision-making skills are impaired by marijuana would not display the typical overt signs of impairment.”³³³ That court explained that “just because an employee does not display any erratic or unusual behavior does not mean that the employee's presumptive impairment would not have caused or contributed to the accident.”³³⁴

Like Kansas, a North Dakota court relied on the levels shown in a drug test given after an employee's injury to maintain the denial of the claim based on intoxication.³³⁵ Based on those levels, the court rejected

330. *Id.* at 141.

331. KAN. STAT ANN. § 44-501(b)(1)(C) (West Supp. 2011).

332. *Wiehe v. Kissick Constr. Co.*, 232 P.3d 866, 879-80 (Kan. Ct. App. 2010).

333. *Id.* at 876.

334. *Id.*

335. *See Smith v. North Dakota Workers Comp. Bureau*, 608 N.W.2d 250, 252, 254 (N.D. 2000).

the employee's explanation that using old prescription medications caused him to test positive because the levels were high for that type of use.³³⁶

In line with Kansas and North Dakota, Ohio's statute specifically states that an injured employee is presumed to have been under the influence of a controlled substance if a drug test reveals specific levels of an illegal substance.³³⁷ For marijuana, the presumption applies if the employee's gas chromatography mass spectrometry test shows cannabinoids at a level of more than 15 ng/ml of urine.³³⁸

In contrast to these states, courts in Arkansas have become less rigid in their reliance on drug test results in reviewing workers' compensation claims. In Arkansas, the presumption was applied against an employee where two experts testified that "[c]annabinoids detected in the first urine specimen were confirmed by gas chromatography-mass spectrometry showing a level greater than 200 ng/ml carboxy acid THC, the principle metabolite of marijuana."³³⁹ Like the statutory standard used in Alabama, the expert relied on the cut-off level of 15 ng/ml used to confirm positive screening tests in federal programs as well as the lower cut off of 10 ng/ml used in many private programs.³⁴⁰ Another Arkansas appellate court upheld the denial of a workers' claim by an employee who tested positive for THC metabolites, relying on the statutory presumption, despite expert testimony that the presence of metabolites could not be linked conclusively with impairment.³⁴¹

Yet just five years later, another Arkansas appellate court upheld a claim awarded in favor of an admitted marijuana user who tested positive, based on expert testimony that the positive results may have been caused by medications, and testimony of coworkers that the injured employee did not appear to be under the influence of marijuana on the day of the injury.³⁴²

Like Arkansas, a claimant in Utah may not be denied based on the level of drugs found in their system. Utah provides that if the employee has a prescription for the controlled substance, then the employer will

336. *Id.* at 252.

337. OH. REV. CODE ANN. § 4123.54(B)(1)(b)-(c) (West 2011).

338. *Id.*

339. *Weaver v. Whitaker Furniture Co.*, 935 S.W.2d 584, 586 (Ark. Ct. App. 1996).

340. *Id.* at 586. *See also* *Wood v. West Tree Serv.*, 14 S.W.3d 883, 885 (Ark. Ct. App. 2000) (positive test for metabolites enough to create presumption supporting denial of claim).

341. *See* *Brown v. Alabama Elec. Co.*, 959 S.W.2d 753, 755-56 (Ark. Ct. App. 1998); *see also* *Graham v. Turnage Emp't Grp.*, 960 S.W.2d 453, 455-56 (Ark. Ct. App. 1998) (claim denied despite expert testimony about lack of link between positive drug test and impairment).

342. *See* *Epoxy Prods., Inc., v. Padgett*, 138 S.W.3d 118, 119-20 (Ark. Ct. App. 2003).

not be entitled to the presumption of intoxication unless “the amount in the employee’s system is consistent with the employee using the controlled substance intentionally: (i) in excess of prescribed therapeutic amounts; or (ii) in an otherwise abusive manner.”³⁴³

These cases illustrate the limited role of drug test results alone in establishing that an employee was intoxicated at work. Even in these states where a presumption of intoxication may be based on test results alone, an employee can still rebut that presumption and establish that they were not intoxicated at the time of the injury or that intoxication did not play a role in the occurrence of the injury.³⁴⁴

C. Surrounding Circumstances

In many states, the circumstances surrounding an employee’s injury may be used to support or deny a claim under the intoxication defense. Circumstances can include the potential causes of the injury aside from intoxication, observations of others at the workplace, and the ability of the employee to complete work duties at the time of alleged intoxication. These circumstances may undermine a presumption of intoxication that would support the denial of a claim, or may be sufficient to overcome a presumption of intoxication to establish that the intoxication was not the cause of the injury at work.

1. Establishing a Presumption

Surrounding circumstances have sometimes been enough to establish intoxication despite the absence of drug test results that would otherwise establish intoxication. For example, a Kansas court considered evidence that the actions of the injured employee leading to the accident demonstrated an “extreme lack of judgment,” and testimony linking that lack of judgment to his marijuana use, to support the denial of the claim.³⁴⁵ This conclusion was reached despite testimony that the effects of marijuana used the previous day would not last long enough to affect the employee’s actions, and an expert’s opinion that there is “not a good correlation between marijuana concentrations in the blood and the [user’s] impairment level.”³⁴⁶

343. UTAH CODE ANN. § 34A-2-302(4)(a)(i)(B) (LexisNexis 2011).

344. See *infra* Part V.C.2.

345. *Wiehe v. Kissick Const. Co.*, 232 P.3d 866, 877, 880 (Kan. Ct. App. 2010).

346. *Id.* at 879.

Like this Kansas court's reasoning, a South Dakota court denied the claim of an employee who tested positive for methamphetamine and marijuana in part based on the "mechanics of the accident," which according to an expert toxicologist showed that the circumstances of the accident were consistent with others he had studied where methamphetamine use was a factor.³⁴⁷ An earlier South Dakota court denied a claim of an employee who had consumed five to six beers before an automobile accident, based on similar testimony of the investigating sheriff that he was "one hundred times more likely to be involved in an accident than if he had nothing to drink."³⁴⁸

In line with the reasoning of these Kansas and South Dakota courts, a Wyoming court denied benefits for an employee whose blood had a significant alcohol level after his death.³⁴⁹ The reviewing court relied on the opinion of the officer who came to the scene of the employee's accident that alcohol played a "major part" in the accident, based on the officer's experience with accidents, the road conditions, and the lack of evidence of evasive actions taken to avoid an object in the road.³⁵⁰

Even without a positive drug test, a presumption of intoxication may be based on the observations of others or the circumstances surrounding the injury. For example, an Indiana claim was denied based on testimony of coworkers and family as to the impairing effects of a prescription drug on a deceased employee.³⁵¹ Claims for workers' compensation benefits have similarly been denied based on definitions of intoxication from contract interpretation cases. For example, an Iowa court referenced the definition of "intoxication" from an insurance policy exclusion case, which had defined "under the influence of alcohol" as occurring when one or more of the following is true:

- (1) the person's reason or mental ability has been affected;
- (2) the person's judgment is impaired;
- (3) the person's emotions are visibly excited; and
- (4) the person has, to any extent, lost control of bodily actions or

347. Goebel v. Warner Transp., 612 N.W.2d 18, 24-25, 28 (S.D. 2000).

348. Driscoll v. Great Plains Mktg. Co., 322 N.W.2d 478, 478-80 (S.D. 1982).

349. Johnson v. State ex rel. Workers' Comp. Div., 911 P.2d 1054, 1062 (Wyo. 1996).

350. *Id.* at 1061.

351. Jones ex rel. Jones v. Pillow Express Delivery, Inc., 908 N.E.2d 1211, 1212-14 (Ind. Ct. App. 2009).

motions.³⁵²

Using the definition above and the expert testimony from a toxicologist, an Iowa court denied benefits to an employee with a blood alcohol level of .094.³⁵³ Specifically, the toxicologist testified that the employee's "ability to perform his job would have been impaired by the level of alcohol in his blood."³⁵⁴ The witness further testified that this level would impair his "reaction time, his visual acuity, his actual ability to see clearly and perceive the world about him."³⁵⁵

The aforementioned cases demonstrate that even if a positive drug test does not conclusively establish intoxication, other circumstances may establish the intoxication presumption. Courts often look to the employee's behavior and other surrounding circumstances to determine whether they were under the influence at the time of the injury, even if the test results are inconclusive.

2. Overcoming a Presumption of Intoxication

States which allow an employer to defend a workers' compensation claim based on the injured employee's intoxication also allow that employee to rebut the employer's assertion by demonstrating that he or she was not intoxicated or that the alleged intoxication did not cause the injury.³⁵⁶ This consideration of the observations of others and the person's ability to perform their work prior to the injury demonstrates an attention to individual circumstances surrounding the injury, rather than simply denying any claim made by an employee who tests positive on a drug test.

Evidence of intoxication, such as a positive drug test, may be sufficient to deny a claim if the injured employee fails to offer evidence to rebut the presumption of intoxication that arises from such a test result. For example, one Texas court held that a positive test for a high level of marijuana metabolites combined with an admission of past marijuana use was sufficient to sustain an intoxication defense.³⁵⁷ The employer's expert had expressed his general opinion that a drug test

352. *Garcia vs. Naylor Concrete Co.*, 650 N.W.2d 87, 90 (Iowa 2002) (citing *Benavides v. J.C. Penney Life Ins. Co.*, 539 N.W.2d 352, 355 (Iowa 1995)).

353. *Garcia*, 650 N.W.2d at 90-91.

354. *Id.* at 90.

355. *Id.*

356. *See infra* Appendix A (listing a summary of state workers' compensation programs).

357. *Adkins v. Tex. Mut. Ins. Co.*, No. 04-07-00750-CV, 2008 LEXIS 7696, at *3, *6 (Tex. Ct. App. Oct. 8, 2008).

“does not tell how impaired a person is,” however in the case at hand, he found the level of marijuana metabolites compelling evidence of impairment.³⁵⁸ His opinion regarding impairment in this particular case was sufficient, despite the absence of any particular level or test defined by statute that would establish intoxication, making the standard “relatively subjective.”³⁵⁹

Many states provide an employee with the opportunity to overcome a presumption of intoxication based on evidence of their sober behavior.³⁶⁰ In most areas, an employee can succeed in a claim if he or she can prove that he or she was not in fact intoxicated or that intoxication was not the cause of the accident. For example, Colorado requires clear and convincing evidence to overcome the presumption that the injury was due to the employee’s intoxication.³⁶¹ If a necessary risk or danger of employment caused the injury in whole or at least in part, then many states will not bar a claim based on a positive drug test alone.³⁶²

a. Observed Behavior

Many workers’ compensation claimants who test positive for illegal drug use have been able to receive benefits by overcoming the presumption of intoxication based on evidence from coworkers and supervisors that the employee did not appear to be under the influence of a controlled substance just prior to the injury.³⁶³ For example, numerous

358. *Id.* at *4.

359. *Id.* at *5. *See also* Tex. Mut. Ins. Co. v. Havard, No. 01-07-00268-CV, 2008 LEXIS 1614, at *7 (Tex. Ct. App. Mar. 6, 2008) (citing *Am. Interstate Ins. Co. v. Hinson*, 172 S.W.3d 108, 115 (Tex. Ct. App. 2005)).

360. *See* ARK. CODE ANN. 11-9-102(4)(B)(iv)(d) (2005); COL. REV. STAT. ANN. § 8-42-112.5(1) (West 2003); FLA. STAT. ANN. 440.09(7)(b) (West 2009); LA. REV. STAT. ANN. § 23:1081(12) (2010); NEV. REV. STAT. ANN. § 616C.230(1)(c) (West Supp. 2011); TENN. CODE ANN. § 50-6-110(c)(1) (2008); UTAH CODE ANN. § 34A-2-302(4)(b)(ii) (LexisNexis 2011); VA. CODE ANN. § 65.2-306(B) (2007). *See also* *Evans v. Hara’s, Inc.*, 849 P.2d 934, 939 (Idaho 1993); *Nalley v. Consol. Freightways, Inc.*, 282 N.W.2d 47, 50 (Neb. 1979); *Tlumac v. High Bridge Stone*, 902 A.2d 222, 225 (N.J. 2006); *Willey v. Williamson Produce*, 562 S.E.2d 1, 5 (N.C. Ct. App. 2002).

361. COL. REV. STAT. ANN. § 8-42-112.5(1) (West 2003).

362. *See, e.g.*, *Grammatico v. Indus. Comm’n*, 90 P.3d 211, 216 (Ariz. Ct. App. 2004), *aff’d*, 117 P.3d 786 (Ariz. 2005).

363. *See* *Sys. Contracting Corp. v. Reeves*, 151 S.W.3d 18, 20-21 (Ark. Ct. App. 2004); *Ark. Elec. Coop. v. Ramsey*, 190 S.W.3d 287, 289-92 (Ark. Ct. App. 2004); *Ward v. Hickory Springs Mfg. Co.*, 248 S.W.3d 482, 486 (Ark. Ct. App. 2007); *Stewart v. Oliver B. Cannon & Son, Inc.*, 551 A.2d 818, 822 (Del. Super. Ct. 1988); *Whiting v. Advance Insulation Servs.*, 738 So. 2d 685, 687 (La. Ct. App. 1999); *Moore v. Sullbark Builders, Inc.*, 680 S.E.2d 732, 735-36 (N.C. Ct. App. 2009)

Louisiana courts have upheld claims of employees who tested positive for marijuana at a significant level, based on consistent testimony that they did not appear to be impaired prior to the accident.³⁶⁴ One Louisiana court even relied in part on general testimony that the injured employee was a “responsible, reliable worker.”³⁶⁵

Like the Louisiana courts, Nebraska courts have refused to deny employees’ claims based only on positive drug test results. For example, an employee received benefits even though he tested positive for methamphetamine, amphetamines, and marijuana, based on the court’s opinion that “laboratory tests and physicians’ opinions are not always sufficient to prove intoxication.”³⁶⁶ Two experts’ opinions that the claimant’s test levels demonstrated that he was under the influence at the time of injury were insufficient basis to deny the claim.³⁶⁷ Instead, the court gave heavy consideration to the testimony of his coworkers regarding his lack of abnormal behavior prior to the injury, and the lack of any evidence “of objectively observable behavior or any other observance of plaintiff’s physical body condition.”³⁶⁸

A combination of observations from others and the ability to perform job duties has worked in favor of employees’ workers’ benefits

(finding no credible evidence that employee was under the influence on the day of the injury).

364. See *Burrow v. Delta Container Corp.*, 923 So. 2d 158, 160-62 (La. Ct. App. 2005); see also *Buxton v. Iowa Police Dep’t*, 952 So. 2d 922, 928-29 (La. Ct. App. 2007) (holding that testimony of coworkers and supervisor supported police officer’s claim that he was not impaired); *Boise Cascade Corp. v. Dean*, 767 So. 2d 76, 80 (La. Ct. App. 2000) (holding that employee satisfied his burden where numerous co-workers spoke or interacted with the employee on the day of the accident, no one found anything unusual about his behavior or thought he might be intoxicated, and expert testimony established length of time of real impairment from smoking marijuana as somewhere between five and six hours); *Whiting*, 738 So. 2d at 691 (affirming trial court decision that employer failed to establish intoxication defense where witnesses unanimously agreed that employee was not intoxicated); *Sweeden v. Hunting Tubular Threading, Inc.*, 806 So. 2d 728, 729-30 (La. Ct. App. 2001) (holding employee satisfied his burden with his own testimony that he smoked marijuana two days before the accident, but not on the day of the accident, and by a supervisor’s testimony that he did not appear to be impaired or under the influence at the time); *Bernard v. Cox Commc’n., Inc.*, 815 So. 2d 259, 266 (La. Ct. App. 2002) (holding that a lack of testimony that employee appeared impaired overcame presumption of intoxication based on testing positive for marijuana); *Gradney v. D.B.L. Drilling & Prod. Servs.*, 702 So. 2d 872, 874 (La. Ct. App. 1997) (finding employee’s witnesses who saw him before and after accident helped him overcome presumption of intoxication).

365. *Forrester v. New Orleans Iron Works*, 869 So. 2d 216, 223 (La. Ct. App. 2004).

366. *Shriver v. Ervin Constr. Co.*, No. A-01-784, 2002 LEXIS 144, at *2, *9-10 (Neb. Ct. App. May 14, 2002).

367. *Shriver*, 2002 Neb. App. LEXIS 144, at *4.

368. *Id.* at *9. See also *Tex. Mut. Ins. Co. v. Havard*, No. 01-07-00268-CV, 2008 Tex. App. LEXIS 1614, at *13 (Mar. 6, 2008) (holding that employee defeated employer’s intoxication defense where coworker testified that employee did not appear to be intoxicated, despite testing positive for cocaine).

claims. For example, a Nevada court upheld the claim of an injured employee, despite the presence of 747 ng/ml of marijuana metabolites, based on a coworker's testimony that the claimant "did not appear to be intoxicated, impaired, or under the influence of a controlled substance prior to the accident," and had "performed his job well and acted normally" that day.³⁶⁹ This testimony was sufficient to overcome the opinion of an expert that metabolite levels "in excess of 100 ng/ml in urine, more likely than not, correlate to the presence of active THC in blood, which could cause impairment."³⁷⁰

In line with this Nevada decision, the Tennessee Supreme Court upheld the claim of an employee who tested positive for alcohol, methamphetamine and marijuana, despite expert testimony that those substances would have affected the employee's balance, dexterity, motor skills reaction time, judgment and perception.³⁷¹ The claim was supported by testimony of the employee's supervisor and a coworker that they had not noticed any problems with the employee's work performance nor any behavior indicating that he was intoxicated or under the influence of drugs.³⁷²

These decisions demonstrate the importance of direct observation in determining whether an employee is under the influence of a controlled substance at work. At least in the workers' compensation context, a claim generally will not be denied if supervisors and coworkers did not observe unusual behavior demonstrating that the injured employee was affected by the use of a controlled substance prior to the injury.

b. Ability to Work

Like the observations of coworkers, evidence that the injured employee was performing his or her job duties adequately can defeat a defense that intoxication caused the injury.³⁷³ For example, the New

369. *Desert Valley Constr. v. Hurley*, 96 P.3d 739, 740-41 (Nev. 2004). *See also* *Constr. Indus. Workers' Comp. Grp. v. Chalue*, 74 P.3d 595, 598 (Nev. 2003) (finding claimant defeated presumption of intoxication where claimant's and foreman's testimony, along with hospital records, supported that claimant did not appear intoxicated).

370. *Desert Valley Constr.*, 96 P.3d at 740.

371. *Brewer v. Hartford*, No. W2005-01147-WC-R3-CV, 2006 LEXIS 763, at *4-6 (Tenn. Aug. 30, 2006), *aff'd*, 2006 LEXIS 762 (Tenn. Aug. 30, 2006).

372. *Brewer*, 2006 LEXIS 763, at *3-4. *See also* *Campbell v. PML, Inc.*, No. W2008-01539-WC-R3-WC, 2009 LEXIS 68, at *4 (Tenn. May 6, 2009) (finding observations of supervisor and coworker supported conclusion that he was not impaired at the time the injury occurred).

373. *See* *Olson v. Felix*, 146 N.W.2d 866, 867, 869 (Minn. 1966) (finding employee's intoxication was not the proximate cause of his own death where decedent had just completed a good grading job and exercised sound judgment within the scope of his employment prior to death);

Mexico Supreme Court upheld the claim of an employee, even though his blood alcohol level was above the limit for criminal liability if driving.³⁷⁴ The employee had been driving and walking on top of a garbage truck as part of his job duties without incident for at least an hour before the accident, and his coworkers “did not notice a problem” with his demeanor.³⁷⁵

The New Mexico Supreme Court has also determined that an employee’s injury was not occasioned by his intoxication where he had completed numerous work duties just prior to the accident, despite testing positive for a “high amount” of cocaine and a blood alcohol level of .079.³⁷⁶ Along this same line of reasoning, an employee supported his claim with evidence that he did not appear intoxicated to his foreman and had worked successfully for a long period prior to his accident.³⁷⁷ This testimony was enough to overcome the employee’s failure to present an expert opinion to refute the employer’s expert opinion that he was intoxicated based on the presence of 264 ng/ml of marijuana metabolites in his urine.³⁷⁸

Like New Mexico, Virginia courts have upheld a claim even though the injured employee had tested positive for alcohol following the injury.³⁷⁹ That court relied on the employee’s performance of his work duties for approximately six hours prior to the accident, including “activities which required significant hand-eye coordination and dexterity,” appropriately communicating with co-workers and supervisors, and neat and legible completion of tally sheet entries.³⁸⁰

These decisions demonstrate that workers’ compensation claimants may be successful despite allegations that they were intoxicated, if they

see also Manthey v. Charles E. Bernick, Inc., 306 N.W.2d 544, 547 (Minn. 1981) (holding that employee’s intoxication did not proximately cause injury and death resulting from accident where employee showed no outward signs of intoxication as he performed work prior to accident).

374. Villa v. City of Las Cruces, 214 P.3d 1108, 1110 (N.M. Ct. App. 2010), *cert. denied*, 243 P.3d 753 (N.M. 2010).

375. *Id.* at 1111.

376. Nelson v. Homier Distrib. Co., 222 P.3d 690, 696-97 (N.M. Ct. App. 2009). *See also* Chester Scaffolding, Inc. v. Hanley, 529 N.E.2d 1278, 1280 (Ohio Ct. App. 1987) (finding that employee’s act of climbing 200 feet of scaffolding prior to injury showed lack of intoxication); Tex. Mut. Ins. Co. v. Havard, No. 01-07-00268-CV, 2008 LEXIS 1614, at *9-10 (Tex. Ct. App. Mar. 6, 2008) (holding employee rebutted presumption of intoxication where employee had driven over thirty miles without incident prior to injury).

377. Am. Interstate Ins. Co. v. Hinson, 172 S.W.3d 108, 112 (Tex. Ct. App. 2005).

378. *See id.* at 112, 120-21.

379. *See* Ball Lumber Co. v. Jones, No. 1716-94-2, 1995 LEXIS 375, at *6-7 (Va. Ct. App. Apr. 18, 1995).

380. *Id.* at *6. *See also* Foster v. Smithfield Packing Co., 79 O.W.C. 184 (Va. Workers’ Comp. Comm’n Nov. 20, 2000) (positive test result alone does not prove intoxication).

can produce evidence that they were capable of performing their job duties and generally acting sober just prior to the time of the injury. Conversely, if such subjective evidence supports the employer's position that the employee was intoxicated at the relevant time, then the employee likely will not recover workers' compensation benefits.

Increasingly, courts will not deny workers' compensation benefits based on a positive drug test result alone.³⁸¹ Instead, expert testimony must establish the significance of that test result with respect to the person's ability to safely perform their work.³⁸² In addition, workers' compensation claimants are given an opportunity to establish that they were able to perform their duties and were not impaired at the time of their injury in order to defeat the employer's intoxication defense.³⁸³ The same type of analysis should be applied to medical marijuana users in the workplace.

VI. CONCLUSION

Sixteen states allow the medical use of marijuana, while many more are considering the same type of legislation.³⁸⁴ Yet these states have provided little or no protection for medical marijuana users in the workplace. Employers remain free in most medical marijuana states to discharge or refuse to hire a medical marijuana user regardless of whether their use would or has affected their ability to perform their work.³⁸⁵

For years, employers have relied heavily on urinalysis drug testing to make significant decisions about applicants and current employees.³⁸⁶ These test results may tell an employer whether the tested person has ever used a controlled substance in the past. Employers have justified relying on these test results in part because they demonstrated the person's illegal past behavior, but that justification no longer applies to medical marijuana users in states that now allow their use for medical

381. *E.g.*, Nathaniel R. Boulton, *Establishing Causation in Iowa Workers' Compensation Law: An Analysis of Common Disputes Over the Compensability of Certain Injuries*, 59 Drake L. Rev. 463, 502 (2011) ("According to the statute, the intoxication defense is not proven by showing the employee was merely intoxicated at the time of the injury . . .").

382. *See, e.g.*, *Ball Lumber Co.*, 1995 LEXIS 375, at *6-7.

383. *See, e.g.*, *Am. Interstate Ins. Co. v. Hinson*, 172 S.W.3d 108, 119-20 (Tex. Ct. App. 2005) (finding a jury could reasonably conclude that claimant did not feel impaired and his testimony was sufficient to overcome expert testimony regarding test results).

384. *See* sources cited *supra* note 3 and accompanying text.

385. *See supra* Part I.

386. *See supra* Part III.

purposes.

Even if no illegal behavior is indicated, employers may still believe that a positive drug test result provides some relevant information about the employee or applicant. Yet years of research established that a positive test result tells the employer nothing about the person's level of impairment or intoxication at the time of the test.³⁸⁷ If a drug test does not provide relevant information about the employee's abilities, what should employers do to protect against the effects of drug use by its employees?

Employers and courts reviewing claims by medical marijuana users should look to the guidance that already exists on the question of intoxication. Criminal courts in some states will not convict based on the presence of metabolites detected by a drug test alone.³⁸⁸ Instead, the person must exhibit some other signs of being affected by their use of a controlled substance to be guilty of driving a vehicle in violation of criminal laws which prohibit driving under the influence or while intoxicated.³⁸⁹ Such an effect can be established by the person's appearance and/or their behavior. The approach of criminal courts is relevant to the employment setting since in both circumstances, the goal is the prevention of harmful behavior by the person who has ingested a controlled substance.

In addition to the criminal prosecutions, courts have significant experience in reviewing workers' compensation claims of persons who allegedly were intoxicated at the time of their workplace injury. Instead of simply denying any claim filed by a person who tested positive on a drug screen, courts look carefully at the entire body of evidence regarding the person's actions at work.³⁹⁰ If the person did not act unusually, and was able to perform the duties of his or her position, then the workers' compensation claim is not denied.³⁹¹ The same reasoning should apply to medical marijuana users – if they are able to act appropriately and perform their job duties, then an employer should not discharge or reject them. Workers' compensation analysis is applicable to the concerns of employers of medical marijuana users since, in both instances, employers are seeking to avoid liability where harm is caused by an employee's intoxication or impairment.

In both criminal prosecutions and workers' compensation claims, it

387. See Rappold, *supra* note 93, at 563-64.

388. See discussion *supra* Part IV.A.

389. See *supra* text accompanying notes 252-254.

390. See *supra* text accompanying note 279.

391. See *supra* note 371 and accompanying text.

must be established that the marijuana user was actually affected by their use of a controlled substance at the relevant time.³⁹² The same type of analysis should precede any decisions about the hiring or tenure of a medical marijuana user. If the evidence establishes that they can perform the duties of the position regardless of their off-duty use of marijuana, then they should not be discharged or rejected. If the person is truly affected by their marijuana use while at work, then the employer can refuse to hire or discharge them. Such an approach will address employers' concerns about safety and property loss. At the same time, a medical marijuana user will not lose an employment opportunity based on their use of marijuana for medical purposes, which their state legislature has determined is worthy of protection against criminal prosecution.

It must be acknowledged that the ability to observe behavior and the ability to perform work duties are more limited when considering applicants who are medical marijuana users. However, an employer can still discuss past behavior of such an applicant with a previous employer and ask the applicant's health care provider about the effects of medical marijuana. In a tight labor market, employers may not be compelled to take these extra steps. But if the medical marijuana user has a disability, the duty to accommodate may require employers to make such additional inquiries.

On a broader scale, the current practice of discharging and rejecting medical marijuana users in the workplace demonstrates the limitations of employers' heavy reliance on drug testing. Instead of telling employers which applicants or employees are impaired, a drug test can only tell the employer whether any substance in a person's system matches those screened in a drug test. It is one thing for employers to discharge or reject workers based on the presence of an illegal substance in a person's system, but when the ingestion of the substance is not illegal, the employers should focus on the person's actual abilities to perform the work in question in making an employment decision.

392. See *supra* Parts IV-V.

APPENDIX A

*STATE STATUTES EXCLUDING WORKERS' COMPENSATION
CLAIMANTS BASED ON INTOXICATION*

Alabama: “[I]njury or death was caused by the willful misconduct of the employee”³⁹³ defined in part as “an accident due to the injured employee being intoxicated from the use of alcohol or being impaired by illegal drugs.”³⁹⁴

Alaska: Injury “proximately caused by the employee being under the influence of drugs unless the drugs were taken as prescribed by the employee’s physician.”³⁹⁵

Arkansas: “Injury where the accident was substantially occasioned by the use of alcohol, illegal drugs, or prescription drugs used in contravention of physician’s orders.”³⁹⁶

California: “[I]njury is not caused by the intoxication, by alcohol or the unlawful use of a controlled substance, of the injured employee.”³⁹⁷

Colorado: “Nonmedical benefits otherwise payable to an injured worker shall be reduced fifty percent where injury results from the presence in the worker’s system, during working hours, of not medically prescribed controlled substances”³⁹⁸

Connecticut: “[C]ompensation shall not be paid when the personal injury has been caused by the willful and serious misconduct of the injured employee or by his intoxication.”³⁹⁹

Delaware: “[I]njured as a result of employee’s own intoxication.”⁴⁰⁰

District of Columbia: “[I]njury to the employee was occasioned solely by his intoxication”⁴⁰¹

Florida: “[I]njury was occasioned primarily by the intoxication of the employee; [or] by the influence of any drugs, barbiturates, or other stimulants not prescribed”⁴⁰²

393. ALA. CODE § 25-5-51 (2007).

394. *Id.*

395. ALASKA STAT. § 23.30.235(2) (2010).

396. ARK. CODE ANN. § 11-9-102(4)(B)(iv)(a) (West 2005 & Supp. 2011).

397. CAL. LAB. CODE § 3600(a)(4) (West 2011 & Supp. 2012).

398. COLO. REV. STAT. ANN. § 8-42-112.5(1) (West 2003).

399. CONN. GEN. STAT. ANN. § 31-284(a) (West 2011).

400. DEL. CODE ANN. tit. 19, § 2353(b) (West 2006 & Supp. 2011).

401. D.C. CODE § 32-1503(d) (2001).

402. FLA. STAT. ANN. § 440.09(3) (West 2009).

Georgia: “[I]njury or death due to intoxication by alcohol or being under the influence of marijuana or a controlled substance, except as may have been lawfully prescribed by a physician for such employee and taken in accordance with such prescription.”⁴⁰³

Hawaii: “[I]njury incurred by an employee by the employee’s . . . intoxication.”⁴⁰⁴

Idaho: “If intoxication is a reasonable and substantial cause of an injury,” defined as “under the influence of alcohol or controlled substances”⁴⁰⁵

Indiana: “[I]njury or death due to the employee’s . . . intoxication”⁴⁰⁶

Iowa: “[I]njury caused . . . [b]y the employee’s intoxication, which did not arise out of and in the course of employment but which was due to the effects of alcohol or another narcotic, depressant, stimulant, hallucinogenic, or hypnotic drug not prescribed by an authorized medical practitioner, if the intoxication was a substantial factor in causing the injury.”⁴⁰⁷

Kansas: “[I]njury, disability or death was contributed to by the employee’s use or consumption of alcohol or any drugs, chemicals or any other compounds or substances, including but not limited to, any drugs or medications which are available to the public without a prescription from a health care provider, prescription drugs or medications, any form or type of narcotic drugs, marijuana, stimulants, depressants or hallucinogens.”⁴⁰⁸

Kentucky: “[I]njury, occupational disease, or death to the employee was proximately caused primarily by voluntary intoxication,”⁴⁰⁹ defined as “intoxication caused by substances which the defendant knowingly introduces into his body, the tendency of which to cause intoxication he knows or ought to know, unless he introduces them pursuant to medical advice or under such duress as would afford a defense to a charge of crime.”⁴¹⁰

Louisiana: Injury caused “by the injured employee’s intoxication at the time of the injury”⁴¹¹

403. GA. CODE ANN. § 34-9-17(b) (2008).

404. HAW. REV. STAT. § 386-3 (1993).

405. IDAHO CODE ANN. § 72-208(2) (2006 & Supp. 2011).

406. IND. CODE ANN. § 22-3-2-8 (West 2005).

407. IOWA CODE ANN. § 85.16(2) (West 2009).

408. KAN. STAT. ANN. § 44-501(b)(1)(A) (West Supp. 2011).

409. KY. REV. STAT. ANN. § 342.610(3) (LexisNexis Supp. 2011).

410. KY. REV. STAT. ANN. § 501.010(4) (LexisNexis Supp. 2011).

411. LA. REV. STAT. ANN. § 23:1081(1)(b) (2010).

Maine: “[I]njury or death resulted from the employee’s intoxication while on duty.”⁴¹²

Maryland: “[A]ccidental personal injury, compensable hernia, or occupational disease . . . caused solely by the intoxication of the covered employee while on duty.”⁴¹³

Massachusetts: “[E]mployee is injured by reason of his serious and willful misconduct”⁴¹⁴

Michigan: “[E]mployee is injured by reason of his intentional and willful misconduct”⁴¹⁵

Minnesota: “[I]ntoxication of the employee is the proximate cause of the injury”⁴¹⁶

Mississippi: “[I]ntoxication of the employee was the proximate cause of the injury”⁴¹⁷

Missouri: “[C]ompensation and death benefit provided for herein shall be reduced fifteen percent if the injury was sustained in conjunction with the use of alcohol or nonprescribed controlled drugs.”⁴¹⁸ Benefits forfeited if “use of alcohol or nonprescribed controlled drugs in violation of the employer’s rule or policy is the proximate cause of the injury”⁴¹⁹

Montana: “[E]mployee’s use of alcohol or drugs not prescribed by a physician is the major contributing cause of the accident.”⁴²⁰

Nebraska: “[I]njured by reason of his or her . . . being in a state of intoxication”⁴²¹

Nevada: “If the employee had any amount of a controlled substance in his or her system at the time of his or her injury for which the employee did not have a current and lawful prescription issued in the employee’s name or that the employee was not using in accordance with provisions of chapter 453A of NRS, the controlled substance must be presumed to be a proximate cause unless rebutted by evidence to the contrary.”⁴²²

New Hampshire: “[I]njury to a worker which is caused in whole or

412. ME. REV. STAT. ANN. tit. 39, § 202 (2000).

413. MD. CODE ANN., LAB. & EMPL. § 9-506(c) (West 2008 & Supp. 2011).

414. MASS. GEN. LAWS ch. 152, § 27 (2011).

415. MICH. COMP. LAWS § 418.305 (West 1999).

416. MINN. STAT. ANN. § 176.021 (West 2006).

417. MISS. CODE ANN. § 71-3-7(d) (West 2009).

418. MO. ANN. STAT. § 287.120(6)(1) (West 2005 & Supp. 2011).

419. § 287.120(6)(2).

420. MONT. CODE ANN. § 39-71-407(5) (2011).

421. NEB. REV. STAT. ANN. § 48-127 (LexisNexis 2007).

422. NEV. REV. STAT. ANN. § 616C.230(1)(d) (West Supp. 2011).

in part by the intoxication”⁴²³

New Jersey: “[I]ntoxication or the unlawful use of controlled dangerous substances as defined in the [state criminal code], . . . is the natural and proximate cause of injury or death”⁴²⁴

New Mexico: “No compensation . . . [if] injury was occasioned by [employee’s] intoxication”⁴²⁵ or if injury was “occasioned solely by the person being under the influence of a depressant, stimulant or hallucinogenic drug as defined [under state criminal law,] . . . unless the drug was dispensed to the person upon . . . prescription.”⁴²⁶ Compensation reduced by 10% if use of drug was contributing cause of injury.⁴²⁷

New York: “[I]t shall be presumed . . . that injury did not result solely from the intoxication of the injured employee while on duty.”⁴²⁸

North Carolina: “[I]njury or death to the employee was proximately caused by his intoxication”⁴²⁹

North Dakota: “[I]njury caused by the use of intoxicants or the illegal use of controlled substances.”⁴³⁰

Ohio: Injury “caused by the employee being intoxicated or under the influence of a controlled substance not prescribed by a physician where the intoxication or being under the influence of the controlled substance not prescribed by a physician was the proximate cause of the injury”⁴³¹

Oklahoma: “[I]njury which occurs when an employee is using substances defined and consumed pursuant to [state’s criminal code], or is using or abusing alcohol or illegal drugs, or is illegally using chemicals”⁴³²

Oregon: “[M]ajor contributing cause [of injury] is demonstrated to be by a preponderance of the evidence the injured worker’s consumption of alcoholic beverages or the unlawful consumption of any controlled substance”⁴³³

Pennsylvania: “[I]njury or death . . . caused by the employee’s

423. N.H. REV. STAT. ANN. § 281-A:14 (2010).

424. N.J. STAT. ANN. § 34:15-7 (West 2011).

425. N.M. STAT. ANN. § 52-1-11 (West 2011).

426. *Id.* § 52-1-12.

427. *Id.* § 52-1-12.1.

428. N.Y. WORKERS’ COMP. LAW § 21(4) (McKinney 2005).

429. N.C. GEN. STAT. § 97-12(1) (2011).

430. N.D. CENT. CODE § 65-01-02(10)(b)(3) (2010).

431. OHIO REV. CODE ANN. § 4123.54(A)(2) (West 2007 & Supp. 2011).

432. OKLA STAT. ANN. tit. 85, § 11(A)(3) (West 2006) (repealed 2011).

433. OR. REV. STAT. ANN. § 656.005(7)(b)(C) (West 2003 & Supp. 2011).

violation of law, including, but not limited to, the illegal use of drugs[;] . . . no compensation shall be paid if the injury or death would not have occurred but for the employee's intoxication"⁴³⁴

Rhode Island: "[I]njury or death . . . resulted from his or her intoxication or unlawful use of controlled substances as defined in [the state criminal code]."⁴³⁵

South Carolina: "[I]njury or death was occasioned by the intoxication of the employee"⁴³⁶

South Dakota: "[A]ny injury or death due to the employee's willful misconduct, including intentional self-inflicted injury, intoxication, illegal use of any schedule I or schedule II drug"⁴³⁷

Tennessee: "[I]njury or death due to the employee's . . . intoxication or illegal drug usage"⁴³⁸

Texas: "[I]njury occurred while the employee was in a state of intoxication."⁴³⁹

Utah: "[M]ajor contributing cause of the employee's injury is the employee's use of a controlled substance that the employee did not obtain under a valid prescription [or] intentional abuse of a controlled substance that the employee obtained under a valid prescription"⁴⁴⁰

Vermont: "[I]njury caused by or during [the employee's] intoxication"⁴⁴¹

Virginia: "[I]njury or death caused by the employee's intoxication."⁴⁴²

West Virginia: "[I]njury to or death to any employee caused by . . . the intoxication of the employee."⁴⁴³

Wisconsin: "[I]f injury results from the intoxication of the employee by alcohol beverages . . . or use of a controlled substance or a controlled substance . . . death benefit provided in this chapter shall be reduced 15% but the total reduction may not exceed \$15,000."⁴⁴⁴

Wyoming: "Injury caused by [t]he fact the employee is intoxicated or under the influence of a controlled substance, or both, except any

434. 77 PA. CONS. STAT. ANN. § 431 (West 2011).

435. R.I. GEN. LAWS § 28-33-2 (2003).

436. S.C. CODE ANN. § 42-9-60 (Supp. 2010).

437. S.D. CODIFIED LAWS § 62-4-37 (2009).

438. TENN. CODE ANN. § 50-6-110(a) (2008).

439. TEX. LAB. CODE ANN. § 406.032(1)(A) (West 2006).

440. UTAH CODE ANN. § 34A-2-302(3)(b)(i)-(ii) (LexisNexis 2011).

441. VT. STAT. ANN. tit. 21, § 649 (West 2007).

442. VA. CODE ANN. § 65.2-306(A)(3) (2007).

443. W. VA. CODE ANN. § 23-4-2(a) (West 2008).

444. WIS. STAT. ANN. § 102.58 (West 2010).

2012]

DRUG TESTING OF MEDICAL MARIJUANA

341

prescribed drug taken as directed by an authorized health care provider.⁴⁴⁵

445. WYO. STAT. ANN. § 27-14-102(a)(xi)(B)(I) (2011).