

**RUNNING HEAD: School Drug Testing**

**The Coalescence of Law and Science in an Era of School Drug Testing:  
Beyond *Vernonia*, *Earls*, and *Joye***

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## Introduction

Two Supreme Court decisions have upheld the constitutionality of drug testing in public schools: *Vernonia School District 47J v. Acton*<sup>2</sup> and the *Board of Education of Independent School District No. 92 of Pottawatomie County v. Earls*.<sup>3</sup> In *Vernonia*, the Court upheld the constitutionality of random drug testing for students who participate in school athletics. In *Earls*, the Court expanded *Vernonia* to include students who participate in any type of competitive extracurricular activity. Relying on the decisions in *Vernonia* and *Earls*, the Supreme Court of New Jersey upheld the constitutionality of student drug testing in *Joye v. Hunterdon Central Regional High School Board of Education*.<sup>4</sup>

Given the recent inclination by the U.S. Supreme Court and the Supreme Court of New Jersey to broaden a public school's authority to implement drug testing programs, this Note considers whether New Jersey public schools should implement a random drug testing program for *all* students, regardless of their involvement in extracurricular activities. A review of the juvenile delinquency and alternative drug testing technology literature suggests that such a comprehensive drug testing program is a logical next step in achieving the recognized goals of drug prevention in public schools. Part II of this essay reviews the rationales for school-based drug testing articulated in *Vernonia*, *Earls*, and *Joye*. Part III discusses the prevalence and associated problems of illicit drugs in the United States generally and in New Jersey specifically. Part IV presents an overview of social control theory as an explanation for juvenile delinquency. Part V discusses the

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<sup>2</sup> 515 U.S. 646 (1995) [hereafter *Vernonia*].

<sup>3</sup> 536 U.S. 822 (2002) [hereafter *Earls*].

<sup>4</sup> 176 N.J. 568 (2003) [hereafter *Joye*].

evolution of oral fluid (OF) drug testing technology. Part VI argues that drug testing decisions should be influenced by a variety of outside forces, including Federally created drug use surveillance systems, the juvenile delinquency and other social science literature, and the toxicological literature.

### Rationales for School Drug Testing

The Courts in *Vernonia*, *Earls*, and *Joye* offered three rationales for upholding the legality of drug testing in public schools: students' reduced expectation of privacy, the minimal intrusion involved with drug testing, and the importance of the state's interest. The Fourth Amendment to the United States Constitution, which applies to the states through the Fourteenth Amendment, guarantees "the right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures."<sup>5</sup> For a search to be constitutional under the Fourth Amendment, therefore, it must be reasonable.<sup>6</sup> While the Fourth Amendment usually requires a warrant or the existence of probable cause for a search or seizure to pass constitutional muster, the Court has recognized that there are, at times, "special needs" which make the requirement of individualized suspicion for a search to be reasonable unnecessary.<sup>7</sup> In *Vernonia*, *Earls*, and *Joye*, the Court upheld a school district's random, suspicionless drug screening of student athletes as permissible under the "special needs" exception to the Fourth Amendment.<sup>8</sup>

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<sup>5</sup> U.S. Const. amend. IV.

<sup>6</sup> *Supra* note 2.

<sup>7</sup> *Skinner v. Ry. Lab. Execs. Assn.*, 489 U.S. 602 (1989).

*Privacy Expectations*

In *Vernonia*, *Earls*, and *Joye*, the Courts considered the nature of the privacy interest that was purportedly compromised by the request for a urine specimen. Since *New Jersey v. T.L.O.*,<sup>9</sup> the Supreme Court has recognized that a student relinquishes certain rights to privacy when entrusted to a school for supervision. In *T.L.O.*, the Court noted that securing stability within the school environment, an environment in which student and teacher safety could be compromised, may sometimes require students be subjected to stricter controls than those which would typically be considered appropriate for adults.<sup>10</sup>

The relinquishment of rights was critical because States are responsible for maintaining discipline, health, and safety in public schools.<sup>11</sup> Rejecting the argument that children participating in non-athletic activities had a greater expectation of privacy, the Court in *Earls* stated that “. . . students who participate in competitive extracurricular activities voluntarily subject themselves to many of the same intrusions on their privacy as do other athletes,” including “. . . occasional off-campus travel and communal undress.”<sup>12</sup> The Court’s rationale, therefore, was that students who participate in extracurricular activities voluntarily subject themselves to the same intrusions on their privacy and should thus be held to the same standards as athletes.

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<sup>8</sup> *Supra* note 2.

<sup>9</sup> 469 U.S. 325 (1985) [hereafter *T.L.O.*].

<sup>10</sup> *Id.* at 350.

<sup>11</sup> *Supra* note 3.

<sup>12</sup> *Id.* at 832.

*Nature of the Intrusion*

The courts next considered the personal invasiveness imposed by the collection of a urine specimen. In *Vernonia*, the Court stated that the degree of intrusion caused by the collection of a urine specimen “. . . depends upon the manner in which production of the urine sample is monitored.”<sup>13</sup> In *Vernonia*, *Earls*, and *Joye*, the courts determined reasoned that the method of the collection caused, at worst, a “negligible” intrusion. The Court in *Earls* also noted that the drug test results were kept confidential, released to school personnel only on a need to know basis, and that a positive test had no criminal justice or academic implications.<sup>14</sup> The only negative consequence for *two* failed drug tests was that the student could not participate in the extracurricular activity.<sup>15</sup> Given the minimal intrusion during the actual specimen collection and the relatively minor sanctions that could be imposed following even multiple positive tests, the Court in *Earls* concluded that the “. . . invasion of students’ privacy is not significant.”<sup>16</sup>

*Immediacy of the State’s Concern*

The ultimate rationale for implementing a drug testing protocol, in any environment and within any population, is the reduction and prevention of illicit drug use. With findings from Monitoring the Future (MTF),<sup>17</sup> the U.S. Supreme Court recognized that illicit drug use is a serious problem facing American youth and indeed was a problem that had only intensified between 1995 (*Vernonia*) and 2002 (*Earls*). As the Court noted, “. . . the

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<sup>13</sup> *Supra* note 2, at 658.

<sup>14</sup> *Supra* note 3, at 834.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

nationwide drug epidemic makes the war against drugs a pressing concern in every school.”<sup>18</sup> In addition to MTF results, which present national drug use findings, specific evidence about illicit drug use in Tecumseh schools was also presented. Rejecting the argument in *Earls* that safety issues were not relevant for non-athletes, the Court concluded that, “. . . given the nationwide drug epidemic of drug use, and the evidence of increased drug use in Tecumseh schools, it was entirely reasonable for the School District to enact this particular drug testing policy.”<sup>19</sup>

The decisions in *Vernonia* and *Earls* are clear in their support for drug testing in public schools. That eligibility for drug testing has expanded from athletes *only* in 1995 to *all* students participating in extracurricular activities suggests a conservative shift in the Court’s position on how best to tackle school-based drug issues. A logical next step is the consideration of random drug testing for *all* students, regardless of their involvement in extracurricular activities.

### The Problem of Illicit Drugs

#### *National Data*

The Federal government funds four major data collection efforts to measure the prevalence of drug use within the United States, each of which gathers information on a specific population. The National Survey on Drug Use and Health (NSDUH), formerly the National Household Survey on Drug Abuse, generates self-report survey estimates of

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<sup>17</sup> Lloyd D. Johnston, Patrick M. O'Malley, & Jerald G. Bachman, *Monitoring the Future National Survey Results on Drug Use, 1975-2002, Volume I: Secondary School Students* (Natl. Inst. Drug Abuse 2003).

<sup>18</sup> *Supra* note 3, at 835.

<sup>19</sup> *Id.*

drug use among household members ages 12 and older.<sup>20</sup> Since the 1970s, MTF has surveyed approximately 50,000 grade school, high school, and college students annually on their drug-using beliefs, attitudes, and behaviors.<sup>21</sup> The Drug Abuse Warning Network (DAWN) is an annual probability survey of drug-related patients treated in hospital emergency departments (ED)<sup>22</sup> and drug-related death data collected from a sample of medical examiners' and coroners' offices.<sup>23</sup> Though discontinued at the end of 2003,<sup>24</sup> the Arrestee Drug Abuse Monitoring (ADAM) Program collected self-report drug use data and urine specimens from adult and juvenile arrestees nationwide.<sup>25</sup> The ADAM Program was the only surveillance system in the United States to collect both self-report and objective drug use measures.<sup>26</sup> Findings from these four surveillance systems reveal significant illicit drug use and associated problems within a variety of populations.

In 2002, an estimated 19.5 million Americans aged 12 or older, or 8.3 percent of the population, were current (past 30-day) illicit drug users.<sup>27</sup> Marijuana is the most prevalent illicit drug within the American household population, with 6.2 percent reporting its use during the past 30 days.<sup>28</sup> Of the 14.6 million Americans who reported using marijuana in the 30 days preceding the interview, about one-third used it at least 20

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<sup>20</sup> Substance Abuse & Mental Health Servs. Administration, *Results from the 2002 National Survey on Drug Use and Health: National Findings* (U.S. Dept. Health & Human Servs. 2003).

<sup>21</sup> *Supra* note 17.

<sup>22</sup> Substance Abuse & Mental Health Servs. Administration, *Emergency Department Trends from the Drug Abuse Warning Network, Final Estimates 1995-2002* (U.S. Dept. Health & Human Servs. 2003).

<sup>23</sup> Substance Abuse & Mental Health Servs. Administration, *Mortality Data from the Drug Abuse Warning Network, 2001* (U.S. Dept. Health & Human Servs. 2003).

<sup>24</sup> George S. Yacoubian, Jr., *The Sins of ADAM: Toward a New National Criminal Justice Drug Use Surveillance System*, 3 *Intl. J. Drug Testing* (2004), <http://www.criminology.fsu.edu/journal/volume3.html> [accessed July 12, 2005].

<sup>25</sup> Natl. Inst. Just., *2000 Arrestee Drug Abuse Monitoring Annual Report* (U.S. Dept. Just. 2003).

<sup>26</sup> George S. Yacoubian, Jr., *Assessing ADAM's Domain: Past, Present, and Future*, 27 *Contemporary Drug Problems* 121 (2000).

<sup>27</sup> *Supra* note 20.

<sup>28</sup> *Id.*

of those 30 days.<sup>29</sup> Following marijuana, there were two million current cocaine users, 1.2 million current hallucinogen users [e.g., phencyclidine (PCP)], and 166,000 current heroin users.<sup>30</sup> The rate of illicit drug use within the household population was highest among persons between the ages of 18 and 25 (20.2 percent).<sup>31</sup> In 2002, 11 million persons, or 4.7 percent of persons 12 and older, reported driving under the influence of an illicit drug at least one time during the 12 months preceding the interview.<sup>32</sup> Finally, the percentage of lifetime marijuana use among persons aged 18 to 25 increased from 53.0 percent in 2001 to 53.8 percent in 2002, while lifetime cocaine use increased from 14.9 percent to 15.4 percent.<sup>33</sup>

In 2002, 25.4 percent of 12<sup>th</sup> graders and 20.8 percent of 10<sup>th</sup> graders reported the use of at least one illicit drug during the past 30 days.<sup>34</sup> Not surprisingly, the most prevalent current illicit drug was marijuana – 21.5 percent, for 12<sup>th</sup> graders and 17.8 percent for 10<sup>th</sup> graders.<sup>35</sup> The prevalence of *all* other illicit drugs – including PCP, ecstasy, cocaine, and heroin – was less than three percent for both subgroups.<sup>36</sup>

In 2002, there were more than 670,000 drug-related ED episodes in the United States.<sup>37</sup> Slightly more than eight out of every 10 (81 percent) ED mentions came from seven categories: alcohol-in-combination, cocaine, heroin, marijuana, benzodiazepines, antidepressants, and analgesics.<sup>38</sup> In 2002, cocaine was a factor in 30 percent of all ED

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<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Supra* note 17.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *Supra* note 22.

<sup>38</sup> *Id.*

episodes, followed by marijuana (18 percent), and heroin (14 percent).<sup>39</sup> Between 2001 and 2002, ED mentions of cocaine, heroin, and methamphetamine were unchanged, while a 17 percent increase was witnessed among amphetamines.<sup>40</sup> In 2001, 33 out of the 42 DAWN cities reported at least 30 drug abuse deaths, with significant increases reported in Wilmington, Providence, Buffalo, and Denver between 2000 and 2001.<sup>41</sup> Heroin and cocaine were the two most frequently mentioned drugs in reported deaths.<sup>42</sup>

In 2000, 64 percent or more of adult male arrestees, in more than half of the 35 ADAM sites, tested positive by urinalysis for at least one of five drugs: cocaine, marijuana, opiates, methamphetamine, or PCP.<sup>43</sup> As measured by urinalysis, cocaine and marijuana were the two most prevalent illicit drugs.<sup>44</sup> Between 25 and 50 percent of all adult male arrestees were found to be at risk for drug dependence, while among those female arrestees who used alcohol or illicit drugs, approximately 50 percent were diagnosed as drug dependent.<sup>45</sup> Mirroring the results from MTF and the NSDUH, marijuana was the prevalent drug among the juvenile arrestee population.<sup>46</sup> Among adult and juvenile arrestees, cocaine, marijuana, and heroin use rates have remained fairly constant during the past decade, while the use of methamphetamine, primarily within Western ADAM sites, has increased dramatically.<sup>47</sup>

These four drug surveillance systems are the primary tools used by the Federal governments to develop national drug control policy. Taken collectively, they provide a

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<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Supra* note 23.

<sup>42</sup> *Id.*

<sup>43</sup> *Supra* note 24.

<sup>44</sup> *Id.*

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

comprehensive snapshot of drug use in the United States. While natural fluctuations have occurred during the past three decades, within all of the populations served by these surveillance systems, there is only one reasonable conclusion that can be drawn from the body of drug use prevalence data we have at our disposal – that significant drug use continues to plague all sectors of American society.

*Local Data*

In addition to the aforementioned national data evidencing high levels of alcohol and other drug (AOD) use among high school-aged youth, Hunterdon Central Regional High School collected local data. Private researchers were contracted to administer surveys related to students' personal AOD use histories. The surveys were administered anonymously and took approximately 30 minutes to complete. More than 33 percent of students between the tenth and twelfth grades reported using marijuana in the 12 months preceding the interview.<sup>48</sup> Results also demonstrated that 13 percent of the twelfth graders had tried cocaine, that 12 percent of the juniors had tried hallucinogens, and that 40 percent of the high school students had been drunk in the 12 months preceding the interview.<sup>49</sup> Because these findings evidenced a serious AOD problem, the Hunterdon Central Regional High School Board of Education implemented its first random AOD testing program in July 1997. Testing was limited to students who participated in school athletics, and the program required parents/guardians to consent to the testing protocol as a condition of participation in school athletics. A followup personal drug use survey was

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<sup>47</sup> *Id.*

<sup>48</sup> *Supra* note 4, at 576.

<sup>49</sup> *Id.*

conducted in 1999-2000.<sup>50</sup> Although the drug use prevalence rates had declined, the Board expanded the protocol to include students who held parking permits and who engaged in any type of extracurricular activity.<sup>51</sup>

### Juvenile Delinquency

One of the most popular criminological theories is social control theory. Making the most thorough statement of social control theory to date, Travis Hirschi elaborated on the components that caused youths to bond or attach themselves to the dominant value system.<sup>52</sup> Hirschi argued that delinquency would result if youths were not controlled in some fashion.<sup>53</sup> His comprehensive social control or social bonding theory stated that individuals who were tightly connected to social groups, such as the family and school, would be less likely to commit delinquent acts, like using illicit drugs.<sup>54</sup> Hirschi identified four elements to the social bond that created conformity: attachment, commitment, involvement, and belief.<sup>55</sup>

*Attachment* is the most important of the four elements and represents the effect of close ties to parents and peers and to legitimate institutions, like clubs, school, or church.<sup>56</sup> Because attachment is the basic element necessary for the internalization of values and norms, the stronger the attachments, the less likely delinquency will occur.

*Commitment* refers to an investment in conventional ideals.<sup>57</sup> For youth, a high level of

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<sup>50</sup> *Id.*

<sup>51</sup> *Id.* at 578.

<sup>52</sup> Travis Hirschi, *Causes of Delinquency* (U. Cal. Press 1969).

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

commitment might be running for class president or a spot on a sports team. *Involvement* represents the time and energy spent in conventional activities.<sup>58</sup> The operating assumption with the element of involvement is that individuals who spend time engaged in legitimate activities, like sports or clubs, will have little or no time for illegitimate activities, like drug use. Finally, *belief* is a general respect for society's values and the accompanying feelings to obey them.<sup>59</sup> Individuals who illustrate a high degree of loyalty to conventional values are less likely to violate them.

The most relevant of the social bond elements for school-based drug testing is involvement. *Vernonia*, *Earls*, and *Joye* affirmed drug testing for those students involved in all extracurricular activities. While the rationales of the Courts are not unreasonable, targeting *only* students involved in extracurricular activities overlooks those students most at risk for illicit drug use. Several decades of social control findings suggest that a *lack* of extracurricular involvement is a risk factor for juvenile delinquency, such as illicit drug use.<sup>60</sup> If the past several decades of social control research are valid, and if the goals of reducing and preventing the use of illicit drugs in New Jersey schools are ones in which society is legitimately invested, then school administrators and jurisdictional

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<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

<sup>60</sup> See e.g. Robert Agnew, *Why Do They Do It? An Examination of the Intervening Mechanisms Between 'Social Control' Variables and Delinquency*, 30 J. Research Crime & Delinquency 245 (1993); Kimberly L. Kempf, *The Empirical Status of Hirschi's Control Theory*, in *New Directions in Criminological Theory: Advances in Criminological Theory* (F. Adler & W. S. Laufer eds. 1993); Stephen Cernkovich & Peggy Giordano, *School Bonding, Race, and Delinquency*, 30 Criminology 261 (1992); Josine Junger-Tas, *An Empirical Test of Social Control Theory*, 8 J. Quantitative Criminology 9 (1992); Anita Mak, *Psychosocial Control Characteristics of Delinquents and Nondelinquents*, 18 Crim. Just. & Behavior 287 (1991); Ronald L. Akers & John K. Cochran, *Adolescent Marijuana Use: A Test of Three Theories of Deviant Behavior*, 6 Deviant Behavior 323 (1985); Robert Agnew, *Social Control Theory and Delinquency: A Longitudinal Test*, 23 Criminology 47 (1985); W. Alex McIntosh, Starla D. Fitch, J. Branton Wilson, & Kenneth L. Nyberg, *The Effect of Mainstream Religious Social Controls on Adolescent Drug Use in Rural Areas*, 23 Rev. Relig. Research 54 (1981). Marvin D. Krohn & James L. Massey, *Social Control and Delinquent*

policymakers should consider implementing a random drug testing program for all students, regardless of their involvement in extracurricular activities.

A random drug testing protocol for *all* students has two major advantages. First, the use of urinalysis or an alternative drug testing method provides an objective measure of recent drug use and would thus allow school officials to accurately identify the prevalence of illicit drug use within their school. Given that a body of research has indicated that respondents surveyed about illicit drug use are likely to underreport their involvement,<sup>61</sup> a biological specimen would be the most accurate method by which recent drug use could be ascertained. Second, a drug testing program that involved all students would reduce and prevent drug use more comprehensively than one that only targets an extracurricularly-involved subset of the student body.

### Oral Fluid Analysis

While urinalysis has been used for several decades to monitor illicit drug use, several other biological specimens, such as OF and hair, can now be tested for the presence of illicit drugs. The primary toxicological difference between these drug testing alternatives

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*Behavior: An Examination of the Elements of the Social Bond*, 21 *Sociological Q.* 529 (1980); Michael J. Hindelang, *Causes of Delinquency: A Partial Replication and Extension*, 20 *Soc. Problems* 471 (1973).

<sup>61</sup> George S. Yacoubian, Jr., Kristine Larsen, Regina Johnson, Blake J. Urbach, & Ron Peters, *Comparing the Validity of Self-Reported Recent Drug Use Between Adult and Juvenile Arrestees*, 35 *J. Psychoactive Drugs* 279 (2003); George S. Yacoubian, Jr., *Reassessing the Need for Urinalysis as a Validation Technique: Correlation Estimates from the Arrestee Drug Abuse Monitoring (ADAM) Program*, 30 *J. Drug Issues* 323 (2000); Lana D. Harrison, *The Validity of Self-Reported Drug Use in Survey Research: An Overview and Critique of Research Methods*, in *The Validity of Self-Reported Drug Use: Improving the Accuracy of Survey Estimates* (L. Harrison & A. Hughes eds. 1997); Lana D. Harrison, *The Validity of Self-Reported Data on Drug Use*, 25 *J. Drug Issues* 91 (1995); Michael Fendrich & Yanchun Xu, *Validity of Drug Use Reports from Juvenile Arrestees*, 29 *Intl. J. Addictions* 971 (1994).

is the window of detection. Hair testing measures historical drug use, typically between seven and 90 days after ingestion.<sup>62</sup> Urinalysis can detect most illicit drugs up to 72 hours after ingestion.<sup>63</sup> OF testing can detect very recent drug use, typically within 24 hours of ingestion.<sup>64</sup> Because of their overlapping windows of detection, OF testing may offer school administrators an acceptable alternative to urinalysis. Indeed, toxicological analyses and field tests during the past several years suggest that OF analysis is about as accurate as urinalysis for detecting the recent use of most illicit drugs.<sup>65</sup>

To assess the accuracy of opiate detection, for example, Speckl and colleagues collected 130 urine and OF specimens from patients participating in drug withdrawal therapy.<sup>66</sup> The concordance of OF analysis to urinalysis for opiate detection was 98 percent.<sup>67</sup> Yacoubian et al. collected urine and OF specimens from 114 adult male arrestees in Anne Arundel, Charles, and Prince George's Counties, Maryland, between April and July 2000.<sup>68</sup> With urinalysis as the reference standard, the Intercept Oral Specimen Collection Device (Intercept) was 100% sensitive and 99% specific for

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<sup>62</sup> Thomas Mieczkowski, *Drug Testing Technology: Assessment of Field Applications* (CRC Press 1999).

<sup>63</sup> *Id.*

<sup>64</sup> Edward J. Cone, *Saliva Testing for Drugs of Abuse*, in *Saliva as a Diagnostic Fluid* (D. Malamud & L. Tabak eds. 1993).

<sup>65</sup> George S. Yacoubian, Jr., & E.D. Wish, *A Comparison of the Intercept Oral Specimen Collection Device (IOSCD)® to Laboratory Urinalysis among Baltimore City Treatment Clients*, 3 *Intl. J. Drug Testing* (2004); Eric D. Wish & George S. Yacoubian, Jr., *A Comparison of the Intercept Oral Specimen Collection Device® to Laboratory Urinalysis among Baltimore City Arrestees*, 66 *Fed. Probation* 27 (2002); George S. Yacoubian, Jr., Eric D. Wish, & Deanna M. Pérez., *A Comparison of Saliva Testing to Urinalysis in an Arrestee Population*, 33 *J. Psychoactive Drugs* 289 (2001); Sam Niedbala, K. Kardos, T. Fries, A. Cannon, & A. Davis, *Immunoassay for Detection of Cocaine/Metabolites in Oral Fluids*, 25 *J. Analytical Toxicology* 62 (2001); I.M. Speckl, J. Hallbach, W.G. Guder, L. Meyer, & T. Zilker, *Opiate Detection in Saliva and Urine – A Prospective Comparison by Gas Chromatography-Mass Spectrometry*, 37 *Clinical Toxicology* 441 (1999).

<sup>66</sup> Speckl et al., *supra* note 65.

<sup>67</sup> *Id.*

<sup>68</sup> Yacoubian et al., *supra* note 65.

cocaine and 88% sensitive and 100% specific for opiates.<sup>69</sup> Niedbala et al. collected urine and OF specimens from 149 cocaine-experienced subjects participating in research at three treatment facilities across the United States.<sup>70</sup> The Intercept was 95% sensitive and 88% specific for cocaine.<sup>71</sup>

Wish and Yacoubian collected urine and OF specimens from 284 adult arrestees in Baltimore City during the spring of 2001.<sup>72</sup> With laboratory urinalysis as the criterion measure, the Intercept was 95% sensitive and 98% specific for cocaine and 90% sensitive and 99% specific for opiates.<sup>73</sup> For marijuana, the sensitivity was 56%, and the specificity was 99%.<sup>74</sup> Most recently, Yacoubian and Wish collected urine and OF specimens from 163 adult treatment clients in Baltimore City.<sup>75</sup> The Intercept was 100 percent sensitive and 100 percent specific for benzodiazepines, 82 percent sensitive and 96 percent specific for cocaine, 100 percent sensitive and 92 percent specific for methadone, and 83 percent sensitive and 99 percent specific for opiates.<sup>76</sup> For marijuana, the sensitivity was 39 percent and the specificity was 93 percent.<sup>77</sup>

Taken collectively, these results suggest that OF analysis is about as accurate as urinalysis for detecting the recent use of most illicit drugs. The most problematic drug with respect to detection capability is marijuana. That the aforementioned marijuana specificities are high suggests that few false-positives are being generated by OF analysis. That is, most specimens that were marijuana-negative by urinalysis were also negative for

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<sup>69</sup> *Id.*

<sup>70</sup> Niedbala et al., *supra* note 65.

<sup>71</sup> *Id.*

<sup>72</sup> Wish & Yacoubian, *supra* note 65.

<sup>73</sup> *Id.*

<sup>74</sup> *Id.*

<sup>75</sup> Yacoubian & Wish, *supra* note 65.

<sup>76</sup> *Id.*

marijuana by OF analysis. Relatively low sensitivity coefficients, however, translate into a high proportion of false-negatives. That is, a relatively high percentage of respondents who were marijuana-positive by urinalysis tested negative for marijuana by OF analysis. These marijuana-positives would thus have been missed if only the OF test had been used. OF is particularly useful when detecting very recent (<12 hour) marijuana use, but becomes less accurate as the time frame between use and screening increasing.<sup>78</sup> The low sensitivities may be particularly problematic with high school students because marijuana is the most prevalent drug within this population.<sup>79</sup> Because OF is a relatively new technology, school administrators must realize that a certain proportion of marijuana-using students, who would be detected as positive by urinalysis, may be missed with the OF testing method. As with all new products, technological improvement should, over time, increase the sensitivity coefficients to levels of other illicit drugs.

Opponents of school-based drug testing argue that the privacy intrusion is significant.<sup>80</sup> The American Civil Liberties Union (ACLU), for example, opposes drug testing in schools because, “. . . at a level of both subjective and objectively reasonable feelings, a drug testing regime conducted by a school is intrusive.”<sup>81</sup> A salient issue, however, and one not addressed by the ACLU, is whether *all* biological specimens are invasive or if the intrusiveness is enhanced with the collection of a urine sample. It is likely safe to assume that the ACLU is opposed to all drug testing, regardless of the specimen obtained. That is, asking a child to prove drug abstinence via *any* biological

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<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> *Supra* note 17.

<sup>80</sup> Am. Civ. Liberties Union, *Ignoring Expert Advice, Supreme Court Expands Drug Testing of Students* (Am. Civ. Liberties Union 2002).

specimen is an invasion of privacy. There is, however, a major difference between the collection of urine and OF specimens. Collecting the former requires the exposure of genitals and is potentially sexually embarrassing, while the latter simply requires the use of an oral swab in as non-threatening a collection environment as an office or classroom. While the ACLU may still perceive OF drug testing to be invasive, there can be little dispute that it provides a *less intrusive* method than urinalysis for objectively identifying the recent use of illicit drugs.

The procedures for collecting OF are simple.<sup>82</sup> Under direct supervision, the provider takes a swab and rubs it between his/her lower cheek and gums for two minutes.<sup>83</sup> The swab is then pushed into a vial, and the vial is capped.<sup>84</sup> No saliva stimulation is necessary. The specimen can be collected in any environment by any collector. Given the type of biological specimen being collected, there is no need for gender-matched collectors and issues of provider embarrassment become moot.<sup>85</sup> The body of empirical and anecdotal evidence at our disposal clearly suggests that OF collections are superior to the collection of urine specimens.<sup>86</sup>

### Conclusion

Two recent Supreme Court cases – *Vernonia* and *Earls* – and the leading New Jersey Supreme Court case – *Joye* – expressly permit the drug testing of students involved in extracurricular activities. Given the Courts’ inclination to gradually expand a school’s

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<sup>81</sup> *Id.*

<sup>82</sup> Yacoubian & Wish, *supra* note 58.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> Yacoubian et al., *supra* note 58.

authority to drug test its students, the current essay recommends that New Jersey schools consider implementing random drug tests for *all* students, regardless of their involvement in extracurricular activities. A contemporaneous review of the juvenile delinquency and OF drug testing technology literature suggests that such a comprehensive drug testing program is the next step in achieving the recognized goals of drug prevention in schools.

Arguments against school-based drug testing are threefold: searches in the school context must be based on individualized suspicion, that the nature of the privacy intrusion is significant, and drug testing is not a proven solution to deterring illicit drug use.<sup>87</sup> The Courts have determined that, with respect to drug issues, aggregate data, as opposed to individualized suspicion, suffice to establish a problem in need of remedy.<sup>88</sup> Indeed, *Vernonia* and *Earls*, while not explicitly undermining *T.L.O.*, conveyed the all-important message that drug problems be particularly severe to warrant a departure from the reasonableness standard. The ACLU's second argument, that drug testing is inherently invasive, is specious with the advent of the virtually non-invasive OF testing. Unless opponents of school-based drug testing argue that the collection of *any* biological specimen is inherently intrusive, OF analysis should provide an acceptable alternative to urinalysis. The third argument, that drug testing has not been proven to deter illicit drug use among high school students, is an empirical question that can only be answered with future research. Given the minimal nature of OF drug testing, and the venerable goals of combating drug use in schools, the hypothesis that drug testing can indeed deter illicit drug use is worth empirical investigation.

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<sup>86</sup> *Supra* note 58.

<sup>87</sup> Am. Civ. Liberties Union, *Board of Education of Independent School District No. 92 of Pottawatomie County v. Earls*, Brief of Respondents (No. 01-332) (Am. Civ. Liberties Union 2001).

The ACLU argues that because students involved in non-athletic extracurricular activities are the least likely segment of the study body to use drugs, that drug-testing programs should be curtailed.<sup>89</sup> This is a circuitous contention, however, and does not address a school's mandate to prevent the use of illicit drugs. Randomly drug testing all students discriminates against no one and does indeed provide a remedy for combating the use of illicit drugs. The ACLU has stated that, ". . . if every student in every school is subject to testing, the need devolves from being special to being routine – a lesson to all students that the Constitution is a mere platitude, that no rights are inalienable, and that liberty is available only at the whim of state authorities."<sup>90</sup> This is an unfortunate misinterpretation of the spirit of a drug testing campaign. A routine drug testing protocol that makes all students eligible for selection conveys the message that student drug use is a community concern requiring the cooperation of all parties and that we, as a society, recognize that the health of our students supercedes the minimal intrusions produced by a drug testing protocol.

We live in an era of technological innovation and information sharing. As such, it is not unreasonable for legal decisions to be influenced by a myriad of outside forces. The current essay has demonstrated the extent to which legal decisions regarding school-based drug testing can and should be influenced by a variety of such forces, including Federally created drug use surveillance systems, the juvenile delinquency and other social science literature, and the toxicological literature. Findings from these various domains

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<sup>88</sup> *Supra* note 2.

<sup>89</sup> *Supra* note 80.

<sup>90</sup> *Id.*

coalesce to impact arguments in favor of random school-based drug testing for all students, regardless of extracurricular involvement.

The holdings in *Vernonia*, *Earls*, and *Joye* epitomize the mantra that the needs of society outweigh individual concerns. Despite a variety of drug control policy initiatives during the past two decades, the United States continues to be confronted by the relentless problems associated with illicit drug use. As a result, the United States is in need of policies which are designed to reduce illicit drug consumption. There are a variety of potentially useful alternatives. Interdiction or supply-side efforts seek to attack the problem of illicit drugs at the source.<sup>91</sup> These efforts, which include crop eradication and law enforcement operations, are grounded in the notion that if fewer quantities of drugs make their way into the United States, there will naturally be less drug consumption. Demand-side efforts typically include treatment and prevention.<sup>92</sup> These approaches assume a constant supply of illicit drugs, but challenge individuals to reduce their inclination toward consumption.

School-based drug testing is a prevention approach designed to achieve three primary objectives. First, school drug testing is intended to act as a general deterrent. General deterrence is intended to reduce the general student body's proclivity to use illicit drugs through the *threat* of some sort of sanction (e.g., suspension from an athletic team). Second, school drug testing serves as a specific deterrent. Specific deterrence means that an individual student's proclivity to use illicit drugs again will be reduced through the actual infliction of some sort of sanction.<sup>93</sup> That is, having already experienced a

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<sup>91</sup> Michael D. Lyman & Gary W. Potter, *Drugs in Society* (Anderson Pub. Co. 1998).

<sup>92</sup> *Id.*

<sup>93</sup> Ronald L. Akers, *Criminological Theories* (Roxbury Pub. Co. 1997).

negative consequence for illicit drug use, the student will refrain from engaging in drug use again. Third, and perhaps most importantly, school drug testing is designed to stop any instant harm caused by illicit drug use ingestion (e.g., school absenteeism) and to identify, in advance of its development, the potential for a more serious drug use disorder. While the research evidence is clear that drug use does not always lead to the more serious problems of drug abuse or dependence,<sup>94</sup> there is also no dispute that persons in need of drug treatment began their path toward addiction with recreational use.

There are two key issues that will, ultimately, require resolution. First, *Earls* did not address whether a school drug testing protocol should involve students who are not extracurricularly-involved. The criminological literature is clear that these students are, relatively speaking, most at risk for illicit drug use. Given the three arguments on which the Court decided both *Vernonia* and *Earls* (privacy expectations, the nature of the intrusion, and the immediacy of the state's concern), it would be reasonable to allow schools to implement a random drug testing program for all students. Second, although *Vernonia* and *Earls* addressed the use of only illicit drugs, Hunterdon Central Regional High School recognized the high prevalence of alcohol use and abuse and expanded their drug testing protocol to include illicit drugs *and* alcohol. Among high school students, however, the use and associated problems of tobacco are also significant.<sup>95</sup> Given that the use of tobacco can be detected with a biological specimen, New Jersey schools should be encouraged to expand their testing protocol to include the range of alcohol, tobacco, and illicit drugs.

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<sup>94</sup> *Supra* note 91.

<sup>95</sup> *Supra* note 17.

Balancing privacy expectations, the nature of the intrusion, and the immediacy of the state's concern, the New Jersey Supreme Court has affirmed the constitutionality of school-based drug testing for extracurricularly-involved public students. Given the plethora of scholarly evidence that accurately describes the extent of the drug use problem in the United States, the decision in *Joye* was appropriate. Views to the contrary, grounded in Fourth Amendment protections, display an unsettling ignorance to the scourge of drug use problems that plague contemporary American society.