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LEGAL AND POLICY ISSUES IN EXPANDING THE SCOPE OF LAW ENFORCEMENT DNA DATA BANKS*

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INTRODUCTION

Modern DNA identification techniques were developed in the United Kingdom in the mid-1980s,¹ and were originally used in criminal investigations. It was not long before U.S. courts in criminal cases permitted expert testimony about the probability of a match between a defendant's DNA and DNA obtained from blood, semen, and other biological materials left at a crime scene.² Within a mere decade of its first appearance in court, virtually every jurisdiction in the United States had held that DNA identification evidence was admissible.³

When DNA evidence proved valuable in determining a match between DNA specimens left at a crime scene and DNA from suspects in custody, the next logical use of DNA identification was to link crime scene evidence with the DNA of individuals who were not yet suspected in the crimes. Indeed, DNA identification technology was initially used to find a serial rapist from among the population of three Leicestershire

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¹ See generally Alec Jeffreys et al., *Individual Specific "Fingerprints" of Human DNA*, 316 NATURE 76 (1985).

² See *Andrews v. State*, 533 So. 2d 841 (Fla. Dist. Ct. App. 1988) (affirming conviction in first reported U.S. case to admit DNA identification evidence).

³ 2 PAUL C. GIANNELLI & EDWARD J. IMWINKELRIED, *SCIENTIFIC EVIDENCE* § 18-5(A) (3d ed. 1999).

villages in England.⁴ In the United States, to facilitate suspicionless identification, or what has become known as "cold hits," it was necessary to develop a repository of DNA samples from known individuals with which crime scene evidence could be compared.⁵

After Congress appropriated funds to develop both a federal system run by the FBI and state systems,⁶ every state enacted the necessary enabling legislation to develop a linked system of DNA data banks.⁷ The original state laws were not identical in scope, but generally mandated that individuals convicted of sex offenses and a few other violent felonies, such as murder, were required to submit samples to the state for DNA analysis and storage in the state law enforcement data bank.⁸ Individuals convicted of sex offenses and other violent felonies were required to have their DNA analyzed because these crimes are often committed by recidivists, and the perpetrators are especially likely to leave DNA evidence at the crime scene.

The DNA data banks proved to be such a powerful law enforcement tool that within a few years many states amended their laws to expand the categories of crimes from which DNA samples were required.⁹ In many cases, the crimes bore little relationship to the initial justifications.¹⁰ Instead, it was asserted that perpetrators of less violent personal and property crimes, if not apprehended, would be likely to commit other, more violent crimes. Legal challenges to the state laws, even those with broader scope, were uniformly unsuccessful,¹¹ thus

⁴ See generally JOSEPH WAMBAUGH, *THE BLOODING* (1989).

⁵ The other main alternative, mass sweeps or screens, are of less value in a large, mobile population and may raise serious constitutional questions. Cf. *Davis v. Mississippi*, 394 U.S. 721 (1969) (rounding up and fingerprinting twenty-four black males after rape victim told police that her assailant was a black male violated the Fourth Amendment).

⁶ 42 U.S.C. § 1370 (1999) (appropriating \$20 million for the federal system and \$40 million for the states).

⁷ See *infra* Appendix, Tbl. 1.

⁸ See, e.g., KY. REV. STAT. ANN. § 17.170 (Michie 2000); UTAH CODE ANN. § 53-10-403 (2000).

⁹ See, e.g., N.M. STAT. ANN. §§ 29-16-3, -6 (Michie 2000); N.Y. EXEC. LAW § 995 (McKinney 2000).

¹⁰ See, e.g., ALA. CODE §§ 36-18-24, 13A-9-91 (2000) (illegal possession of food stamps); GA. CODE ANN. §§ 16-10-71, 24-4-60 (2000) (false swearing); WYO. STAT. ANN. §§ 6-2-402, 7-19-403 (Michie 2000) (blackmail).

¹¹ See *infra* notes 79-94 and accompanying text.

encouraging the notion that more comprehensive data banks are legally and socially acceptable.

It is understandable that some well-meaning public officials and legal scholars have advocated obtaining DNA samples from all individuals arrested for certain crimes or for any crime.¹² Inevitably, there will be calls for a universal DNA law enforcement data bank with samples from every resident of the country.¹³ Technically, this would be a massive but possible undertaking, and it might involve, for example, the use of newborn screening samples, and samples taken upon entry in school, application for a driver's license, or government benefits such as Social Security. In other countries, including the United Kingdom, Australia, Canada, and Germany, mass genetic sweeps (such as testing all adult males in a certain geographical area) have been used to solve crimes, although general data bases have not been established.¹⁴ DNA data banks of increasingly broad scope would help to solve more crimes,¹⁵ but at what cost to civil liberties?

Part I of this Article reviews the federal and state legal authority to establish DNA data banks for law enforcement. It then considers the constitutional arguments, primarily unreasonable search and seizure in violation of the Fourth Amendment, that have been raised in challenging existing laws. Because the Supreme Court has not yet decided any cases dealing with this precise issue, and because prior cases

¹² See Jayson Blair, *Police Chiefs Join in Call for More DNA Sampling*, N.Y. TIMES, Aug. 16, 1999, at B-5 (quoting N.Y. City Police Commissioner Howard Safir); Laylan Copelin, *Allow DNA Samples at Arrests, Officials Urge; Police Chief, DA Seek*, AUSTIN AMERICAN-STATESMAN, June 9, 2000, at A1 (reporting the views of Austin Police Chief Stan Knee and Travis County (Tex.) District Attorney Ronnie Earle).

¹³ See Akhil Reed Amar, *A Safe Intrusion*, AM. LAW., June, 2001, at 69 (advocating establishing DNA data bank for all citizens, but including some of the precautions suggested in this article, such as destruction of samples after analysis and analyzing only non-coding regions of the genome). See also *UK Police Chief Calls for a National DNA Database*, 400 NATURE 106 (1998). But see Teresa K. Baumann, Note, *Proxy Consent and a National DNA Databank: An Unethical and Discriminatory Combination*, 86 IOWA L. REV. 667, 675 (2001) (opposing national DNA data bank).

¹⁴ Jonathan Kimmelman, *Risking Ethical Insolvency: A Survey of Trends in Criminal DNA Databanking*, 28 J.L. MED. & ETHICS 209, 213 (2000).

¹⁵ This is certainly the assumption underlying the enactment of increasingly broad state laws and proposals to extend the scope of law enforcement DNA data banks. There is a dearth of empirical evidence, however, about the expected law enforcement benefits of ever-greater incursions into the privacy of greater numbers of individuals.

would support arguments upholding as well as striking down broader data banks, the outcome of a court challenge to a broader data bank law must be viewed as unclear at this time.

It is possible that a law establishing a broad DNA law enforcement data bank might be held constitutional even though it went beyond what is necessary or desirable. Therefore, Part II considers the policy issues at stake in DNA data banks. Besides the issue of from whom samples should be required, in this section we consider other significant issues, such as whether the samples should be destroyed after analysis or retained indefinitely, for what lawful purposes should the data be used, and whether current laws contain adequate sanctions for the improper use of the data.

The Article concludes that regardless of the constitutionality of broader data banks, public policy demands that only the DNA of convicted sex offenders and violent felons should be collected. The analytical methods should utilize technology that will disclose information useful only in identification and not in assessing current or predictive health status. Furthermore, once analyzed, the samples should be destroyed, thereby assuring the public that the samples cannot be reanalyzed for any other purpose.

I. LEGAL ISSUES

A. *The Legal Authority to Test*

The federal Violent Crime Control and Law Enforcement Act of 1994¹⁶ authorized the FBI to create a national data base of DNA samples taken from convicted offenders, crime scenes and victims of crimes, and unidentified human remains. As a result, the FBI established the Combined DNA Index System ("CODIS"), which had been in development as a pilot program since the early 1990s.¹⁷ The 1994 law also

¹⁶ 42 U.S.C. § 14132 (1999).

¹⁷ The FBI's CODIS system was started in 1989. Randall S. Murch & Bruce Budowle, *Are Developments in Forensic Applications of DNA Technology Consistent with Privacy Protections?*, in GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA 212, 220 (Mark A. Rothstein ed. 1997).

provided the funds for states to develop their DNA forensic capabilities, and the CODIS system allows state and local forensics laboratories to exchange and compare DNA profiles electronically, thereby creating a national DNA forensic system.¹⁸

The CODIS system is organized into four data bases: (1) convicted offenders, whose samples are taken upon conviction, incarceration, or release; (2) unsolved cases, which contains biological crime scene evidence; (3) missing persons data base, which contains both unidentified remains and profiles of parents of missing children; and (4) populations data base, which compiles the frequency of certain genetic markers among various populations.¹⁹ Entry into the system is restricted to specified crime laboratories, and security is further protected with the use of password access and encryption.²⁰

All fifty states have enacted laws requiring convicted offenders to provide DNA samples for analysis and entry into the CODIS system.²¹ Subsequent federal legislation also permitted the FBI to take DNA samples from individuals convicted of federal crimes of violence, robbery, and burglary, or similar crimes in the District of Columbia, or while in the military, and authorizing the information derived from the samples to be included in the CODIS system.²²

Despite being less than a decade old, many of the state laws authorizing the collection of DNA samples have been amended to expand the list of individuals from whom samples are required. As detailed in the Appendix, Table 1, as of January 2001, the categories of offenses and the number of states requiring samples from the individuals committing them is as follows: sex offenses (51); offenses against children (50); murder (42); assault and battery (35); juvenile delinquency (24); robbery (24); burglary (24); all felonies or violent felonies (12). Three states have enacted laws providing for the collection of DNA samples from individuals merely *arrested* for certain crimes, although South Dakota's law was later

¹⁸ 42 U.S.C. §14135 (1999).

¹⁹ 42 U.S.C. §14132 (1999).

²⁰ 42 U.S.C. §14131 (1999).

²¹ See *infra* Appendix, Tbl. 1.

²² DNA Analysis Backlog Elimination Act of 2000, Pub. L. No. 106-580, 114 Stat. 2726 (Dec. 29, 2000).

amended to apply only to individuals who have been convicted.²³ Louisiana's law authorizes the DNA testing and data banking of individuals arrested for felony sex offenses and other specified crimes.²⁴ California's law authorizes the DNA testing of "a suspect" for murder, voluntary manslaughter, felony spousal abuse, sexual assault of a child, kidnapping, mayhem, and torture.²⁵ The clear trend is to expand the categories of individuals from whom DNA samples are required.²⁶

B. *Legal Challenges*

State and federal DNA data banks have been challenged under a variety of circumstances and legal theories. The context for the challenges include the denial of good conduct time to prisoners who refuse to submit a DNA sample,²⁷ the use of force to obtain a DNA sample over the objection of a prisoner,²⁸ conditioning parole on submitting a DNA sample,²⁹ and using a sample as evidence in a subsequent criminal case.³⁰ The context for the challenge has not had any effect on the constitutional analysis used by the courts. Therefore, the merits of the various arguments will be discussed without a detailed discussion of the factual claims underlying the challenges.

²³ S.D. CODIFIED LAWS § 23-5-14 (Michie Supp. 1999) (deleting earlier provision permitting DNA testing of arrestees).

²⁴ LA. REV. STAT. ANN. § 15.609 (West 1999).

²⁵ CAL. PENAL CODE §§ 296, 296.1, 297, 298, 299, 299.5 (West 2001). "A suspect" is defined as "a person against whom an information or indictment has been filed for one of the crimes listed A person shall remain a suspect for two years from the date of the filing of the information or indictment or until the DNA laboratory receives notification that the person has been acquitted or the charges dismissed." *Id.* at § 297 (B)(3).

²⁶ In 2000, nineteen states considered bills to expand the categories of offenders from whom DNA samples are required and eight states enacted legislation. In 2001, 110 bills have been introduced in thirty-five states to include more offenders, and it is estimated that twenty-two states will enact legislation. Tim Schellberg, DNA Database Expansion in the 2001 State Legislatures (Presentation at the National Institute of Justice's Second Annual Grantees' Workshop June 8, 2001).

²⁷ See *Ewell v. Murray*, 11 F.3d 482 (4th Cir. 1993).

²⁸ See *Sanders v. Coman*, 864 F. Supp. 496 (E.D.N.C. 1994).

²⁹ See *Dial v. Vaughn*, 733 A.2d 1 (Pa. Commw. Ct. 1999).

³⁰ See *Johnson v. Commonwealth*, 529 S.E.2d 769 (Va.) *cert. denied*, 121 S. Ct. 432 (2000).

The DNA data bank statutes have been challenged on several federal and state constitutional grounds. State constitutional arguments have generally tracked the federal arguments and neither have met with any success. The most important argument is that DNA data bank laws are unconstitutional because they amount to an unreasonable search and seizure in violation of the Fourth Amendment.

1. Unreasonable Search and Seizure

The most frequently raised argument, and the most substantial one, is that obtaining a DNA sample and using the genetic information derived from the sample constitutes an unreasonable search and seizure. The Fourth Amendment of the United States Constitution prohibits unreasonable searches and seizures³¹ and applies to the states via the Fourteenth Amendment.³² Although nonconsensual searches conducted outside the judicial process are per se unreasonable,³³ nothing in the Fourth Amendment expressly prohibits government searches without a warrant. The Fourth Amendment prohibits only searches that are unreasonable.³⁴ The Supreme Court has interpreted the Fourth Amendment as establishing rules and presumptions that limit the government's ability to intrude upon matters of personal privacy.³⁵ The scope of its protections are broad, encompassing searches by police, school officials, government employers, and others. The Supreme Court has applied the Fourth Amendment in circumstances ranging from border searches and DWI and narcotics checkpoints, to police surveillance

³¹ U.S. CONST. amend. IV. The Fourth Amendment provides:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Id.

³² U.S. CONST. amend. XIV § 1 provides that no State shall "deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws." *Id.*

³³ See *Wong Sun v. United States*, 371 U.S. 471, 481-82 (1963).

³⁴ See *Illinois v. McArthur*, 121 S. Ct. 946, 949 (2001) (citing *Texas v. Brown*, 460 U.S. 730, 739 (1983)).

³⁵ See *McArthur*, 121 S. Ct. at 949.

techniques and, most recently, to a hospital's sharing with law enforcement the drug screens of its maternity patients.³⁶

CODIS implicates the Fourth Amendment because the bodily intrusion required to obtain DNA from a convicted offender constitutes a search under the Fourth Amendment. This section first examines how courts have viewed physically intrusive searches within the traditional Fourth Amendment context, which requires some level of individualized suspicion of wrongdoing. Next, this section examines circumstances under which courts have allowed physically intrusive searches absent individualized suspicion after balancing the degree of intrusion upon personal privacy against the government interest at stake, and includes a discussion of the balancing test as applied in the DNA data bank cases. A few courts have compared DNA sampling to the fingerprinting process, which may not trigger Fourth Amendment analysis at all. That viewpoint is presented here as well, as are other constitutional claims that have been raised in the DNA data bank cases.

a. Bodily Intrusion in the Fourth Amendment Context

Where the Supreme Court has condoned government infringement upon bodily integrity, it has done so either because police possessed some degree of individualized suspicion of wrongdoing or because the search was justifiable as an exception to the Fourth Amendment's warrant requirement. Early cases held that the Fourth Amendment was implicated only upon a physical trespass of tangible property, under the theory that superior property interests controlled the right of the individual to prevent government searches.³⁷ Later cases extended Fourth Amendment protection to items seized without technical trespass.³⁸ Then, in the landmark case of *Katz v. United States*,³⁹ the Court explained that although what a person chooses to expose to the public

³⁶ See generally *Ferguson v. City of Charleston*, 121 S. Ct. 1281 (2001).

³⁷ See *Olmstead v. United States*, 277 U.S. 438, 464-66 (1928) (holding there was no constitutional violation without physical trespass of person or property).

³⁸ See *Silverman v. United States*, 365 U.S. 505, 511 (1961) (deciding that oral statements overheard without technical trespass was a seizure under the Fourth Amendment).

³⁹ 389 U.S. 347 (1967).

has no Fourth Amendment protection, those things that a person seeks to preserve as private are constitutionally protected.⁴⁰ The *Katz* standard requires that a person have a subjective expectation of privacy and that this expectation be one that society would recognize as reasonable.⁴¹ Under this standard, the government may compel handwriting or voice exemplars without implicating the Fourth Amendment because one has no reasonable expectation of privacy in one's handwriting or voice, since both are constantly exposed to the public.⁴²

When a government intrusion goes beyond the physical characteristics exposed to the public, it constitutes a search subject to constitutional scrutiny. Even when the intrusion is minimal, some level of individualized suspicion is required. For example, the Supreme Court, in *Davis v. Mississippi*,⁴³ noted that the fingerprinting process "involves none of the probing into an individual's private life and thoughts that marks an interrogation or search."⁴⁴ Nonetheless, the Court held that the police violated the Fourth Amendment when they illegally detained a person without probable cause in order to take his fingerprints.⁴⁵ The Court noted in dictum, however, that in "narrowly defined circumstances" it may be reasonable to compel fingerprints on something less than probable cause.⁴⁶

⁴⁰ *Id.* at 352.

⁴¹ *See id.* at 361. (Harlan, J., concurring); *See, e.g., California v. Greenwood*, 486 U.S. 35, 41 (1988); *California v. Ciraolo*, 476 U.S. 207, 211 (1986); *Oliver v. United States*, 466 U.S. 170, 177 (1984).

⁴² *See United States v. Dionisio*, 410 U.S. 1, 14 (1973) (holding that voice exemplar compelled by grand jury was not constitutionally protected because appearance before a grand jury was not a seizure, but a historical obligation, and a person has no reasonable expectation that others will not know the sound of a voice that is exposed to the public at large); *see also United States v. Mara*, 410 U.S. 19, 21 (1973) (stating that no showing of reasonableness is required to compel handwriting because there is no expectation of privacy in its physical characteristics).

⁴³ 394 U.S. 721 (1969).

⁴⁴ *Id.* at 727.

⁴⁵ *Id.* at 728.

⁴⁶ *Id.* at 727. Fingerprinting is frequently cited as an analogous technology that is widely accepted as unintrusive and highly accurate. Yet, the accuracy of fingerprinting has increasingly come under attack. *See Andy Newman, Fingerprinting's Reliability Draws Growing Court Challenges*, N.Y. TIMES, Apr. 7, 2001, at A7.

Under traditional Fourth Amendment analysis, when the government wishes to intrude below the surface of the skin, or into an area where the expectation of privacy is great, at a minimum, probable cause is required. The Supreme Court has held that where police had probable cause to believe a suspect committed a murder, it was constitutionally reasonable to take fingernail scrapings from the suspect as evidence of the murder.⁴⁷ The Court noted, however, that unlike the fingerprinting in *Davis*, searching under one's fingernails goes beyond physical characteristics that are exposed to the public, and constitutes the "severe, though brief intrusion upon cherished personal security that is subject to constitutional scrutiny."⁴⁸

Courts typically interpret the Fourth Amendment to require a warrant where bodily intrusion is involved. One court held a warrant was required to swab the inside of a suspect's mouth to obtain a saliva sample.⁴⁹ The court reasoned that one's saliva contains a significant amount of private genetic identity information, and saliva is not an item generally exposed to the public, even though the act of expectorating is somewhat commonplace.⁵⁰ Swabbing the inside of a person's mouth with a pad to obtain the saliva, the court noted, implicates one's dignity interest; thus, a warrant was required to obtain the sample.⁵¹ On the other hand, one state supreme court reasoned that by talking and yawning, the inside of the mouth was exposed to public view, and that swabbing the inside of the mouth was less intrusive than piercing the skin to draw blood.⁵² Still, this court required the lesser standard of reasonable suspicion to support an order compelling a suspect to submit to the collection of cheek epithelial cells by swabbing the inside of his mouth.⁵³

⁴⁷ *Cupp v. Murphy*, 412 U.S. 291, 296 (1973) (taking fingernail scrapings was reasonable where police had probable cause to believe the suspect committed a murder, the scrapings would reveal the perpetrator, the suspect was already voluntarily at the station house, and the evidence was subject to destruction).

⁴⁸ *Id.* at 295 (quoting *Terry v. Ohio*, 392 U.S. 1, 24-25 (1968)).

⁴⁹ *See United States v. Nicolosi*, 885 F. Supp. 50, 51 (E.D.N.Y. 1995).

⁵⁰ *See id.* at 55.

⁵¹ *See id.* at 55-56.

⁵² *See In re Nontestimonial Identification Order Directed to R.H.*, 762 A.2d 1239, 1244 (Vt. 2000) [hereinafter *Nontestimonial Identification*].

⁵³ *See id.*

Certainly, privacy interests are implicated when skin is pierced for the compulsory administration of a blood test, and a warrant is required in the absence of exigent circumstances.⁵⁴ When bodily fluids undergo chemical analysis to obtain physiological data, a further intrusion upon privacy interests occurs.⁵⁵ Bodily integrity concerns also arise when one is compelled to expel "alveolar or 'deep lung' breath for chemical analysis."⁵⁶

Courts consider intrusions that implicate privacy and dignity interests to be searches implicating Fourth Amendment protections, even when the skin is not pierced. For example, courts hold that a showing of probable cause is required to compel a pubic hair sample, because the search involves an area of the body traditionally concealed from public view as a matter of personal privacy.⁵⁷ Similarly, the Supreme Court has described the privacy interests inherent in a compelled urine sample as a "host of private medical facts . . . which might be revealed by the chemical analysis of the sample fluid, as well as a process of collecting such a sample which may involve visual or aural monitoring of the act of urination"⁵⁸

Some government searches may be so physically intrusive as to be unreasonable even when the government has probable cause. In *Winston v. Lee*,⁵⁹ the Court held that an arrestee's privacy interest in avoiding surgery to remove a bullet from his collarbone outweighed the state's interest in recovering the bullet to use as evidence of his guilt. The Court found that a potential danger from exposure to general anesthesia existed, and the government had sufficient evidence of guilt to prosecute the arrestee without the bullet.⁶⁰

⁵⁴ See *Schmerber v. California*, 384 U.S. 757, 767 (1966).

⁵⁵ See *Skinner v. Ry. Labor Exec. Ass'n*, 489 U.S. 602, 616 (1989).

⁵⁶ *Id.* at 616-17.

⁵⁷ See *Nontestimonial Identification*, 762 A.2d at 1241 (citing *State v. Towne*, 615 A.2d 484, 492 (1992)).

⁵⁸ *Skinner*, 489 U.S. at 617.

⁵⁹ 470 U.S. 753 (1985).

⁶⁰ See *id.* at 765-66.

b. *Exceptions to the Fourth Amendment's Warrant Requirement: The Balancing Test*

In certain narrowly-defined circumstances, the Supreme Court has authorized searches in the absence of individualized suspicion of wrongdoing, even when bodily intrusion is involved. The Court has held that the government need not have individualized suspicion of wrongdoing when the balance of interests weighs in the government's favor. Courts must balance the degree of intrusion upon an individual's privacy against the government interest at stake.⁶¹ These searches are usually, but not always, conducted by officials other than the police, in situations where the government's purpose would be frustrated by requiring probable cause. Furthermore, these cases differ from those involving traditional law enforcement activity in that the search is for evidence for administrative or regulatory purposes, rather than aimed at the discovery of a specific crime;⁶² thus, the typical warrant and probable cause requirements are relaxed.

The Supreme Court has applied the balancing test in a wide range of circumstances, including housing safety inspections,⁶³ inspections of closely regulated businesses,⁶⁴ various checkpoint inspections,⁶⁵ school disciplinary searches,⁶⁶

⁶¹ The origin of the balancing test can be traced to *Camara v. Municipal Court*, 387 U.S. 523 (1967). In that case, the Court held that a Department of Public Health inspector could inspect an apartment for housing code violations without a warrant. In carving out an exception to the warrant requirement, the Court stated: "[T]here can be no ready test for determining reasonableness other than by balancing the need to search against the invasion which the search entails." *Id.* at 536-37.

⁶² *Id.* The *Camara* Court found the warrantless housing inspection reasonable where the result could not be achieved any other way, and the neutral inspection plan was "neither personal in nature nor aimed at the discovery of evidence of crime" *Id.*

⁶³ See *id.*

⁶⁴ See, e.g., *United States v. Biswell*, 406 U.S. 311, 317 (1972) (upholding warrantless entrance to gun store to inspect documents and gun licenses).

⁶⁵ See, e.g., *Michigan Dep't of State Police v. Sitz*, 496 U.S. 444, 453 (1990) (discussing a sobriety checkpoint); *Delaware v. Prouse*, 440 U.S. 648, 653-54 (1979) (suggesting that roadblock for purpose of vehicle license and registration check is constitutional if according to policy that eliminates individual officer discretion); *United States v. Martinez-Fuerte*, 428 U.S. 543, 566-67 (1976) (involving a checkpoint to detect and deter flow of illegal immigrants); see also *United States v. Lopez*, 328 F. Supp. 1077, 1092 (E.D.N.Y. 1971) (discussing airport passenger screening); see generally CHARLES WHITEBREAD & CHRISTOPHER SLOBOGIN, *CRIMINAL PROCEDURE* §13.06 (2000).

workplace investigations,⁶⁷ and probation supervision.⁶⁸ Certain cases characterize the government interest as one of "special needs, beyond the normal need for law enforcement."⁶⁹ Perhaps the most often cited "special needs" case is *Skinner v. Railway Labor Executives' Association*.⁷⁰

In *Skinner*, the Court recognized the government's "special need" to protect the public from railroad employees who may be under the influence of drugs or alcohol during their work hours. The Court upheld federal regulations requiring that railroad officials collect blood, breath, and urine from employees involved in railway accidents, for drug and alcohol testing, without a warrant, without probable cause, and without individualized suspicion.⁷¹ The Court explained that the purpose of the regulation requiring the testing was not to assist in the prosecution of employees, but rather to further the government's special need to investigate railroad accidents and to prevent injuries that could result if employees were impaired by drugs or alcohol.⁷² Under these circumstances, the Court reasoned, requiring a warrant would not provide protection against arbitrary and random government acts because the standardized testing regulations themselves left no facts for a neutral magistrate to evaluate.⁷³ The Court stated

⁶⁶ See *New Jersey v. T.L.O.*, 469 U.S. 325, 339-40 (1985).

⁶⁷ See *Skinner*, 489 U.S. at 620 (taking blood urine and breath tests of employees for public safety purposes); *Nat'l Treasury Employees Union v. Von Raab*, 489 U.S. 656, 668 (1989) (using urine testing of U.S. Customs employees to deter drug use among officers); *O'Connor v. Ortega*, 480 U.S. 709, 719-20 (1987) (conducting workplace search for evidence of non-criminal conduct).

⁶⁸ See *Griffin v. Wisconsin*, 483 U.S. 868, 872-73 (1987) (upholding warrantless search of probationer's home by probation officer upon reasonable grounds to believe probation violated).

⁶⁹ *Nat'l Treasury Employees Union*, 489 U.S. at 665 ("Our cases establish that where a Fourth Amendment intrusion serves special governmental needs, beyond the normal need for law enforcement, it is necessary to balance the individual's privacy expectations against the Government's interests to determine whether it is impractical to require a warrant. . .").

The term "special needs" is most often attributed to Justice Blackmun's concurring opinion in *T.L.O.* where he stated: "Only in those exceptional circumstances in which special needs, beyond the normal need for law enforcement, make the warrant and probable cause requirement impracticable, is a court entitled to substitute its balancing interests [for the warrant requirement]." *T.L.O.*, 469 U.S. at 352 (Blackmun, J. concurring).

⁷⁰ 489 U.S. 602 (1989).

⁷¹ See *id.* at 613.

⁷² See *id.* at 620-21.

⁷³ See *id.* at 621-24.

that "where the privacy interests implicated by the search are minimal, and where an important government interest furthered by the intrusion would be placed in jeopardy by a requirement of individualized suspicion, a search may be reasonable despite the absence of such suspicion."⁷⁴

The "special needs" doctrine was further articulated in a companion case to *Skinner* in *National Treasury Employees Union v. Von Raab*.⁷⁵ *Von Raab* involved the collection of urine specimens from U.S. Customs Service employees to check for drug use, without a warrant or individualized suspicion.⁷⁶ The "special need" of the government in this case was to assure that the Customs officers, who were responsible for confiscating illegal drugs, were not themselves using drugs.⁷⁷ The Court explained that the government need was greater than the normal needs of law enforcement because the purpose was to deter drug use among officers seeking promotion to certain sensitive positions, and not to prosecute employees for a particular crime.⁷⁸

(1) Intrusiveness of the Search: The Data Bank Cases

Government infringement on genetic or informational privacy has been virtually ignored by courts addressing the constitutionality of state law enforcement DNA statutes.⁷⁹ Most courts conclude that the actual physical intrusion is minimal and convicted offenders already have reduced general privacy rights due to their offender status.

In judging the degree of intrusiveness, courts examine the nature of the search and the circumstances surrounding the search and seizure.⁸⁰ Most courts rely on the Supreme Court's analysis of bodily intrusion in the law enforcement

⁷⁴ *Id.* at 624.

⁷⁵ 489 U.S. 656 (1989).

⁷⁶ *See id.* at 665-72.

⁷⁷ *See id.* at 671, 672, 679.

⁷⁸ *See id.* at 679.

⁷⁹ The dissent in *Dial v. Vaughn*, 733 A.2d 1, 11 (Pa. Commw. Ct. 1999), notes that "once scientists are able to map human DNA, DNA samples will reveal everything about a person, including race, appearance, and predisposition to disease The majority does not consider this potential expansive intrusion into a prisoner's privacy from DNA testing, but I cannot ignore it."

⁸⁰ *See Skinner*, 489 U.S. at 633.

context presented in *Schmerber v. State of California*⁸¹ in finding that a blood test presents only a minimal intrusion.⁸² The Court, in *Schmerber*, held that it was reasonable under the Fourth Amendment to take blood involuntarily from a suspected drunk driver at the emergency room of a hospital.⁸³ In analyzing the degree of intrusiveness, the Court noted that blood tests have become routinely required of one entering the military service or applying for a marriage license.⁸⁴ Moreover, the Court noted that millions of people voluntarily become blood donors.⁸⁵ In addition, when the blood is taken by a physician in a hospital environment, and according to "accepted medical practices," courts have found the circumstances of the search and seizure are reasonable under the Fourth Amendment.⁸⁶ Several courts also cite the Supreme Court's decision in *Winston v. Lee*,⁸⁷ for the proposition that "blood tests do not constitute an unduly extensive imposition on an individual's personal privacy and bodily integrity."⁸⁸ One court, without analysis, found that only minimal bodily intrusion was required where a DNA saliva sample was obtained by rubbing the inside of the cheeks with a sponge on a toothbrush-like handle for approximately fifteen seconds.⁸⁹ Another court stated that, given the procedural safeguards in the state statute, which limit analysis to identification, a DNA blood test is more like a fingerprint or voice exemplar because it involves "none of the probing into an individual's life and thoughts that marks an interrogation or a search."⁹⁰

⁸¹ 384 U.S. 757 (1966).

⁸² See, e.g., *People v. Wealer*, 636 N.E.2d 1129, 1136 (Ill. App. Ct.), *appeal denied*, 642 N.E.2d 1299 (Ill. 1994) (observing that physical intrusion of blood test to be used for DNA profiling is "relatively slight and poses no threat to the health or safety of the individual tested").

⁸³ See *Schmerber*, 384 U.S. at 772.

⁸⁴ See *id.* at 771 n.13 (citing *Breithaupt v. Abraham*, 352 U.S. 432, 436 (1957)).

⁸⁵ *Id.* at 771.

⁸⁶ *Id.*

⁸⁷ 470 U.S. 753 (1985).

⁸⁸ *Id.* at 762; see *Juvenile Dep't of Multnomah County v. Orozco*, 878 P.2d 432, 436 (Or. Ct. App. 1994); see also *In re Appeal in Maricopa County Juvenile Action No. JV 96-0020*, 930 P.2d 496, 500-01 (Ariz. App. 1996).

⁸⁹ See *Shelton v. Gudmanson*, 934 F. Supp. 1048, 1050-51 (W.D. Wis. 1996) (dicta suggesting that a cheek swab could be held to be more like fingerprints, and may not even constitute a search under the Fourth Amendment).

⁹⁰ *Orozco*, 878 P.2d at 435 (quoting *Davis*, 394 U.S. at 727); see also *Rise v. Oregon*, 59 F.3d 1556, 1562 (9th Cir. 1995) (noting that the information derived is

With new technology, the physical intrusions required in collecting DNA may be de minimis.⁹¹ If the courts balance this minimal physical intrusion against the governmental interest, then even broader DNA testing for law enforcement may be upheld. Yet, the intrusion of the search should be viewed in more general terms. Thus, the courts have examined the intrusion on the general privacy of the offender who is required to comply with the statutorily mandated DNA test. For example, the court in *People v. Wealer*⁹² found only minimal intrusion on a convicted offender's privacy rights because the DNA test is analogous to fingerprinting for identification purposes, and an offender has only a minimal interest in his or her identity after a criminal conviction. Even when convicted persons are released on parole, they have a diminished expectation of privacy in their identity as compared to free persons.⁹³ In relying on *Schmerber* and *Winston*, the courts have ignored that, in both cases, the government had probable cause to believe the arrestee committed a crime, that the evidence sought was evidence of that crime, and that the Court emphasized the affront to bodily integrity and dignity interests in both cases.⁹⁴

substantially the same as that derived from fingerprinting—"a unique identifying marker"); *Jones v. Murray*, 962 F.2d 302, 307 (4th Cir. 1992).

⁹¹ See, e.g., Roland A.H. von Oorschot & M.K. Jones, *DNA Fingerprints from Fingerprints*, 387 NATURE 767 (1997) (describing techniques for obtaining DNA by amplifying oil in skin deposited by making a fingerprint). In some instances, the DNA analysis will not require any additional intrusion, such as when part of a specimen collected for one purpose, for example, newborn screening, is simply used for a law enforcement DNA data bank.

⁹² 636 N.E.2d 1129, (Ill. Ct. App.), *appeal denied*, 642 N.E.2d 1299 (Ill. 1994).

⁹³ See *id.* at 1137.

⁹⁴ See *Schmerber*, 384 U.S. at 770-771. In *Schmerber*, the Court found the blood extraction reasonable because police had probable cause to believe the arrestee committed a crime, and the blood was evidence of that crime. The Court noted that "[t]he interests in human dignity and privacy which the Fourth Amendment protects forbid any such intrusions on the mere chance that desired evidence might be obtained." *Id.* at 760-70. In *Winston v. Lee*, 470 U.S. 753, 760-61 (1985), the Court recognized that probable cause was required "where intrusions into the human body are concerned," which implicate "deep-rooted expectations of privacy."

(2) The Government Interest: The Data Bank Cases, *City of Indianapolis v. Edmond*, and *Ferguson v. City of Charleston*

The convicted offender data bank cases have uniformly declared significant government interests in identifying and prosecuting criminals and deterring recidivist acts,⁹⁵ deterring and prosecuting unsolved and future criminal acts,⁹⁶ preserving a permanent identification record for identifying felons who may have otherwise altered their identify, and improving law enforcement.⁹⁷ Those courts attempting to characterize the government interest as a "special need" beyond normal law enforcement have had a particularly difficult time in reconciling the concept of identification and prosecution of criminals as something other than "law enforcement." For example, in *State v. Olivas*,⁹⁸ which upheld the Washington DNA testing statute, the court stated that the purpose of the DNA data bank was to deter and prosecute recidivist acts, and that this purpose was a "special need" of government beyond "normal" law enforcement. Even so, the *Olivas* court admitted that the reasoning in *Skinner* and *Von Raab*, where drug tests were used only for deterrence of employee drug use, and not for prosecution, could not be applied squarely to a DNA testing case.⁹⁹

Another court, noting that the purpose of the Pennsylvania DNA testing statute was to be "a tool in criminal investigations and for deterrence of recidivist crime,"¹⁰⁰ held the statute constitutional under the Fourth Amendment in light of the government's "special need" to maintain an identification system to facilitate the purpose of the statute.¹⁰¹ One court

⁹⁵ See, e.g., *Rise*, 59 F.3d at 1562 (describing the government interest as "the public's incontestable interest in preventing recidivism and identifying and prosecuting murderers and sexual offenders"); see also *Roe v. Marcotte*, 193 F.3d 72, 79 (2d Cir. 1999); *State v. Olivas*, 856 P.2d 1076, 1085 (Wash. 1993).

⁹⁶ See, e.g., *Boling v. Romer*, 101 F.3d 1336, 1340 (10th Cir. 1997).

⁹⁷ *Jones*, 962 F.2d at 307.

⁹⁸ 856 P.2d 1076, 1085-86 (Wash. 1993). The *Olivas* court relied on the "special needs" analysis in *Jones v. Murray*, 962 F.2d 302, although it noted that the *Jones* court declined to resolve its case using this analysis, choosing instead to focus on the diminished privacy rights of convicted offenders.

⁹⁹ *Olivas*, 856 P.2d at 1085.

¹⁰⁰ *Dial*, 733 A.2d at 3.

¹⁰¹ See *id.* at 6-7. Although the court cites *Bell v. Wolfish*, 441 U.S. 520 (1979), (rather than the *Turner* test), it makes no attempt to justify the test based on any

stated unequivocally that the state's DNA testing of prison inmates was "ultimately for a law enforcement goal," yet the court reasoned that the statute still fit within the "special needs" analysis because it was "not undertaken for the investigation of a *specific* crime."¹⁰²

The court in *Roe v. Marcotte*¹⁰³ extended the "special needs" doctrine a step further. First, the court recognized that the "special needs" cases involving prisons were not precisely on point because the purpose of the state DNA statute was not related to protecting inmate health or safety, or concerns for institutional order or discipline.¹⁰⁴ Yet, the court reasoned, the statute may still be constitutional if there is "some other significant governmental interest in the form of 'special needs beyond normal law enforcement,' even if those 'special needs' are not directly tied to institutional concerns."¹⁰⁵

(3) The Identification Exception

Courts reviewing the convicted offender DNA data bank cases have consistently held that government-compelled DNA extraction constitutes a search subject to Fourth Amendment analysis.¹⁰⁶ In light of rapid technological advancements, however, DNA may soon be extracted with virtually no bodily intrusion. If the government could take one's DNA without intrusion upon one's personal security or privacy expectations, then, arguably, no Fourth Amendment violation would exist. Moreover, the government has a legitimate interest in identifying the individuals it arrests or convicts. Identifying information would be essential in the event of a prisoner escape, or where the prisoner's physical appearance is altered.

Taking fingerprints or photographs upon arrest has not been held to violate the Fourth Amendment.¹⁰⁷ Under the same

penological objective.

¹⁰² *Shelton v. Gudmanson*, 934 F. Supp. 1048, 1050 (W.D. Wis. 1996) (construing Wisconsin's DNA testing statute) (emphasis added).

¹⁰³ 193 F.3d 72 (2d Cir. 1999).

¹⁰⁴ *See id.* at 78.

¹⁰⁵ *See id.* at 79.

¹⁰⁶ *See supra*, Part I.B.1.a.

¹⁰⁷ *See Smith v. United States*, 324 F.2d 879, 882 (D.C. Cir. 1963) ("it is elementary that a person in lawful custody may be required to submit to . . . fingerprinting . . . as part of the routine identification process."); *see also Napolitano v.*

reasoning, one could argue that taking DNA in a non-intrusive manner solely for identification purposes most likely would not violate the Fourth Amendment. Several courts bolster this point by focusing on the reduced expectation of privacy an offender has in his or her identity. In the earliest case to address the constitutionality of a state DNA testing statute, the Fourth Circuit, in *Jones v. Murray*,¹⁰⁸ based its decision upholding the Virginia statute on the diminished privacy rights of convicted prisoners. The court reasoned that when a person is arrested, the arrestee's identity becomes a matter of government interest, and the arrestee must submit to fingerprinting whether or not the crime involved fingerprint evidence.¹⁰⁹ The court held that when an offender is lawfully in state custody, "[a]s with fingerprinting, . . . the Fourth Amendment does not require an additional finding of individualized suspicion before blood can be taken from incarcerated felons for the purpose of identifying them."¹¹⁰

Similarly, the Ninth Circuit, in *Rise v. Oregon*,¹¹¹ analogized taking DNA from a convicted offender to taking fingerprints, noting that, although taking fingerprints from a "free person" implicated privacy rights and required probable cause, this was not the case when fingerprints were routinely taken from arrestees for identification purposes during the booking process.¹¹² Once convicted, the court reasoned, one's identity is a matter of state interest, and the offender "has lost any legitimate expectation of privacy in the identifying information derived from blood sampling."¹¹³ Moreover, in *Landry v. Attorney General*,¹¹⁴ the Massachusetts Supreme Judicial Court held that taking a DNA sample is only minimally more intrusive than taking and storing fingerprints or photographs, and this minimal intrusion is only for the

United States, 340 F.2d 313, 314 (1st Cir. 1965) ("Taking fingerprints [prior to bail] is universally standard procedure, and no violation of constitutional rights").

¹⁰⁸ 962 F.2d 302 (4th Cir.), cert. denied, 506 U.S. 977 (1992).

¹⁰⁹ See *id.* at 306.

¹¹⁰ *Id.* at 306-07.

¹¹¹ 59 F.3d 1556 (9th Cir. 1995), cert. denied, 517 U.S. 1160 (1996) (noting that once arrested, individuals have a lesser expectation of privacy in their identity, and thus in their fingerprints as a record of their identity, whether or not the criminal investigation involves fingerprint evidence).

¹¹² *Id.* at 1560.

¹¹³ *Id.*

¹¹⁴ 709 N.E.2d 1085 (Mass. 1999), cert. denied, 528 U.S. 1073 (2000).

purpose of adding to a record of identity and is not a search for evidence. The *Landry* court reasoned that the convicted offender's low expectation of privacy in his identity was outweighed by the state's interest in preserving a permanent identification record of convicted offenders to resolve past and future crimes.¹¹⁵ Where the state has traditionally used fingerprints for this purpose, the court announced, it would now use DNA identification.¹¹⁶

2. Other Legal Challenges

a. *Equal Protection*

The Fourteenth Amendment to the U.S. Constitution provides that no state shall "deny any person within its jurisdiction the equal protection of the laws."¹¹⁷ Some inmates have argued that state laws requiring DNA samples only from certain classes of offenders treat them differently from others offenders not required to provide DNA samples.¹¹⁸ Because the classification of "sex offender" or "murderer" is based on the nature of the inmate's offense and not on a suspect class (such as race), these challenges to the DNA statutes receive "rational basis" review.¹¹⁹ Under this test, the statute is presumed valid if the offender classification is rationally related to a legitimate state interest.¹²⁰ Courts reviewing inmates' equal protection claims consistently find a rational relationship between the government's classification of certain offenders and the

¹¹⁵ See *id.* at 1092.

¹¹⁶ See *id.*; see also *Boling*, 101 F.3d at 1340 (holding that information derived from DNA blood sample is substantially the same as the identifying information derived from fingerprinting); *Johnson v. Virginia*, 529 S.E.2d 769, 779 (Va. 2000) (following *Jones v. Murray*, holding in the case of minimal privacy afforded convicted felons, minimal intrusion of DNA blood test outweighed by Virginia's interest in improved law enforcement); *Shelton v. Gudmanson*, 934 F. Supp. 1048 (W.D. Wis. 1996) (using a cheek swab to obtain DNA could be viewed as part of identification process rather than as search).

¹¹⁷ U.S. CONST. amend. XIV.

¹¹⁸ See, e.g., *Marcotte*, 193 F.3d at 82; *Boling*, 101 F.3d at 1341.

¹¹⁹ See *Marcotte*, 193 F.3d at 72 (citing *Artway v. Attorney General*, 81 F.3d 1235, 1267 (3d Cir. 1996) (holding that sex offenders are not a suspect class for purposes of equal protection analysis)).

¹²⁰ See *Bankers Life & Cas. Co. v. Crenshaw*, 486 U.S. 71, 81 (1988).

government's objective to investigate and prosecute similar classes of unsolved and future crimes.¹²¹

b. *Cruel and Unusual Punishment*

The Eighth Amendment prohibits government imposition of cruel and unusual punishment.¹²² A prison inmate has an Eighth Amendment claim when actions of prison officials amount to the "unnecessary and wanton infliction of pain,"¹²³ or when officials act with "deliberate indifference" to serious medical needs¹²⁴ or act "maliciously and sadistically to cause harm."¹²⁵ The alleged deprivation must be sufficiently serious to deny "the minimal civilized measure of life's necessities."¹²⁶ Inmate challenges to DNA data bank statutes have alleged, among other things, that prison officials used excessive force to obtain DNA samples, that an inmate's rights were violated when he was placed indefinitely in administrative segregation until he consented to provide a DNA sample,¹²⁷ and that the actual blood test itself constituted cruel and unusual punishment.¹²⁸ Courts have rejected these arguments and viewed an inmate's refusal to provide a DNA sample as a refusal to comply with a direct administrative

¹²¹ See *Boling*, 101 F.3d at 1341; see also *Rise*, 59 F.3d at 1561 (holding statute's requirement to obtain DNA samples from inmates convicted of murder of sex offenses bore rational relationship to the public interest in identifying and prosecuting murders and sex offenders).

¹²² U.S. CONST. amend. VIII.

¹²³ *Whitley v. Albers*, 475 U.S. 312, 319 (1986).

¹²⁴ *Estelle v. Gamble*, 429 U.S. 97, 106 (1976).

¹²⁵ *Hudson v. McMillian*, 503 U.S. 1, 7 (1992).

¹²⁶ *Farmer v. Brennan*, 511 U.S. 825, 834 (1994).

¹²⁷ See *Cooper v. Gammon*, 943 S.W.2d 699, 707 (Mo. App. 1997).

¹²⁸ *Kruger v. Erickson*, 875 F. Supp. 583, 588 (D. Minn. 1995), *aff'd on other grounds*, 77 F.3d 1071 (8th Cir. 1996) (finding unconsented drawing of prisoner's blood by trained technician in accordance with medically acceptable procedures did not amount to the wanton infliction of pain under the Eighth Amendment); *Ryncarz v. Eikenberry*, 824 F. Supp. 1493, 1501 (E.D. Wash. 1993) (concluding that inmate's claims that he was placed in full physical restraints prior to blood draw, officials used unsanitized needle, and that his blood vessels ruptured, resulting in internal scars, hemorrhaging, and impaired movement of his left arm, were not sufficiently harmful to amount to deliberate indifference to serious medical needs under the Eighth Amendment).

order, and state statutes typically permit the use of force by prison officials to ensure compliance with lawful orders.¹²⁹

c. Ex Post Facto

The Ex Post Facto Clause of the United States Constitution¹³⁰ prohibits the states from "retroactively alter[ing] the definition of crimes or increas[ing] the punishment for criminal acts."¹³¹ Even though state DNA statutes typically apply to persons convicted prior to the statute's enactment, courts have not found violation of the Ex Post Facto Clause as long as the statute does not amend the state's substantive criminal laws and the statute's "overall design and effect" indicates a "non-punitive intent."¹³² Statutes requiring certain offenders to provide a DNA sample for the data bank are considered administrative, rather than penal.¹³³ Thus, when a prisoner loses "good-time credit" for refusing to submit to DNA sampling, the Ex Post Facto Clause is not violated.¹³⁴ Just as an inmate is awarded good-time credit for compliance with administrative regulations, one court reasoned, he can lose credit for non-compliance.¹³⁵ However, in *Jones v. Murray*,¹³⁶ the court held the Ex Post Facto Clause was violated where an inmate's statutorily mandated release date was delayed when he refused to provide a DNA sample. At the time the inmate was sentenced, a statute mandated parole six

¹²⁹ See *Sanders v. Coman*, 864 F. Supp. 496, 500 (E.D.N.C. 1994) (holding that DNA procedure is a lawful administrative order, and may be enforced the same way as other lawful orders of prison officials, according to state statute that expressly permits the use of force to ensure compliance); see also *Ewell v. Murray*, 11 F.3d 482 (4th Cir. 1993).

¹³⁰ U.S. CONST. art. I, § 10., cl. 1 ("No state shall . . . pass any . . . ex post facto Law").

¹³¹ *Collins v. Youngblood*, 497 U.S. 37, 43 (1990).

¹³² See, e.g., *Rise*, 59 F.3d at 1562 (declaring Ex Post Facto Clause not violated where purpose of data bank statute was to assist in identification, arrest, and prosecution of criminals, rather than to punish offenders) (quoting *United States v. Huss*, 7 F.3d 1444, 1447 (9th Cir. 1993)).

¹³³ See *Ewell v. Murray*, 11 F.3d 482, 487 (4th Cir. 1993) (holding prison regulation allowing loss of good-time credit and possible placement in isolation for up to fifteen days for refusal to provide DNA sample was a reasonable prison regulation and did not violate ex post facto clause).

¹³⁴ See *id.*

¹³⁵ *Id.*

¹³⁶ 962 F.2d 302 (4th Cir. 1992).

months prior to the inmate's release date. A subsequent statute was passed requiring the inmate to provide a blood sample as a condition of his release from custody. The court held that the statute was *ex post facto* because it denied the inmate a sentence benefit that he had at the time the offense was committed.¹³⁷

d. *Self-Incrimination*

The Fifth Amendment privilege against self-incrimination protects an accused's right to remain silent unless he or she chooses to speak.¹³⁸ The government may not compel an accused to testify against himself or herself, or to provide the state with testimonial evidence or evidence of a communicative nature,¹³⁹ such as incriminating private books and records.¹⁴⁰ The privilege does not, however, protect an accused against compulsion to produce a voice exemplar,¹⁴¹ submit to fingerprinting, photography, measurements, to appear in court, to stand, to walk, or to make a particular gesture.¹⁴² Neither does the Fifth Amendment protect the accused from the compelled production of blood¹⁴³ or urine.¹⁴⁴ Courts examining the constitutionality of the state data bank statutes have consistently held that the DNA contained in one's blood or saliva is non-testimonial, and no Fifth Amendment privilege is violated.¹⁴⁵

¹³⁷ *Id.* at 310.

¹³⁸ U.S. CONST. amend. V. The Fifth Amendment to the United States Constitution provides that no person "shall be compelled in any criminal case to be a witness against himself . . ." See also *Schmerber v. California*, 384 U.S. 757, 760-61 (1966).

¹³⁹ *Schmerber*, 384 U.S. at 761.

¹⁴⁰ See *Dionisio*, 410 U.S. at 11 (citing *Boyd v. United States*, 116 U.S. 616, 634-35 (1886)) (stating that government could not compel accused to produce incriminating invoices).

¹⁴¹ *Id.* at 15.

¹⁴² *United States v. Wade*, 388 U.S. 218, 223 (1967) (recognizing that federal and state courts have held the Fifth Amendment "offers no protection against compulsion to submit to fingerprinting, photography, or measurements. . . to appear in court, to stand, to assume a stance, to walk, or to make a particular gesture").

¹⁴³ See *Schmerber*, 384 U.S. at 761.

¹⁴⁴ See *Lucero v. Gunter*, 17 F.3d 1347, 1350 (10th Cir. 1994) (finding urine is non-testimonial in nature; thus prisoner's compelled urine for drug test raised no Fifth Amendment challenge).

¹⁴⁵ See *Shaffer v. Saffle*, 148 F.3d 1180 (10th Cir. 1998); *Boling v. Romer*, 101

e. *Procedural and Substantive Due Process*

The Fourteenth Amendment provides that no state shall "deprive any person of life, liberty, or property, without due process of law. . . ."¹⁴⁶ Offenders' procedural due process claims focus on their denial of notice or a hearing before they are compelled to provide a DNA sample. The argument that one state's DNA statute violated an inmate's due process rights because it did not require that notice be given to individuals whose DNA is seized was rejected because the statute itself provided notice that all convicted felons would be required to give a blood sample for DNA analysis.¹⁴⁷ Similarly, an inmate's complaint that the Due Process Clause required prison officials to provide him with a hearing before forcing him to provide a blood sample was rejected because the state's DNA statute required only a conviction for a predicate offense before a DNA sample was required; thus, there was nothing to be contested at a hearing.¹⁴⁸ For the same reason, another court rejected an inmate's claim that prison officials deprived him of a property interest in his blood without due process or just compensation.¹⁴⁹

The Supreme Court has interpreted the Fourteenth Amendment's guarantee of "due process of law" as including a substantive component.¹⁵⁰ Substantive due process rights are violated by government actions that "offend those canons of decency and fairness which express the notions of justice,"¹⁵¹ and refer to those constitutional guarantees that are "implicit in the concept of ordered liberty."¹⁵² In *Rochin v. California*,¹⁵³ the Court held that the Due Process Clause was violated when police handcuffed a suspect, took him to a hospital, and had his stomach forcibly pumped to reveal two morphine capsules.¹⁵⁴

F.3d 1336 (10th Cir. 1996); *Cooper v. Gannon*, 943 S.W.2d 699 (Mo. Ct. App. 1997); *Johnson v. Virginia*, 529 S.E.2d 769 (Va. 2000).

¹⁴⁶ U.S. CONST. amend. XIV.

¹⁴⁷ See *Johnson*, 529 S.E.2d at 780.

¹⁴⁸ See *Rise*, 59 F.3d at 1562-63.

¹⁴⁹ See *Boling*, 101 F.3d at 1340-41.

¹⁵⁰ See, e.g., *Bowers v. Hardwick*, 478 U.S. 186, 191 (1986).

¹⁵¹ *Rochin v. California*, 342 U.S. 165, 169 (1952) (quoting *Malinski v. New York*, 324 U.S. 401, 416-17 (1945)).

¹⁵² *Palko v. Connecticut*, 302 U.S. 319, 325 (1937).

¹⁵³ 342 U.S. at 165.

¹⁵⁴ *Id.* at 166.

The Court stated that such behavior “shocks the conscience”¹⁵⁵ and “offends a sense of justice”¹⁵⁶ and amounted to a confession wrested from defendant’s body by physical abuse.¹⁵⁷ In contrast, courts have rejected inmate claims under due process analysis, finding that no due process violation occurs when blood is drawn for DNA analysis according to medically acceptable protocols.¹⁵⁸

f. Separation of Powers

Under the doctrine of separation of powers, also called the “inviolability of final judgment” rule, a court’s final judgment, which includes the defendant’s sentence, may not be altered by subsequent legislative changes.¹⁵⁹ In a Pennsylvania case, an inmate challenged a state statute providing that a prisoner who refuses to submit to DNA testing must remain confined until serving the maximum sentence.¹⁶⁰ The court held that the statute did not violate the separation of powers doctrine because it did not alter the inmate’s parole eligibility date nor his maximum sentence.¹⁶¹ The power to parole, reasoned the court, is an administrative function that depends on compliance with many different prison rules and administrative requirements, and the state statute presented an administrative requirement that must be satisfied prior to release.¹⁶²

However, the Illinois Supreme Court held that a state statute requiring the court to use its contempt power to enforce administrative orders to collect blood samples from convicted offenders was unconstitutional under the Illinois constitution’s separation of powers provision.¹⁶³ That court noted, however, that the blood collection program could still be executed independently of the unconstitutional contempt provision.¹⁶⁴

¹⁵⁵ *Id.* at 172.

¹⁵⁶ *Id.* at 173 (quoting *Brown v. Mississippi*, 297 U.S. 278, 285-86 (1936)).

¹⁵⁷ *Id.* at 167.

¹⁵⁸ *See, e.g., Kruger*, 875 F. Supp. at 587.

¹⁵⁹ *See Dial v. Vaughn*, 733 A.2d 1 (Pa. 1999).

¹⁶⁰ *See id.* at 4.

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Murnmeigh v. Gainer*, 685 N.E.2d 1357, 1364-67 (Ill. 1997).

¹⁶⁴ *Id.*

3. The Constitutionality of Expanded DNA Law Enforcement Data Banks

Equal protection, cruel and unusual punishment, ex post facto, self-incrimination, due process, and separation of powers claims have made virtually no headway in the lower courts, and the Supreme Court has given no indication that constitutional challenges to state DNA data bank laws on these grounds would be successful. Should the Court grant review on the issue of the constitutionality of expanded DNA law enforcement data banks, it is most likely to do so to consider Fourth Amendment issues. Two recent decisions of the Court raise serious questions about the "government interest" aspect of the balancing test applied by the lower courts in the Fourth Amendment data bank cases.

In *City of Indianapolis v. Edmond*,¹⁶⁵ motorists brought a class action against the city, alleging that its drug interdiction checkpoint violated their rights under the Fourth Amendment.¹⁶⁶ The city conceded that the goal of the checkpoint program was to catch drug offenders.¹⁶⁷ The Court began its analysis with an overview of the "limited circumstances" in which a suspicionless search is reasonable, citing the employee drug testing cases of *Von Raab* and *Skinner*, as well as the Court's early roadblock and checkpoint cases.¹⁶⁸ The Court stated that in none of these cases had it ever indicated approval of a checkpoint program "whose primary purpose was to detect evidence of ordinary criminal wrongdoing."¹⁶⁹ The Court said that in the checkpoint cases the government interest was specific and the program was related to that interest, for example, policing the Nation's borders where stemming illegal immigration could not be accomplished any other way; reducing the immediate hazard posed by drunk drivers on the highways where there was an obvious connection between highway safety and the checkpoint

¹⁶⁵ 532 U.S. 32 (2000). Although *Edmond* is a narcotics checkpoint case, the majority of databank cases cite to the early checkpoint cases as the authority for the balancing test that is applied to suspicionless searches.

¹⁶⁶ *Id.* at 36.

¹⁶⁷ *Id.* at 40.

¹⁶⁸ *Id.* at 37.

¹⁶⁹ *Id.* at 38.

program; and allowing vehicle inspections because proper licensing and registration is related to highway safety.¹⁷⁰ These interests, according to the Court, were distinct from the general purpose of investigating crime. The city's narcotics checkpoint program differed from the previous cases because its primary purpose was "to advance the general interest in crime control."¹⁷¹

The city argued that its checkpoint program was justified by a lawful secondary purpose of checking vehicles and keeping impaired drivers off the road, but the Court dismissed this point, stating that "[i]f this were the case . . . law enforcement authorities would be able to establish checkpoints for virtually any purpose so long as they also included a license or sobriety check."¹⁷² The Court held that the city's program was unconstitutional under the Fourth Amendment because its primary purpose was "ultimately indistinguishable from the general interest in crime control"¹⁷³ Absent some indicia of individualized suspicion, the search was illegal. The *Edmond* case, therefore, calls into question the reasoning of the courts in essentially all of the DNA data bank cases with respect to their characterization of the "government interest" side of the balancing test, which is "virtually indistinguishable from the general interest in crime control."

More recently, in *Ferguson v. City of Charleston*,¹⁷⁴ the Supreme Court applied the *Edmond* "primary purpose test" to a case described by the lower court as a "special needs" case. In *Ferguson*, a state university hospital tested the urine of certain of its obstetrical patients suspected of drug use and notified police of positive drug screens. The hospital conducted the drug tests in accordance with a hospital policy developed in conjunction with law enforcement officials. Maternity patients arrested after testing positive for cocaine challenged the hospital's policy, claiming the drug tests were an unconstitutional search under the Fourth Amendment.¹⁷⁵ The

¹⁷⁰ *Edmond*, 532 U.S. at 38-39.

¹⁷¹ *Id.* at 44 (quoting *Prouse*, 440 U.S. at 649 n.18).

¹⁷² *Id.* at 46.

¹⁷³ *Id.* at 48.

¹⁷⁴ 121 S. Ct. 1281 (2001).

¹⁷⁵ See *id.* at 1284. For purposes of its Fourth Amendment analysis, the Court assumed the patients had not consented to the drug testing.

hospital policy provided for, among other things, a chain of custody for the urine sample so it could be used in later prosecutions, a range of possible criminal charges, and police notification and patient arrest after a positive test.¹⁷⁶ The city argued that the hospital policy met the special needs exception to the Fourth Amendment's warrant requirement because the hospital had a need to facilitate the mother's drug treatment, and to protect the mother and unborn child—a need the hospital claimed was distinct from the normal needs of law enforcement.¹⁷⁷

The Supreme Court held that the hospital policy violated the Fourth Amendment. The Court noted the extensive involvement of police and prosecutors throughout the development of the policy and it held that although the ultimate goal of the hospital policy may have been to get the women off drugs and into a substance abuse program for the benefit of both mother and baby, the policy was unconstitutional because "the immediate objective of the searches was to generate evidence for *law enforcement purposes*"¹⁷⁸ The Court said that "virtually any nonconsensual suspicionless search could be immunized under the special needs doctrine by defining the search solely in terms of its ultimate, rather than immediate, purpose."¹⁷⁹ The Court distinguished its other special needs cases, which had legitimate civil objectives, and did not involve the extensive entanglement of law enforcement as did this case.¹⁸⁰

Edmond and *Ferguson* raise serious Fourth Amendment concerns with respect to the constitutionality of the data bank laws, and even greater concerns as to the constitutionality of state statutes that require DNA from certain classes of offenders upon arrest.¹⁸¹ Virtually all of the lower courts considering the question agree that the bodily intrusion involved in extracting DNA constitutes a search, and that the

¹⁷⁶ See *id.* at 1285.

¹⁷⁷ See *id.* at 1286.

¹⁷⁸ *Id.* at 1291 (emphasis in original).

¹⁷⁹ *Ferguson*, 121 S. Ct. at 1292.

¹⁸⁰ See *id.*

¹⁸¹ The Louisiana statute provides: "A person who is arrested for a felony sex offense . . . shall have a DNA sample drawn or taken at the same time he is fingerprinted pursuant to the booking procedure." LA. REV. ANN. STAT. § 15:609(A) (West 2000).

primary government purpose is general crime control and investigation—now an unconstitutional “primary purpose” under *Edmond* and *Ferguson*. Thus, courts seem to be faced with two choices: either distinguish these Supreme Court cases characterizing the primary purpose of the DNA data bank to be something other than general crime control, or view DNA sampling under the identification exception.

It is uncertain how the courts would reconcile *Edmond* and *Ferguson* with the existence of the DNA data bank. Perhaps courts could more easily hold the data bank constitutional if it were limited to profiles of sex offenders and violent felons, as opposed to the “all felonies” allowed by seven states.¹⁸² If statistics supported the likelihood of recidivism and that these particular criminals were more likely to leave DNA at the crime scene, then perhaps the “primary purpose” of the data bank program could be characterized as controlling recidivism of these specific classes of offenders, rather than the unconstitutional purpose of general crime control. Even so, this analysis is tenuous in light of the recent Supreme Court cases.

A second possibility would be for the courts simply to view DNA sampling as a relatively non-invasive administrative means of identification which, like fingerprints or photographs, does not implicate the Fourth Amendment. Courts have not viewed piercing the skin to draw blood as particularly intrusive as long as medically accepted practices are employed, and using a buccal swab to obtain a DNA sample from saliva is even less intrusive. Under the identification exception, then, the government could compel a DNA sample from all persons whom it has a legitimate need to identify. Arguably, DNA could be taken subsequent to an arrest based upon probable cause, digitalized, stored, and accessed to solve past and future crimes, all without running afoul of the Fourth Amendment, so long as the primary purpose of the initial testing was identification.¹⁸³

¹⁸² See *infra*, Appendix, Tbl. 1.

¹⁸³ The Supreme Court's most recent decision on the expectation of privacy for Fourth Amendment purposes is *United States v. Kyllo*, 121 S. Ct. 2038 (2001). The Court held, five-to-four, that police officers violated the Fourth Amendment when they used a thermal imaging scanner outside of a home in an effort to detect the presence of high intensity lights used to grow marijuana indoors.

A broad, fingerprint-like identification exception would ignore the fundamental differences between DNA and fingerprints. A fingerprint reveals only unique patterns of loops and whorls. In contrast, a DNA sample is the information-containing blueprint of human life, revealing one's genetic predisposition to disease, physical and mental characteristics, and a host of other private facts not evident to the public. Unlike fingerprint analysis, DNA analysis does not necessarily end with a DNA identification profile. Typical law enforcement practice today is to retain the subject's DNA sample indefinitely because of the possibility that technological advancements might require re-testing of the samples.¹⁸⁴ Indefinite sample retention increases the opportunity for misuse or abuse of the samples and intrusion on the privacy of individuals providing the identifiable samples. Moreover, many state statutes allow access to the samples for undefined law enforcement purposes¹⁸⁵ and humanitarian identification purposes,¹⁸⁶ or authorize the use of samples for assisting medical research¹⁸⁷ or to support identification research and protocol development.¹⁸⁸ No statutes provide for the informed consent of the DNA donors prior to conducting such research.¹⁸⁹ Unlike the laboratory analysis of fingerprints, the Supreme Court has recognized that a laboratory analysis of blood and other bodily fluids constitutes a "second search" subject to the

¹⁸⁴ The F.B.I. is opposed to the destruction of stored DNA samples. Reasons for opposition include: (1) to maintain uniformity among the states because virtually all states require sample retention; (2) to avoid the prohibitive cost of re-typing convicted offenders once they have been released from prison, should it be necessary; (3) to assure data base consistency among the states in light of technological advances; (4) to allow re-checking a hit against the sample to assure a sample has not been mistyped, thus avoiding the release of a person's name to law enforcement personnel by mistake; and (5) that it is safe to retain samples because no abuse of stored samples has been reported in over ten years of databasing. Dr. Tom Callaghan, Federal Bureau of Investigation, Program Manager, Federal Convicted Offender Database, Statement before the National Commission on the Future of DNA Evidence (Sep. 26, 1999), available at <http://www.ojp.usdoj.gov/nij/dna> (last visited April 8, 2001).

¹⁸⁵ See, e.g., TEX. GOV'T CODE ANN. § 411.147(e) (Vernon 2000).

¹⁸⁶ See, e.g., LA. REV. STAT. ANN. § 15:611 (West 2000).

¹⁸⁷ See ALA. CODE § 36-18-20 (b) (2000); ALA. CODE §§ 36-38-24 (a) and (c)(2000).

¹⁸⁸ See IND. CODE. § 10-1-9-13 (a)(3)(B) (2000).

¹⁸⁹ Federal law requires the informed consent of persons prior to their participation in medical research. Serious issues pertaining to informed consent are raised by some state DNA data bank statutes, but that discussion is beyond the scope of this article.

Fourth Amendment's reasonableness requirement.¹⁹⁰ Thus, any reasonableness determination ought to include an analysis of the use that law enforcement authorities intend to make of the DNA sample.¹⁹¹

II. POLICY ISSUES

A. *The Scope of Law Enforcement DNA Data Banks*

The constitutionality of expanding the scope of law enforcement data banks will remain unresolved in the absence of a definitive ruling by the Supreme Court. Despite constitutional issues of some gravity, it is quite possible that expanded data banking would be upheld by the Supreme Court. Just because a law is constitutional, however, does not necessarily mean that it reflects sound public policy. Thus, legislators, law enforcement officials, and all citizens interested in DNA forensics need to consider a range of issues in addition to predictions about whether a proposed law is constitutional.

In little more than a decade, DNA has proven to be the most powerful forensic tool ever developed. It is this power to convict the guilty and exonerate the innocent that has provided the impetus to expand the scope of data banks beyond sex offenders.¹⁹² In 2000, in response to a request from then-Attorney General Janet Reno, the U.S. National Commission on the Future of DNA Evidence considered whether data banks should be expanded to include samples from arrestees. The Commission recommended against including arrestees on the ground that there were already hundreds of thousands of

¹⁹⁰ See *Skinner*, 489 U.S. at 616-17 ("The ensuing chemical analysis of the sample to obtain physiological data is a further invasion of the tested employee's privacy interests It is not disputed . . . that chemical analysis of urine, like that of blood, can reveal a host of private medical facts about an employee, including whether he or she is epileptic, pregnant, or diabetic.").

¹⁹¹ See generally Harold J. Kent, *Of Diaries and Data Banks: Use Restrictions Under the Fourth Amendment*, 74 TEX. L. REV. 49 (1995).

¹⁹² The power of DNA technology to exonerate previously convicted individuals has led to legislation authorizing the DNA testing of evidence from prior crimes to determine whether any convictions were in error. See, e.g., 725 ILL. COMP. STAT. § 5/116-3 (2000); MINN. STAT. § 590.01 (2000); N.Y. CRIM. PROC. LAW § 440.30 (2001).

samples waiting to be analyzed and there was no practical way that the state crime laboratories could process more samples.¹⁹³ Such a concern is likely to be transitory or amenable to resolution through increased funding. Therefore, the issues still need to be addressed directly from a policy rather than a practical standpoint.

The argument in favor of expanding the scope of the data banks is easy to characterize. The more samples in the data bank, the greater the likelihood of a match or "cold hit."¹⁹⁴ This is a reasonable inference, but there is little empirical evidence.¹⁹⁵ If public policy must balance a range of increasingly intrusive options to individual rights against the asserted benefits to law enforcement, it is incumbent upon those advocating an expansion of police powers to demonstrate how substantial public interests in deterrence and justice are fostered by expanded DNA data banks.

A variety of arguments have been raised in opposition to expanding the scope of the DNA data banks. Some commonly raised objections are that samples could be analyzed to reveal future health risks¹⁹⁶ and that this information might be disclosed to third parties such as insurers and employers,¹⁹⁷ that the information could be used for research into purported genetic links to criminality,¹⁹⁸ and that the information could be

¹⁹³ Recommendation of the National Commission on the Future of DNA Evidence to the Attorney General Regarding Arrestee DNA Sample Collection (2000), available at <http://www.ojp.usdoj.gov/nij/dna/arrestrc.html> (last visited April 8, 2001).

¹⁹⁴ As of October 13, 1998, CODIS had generated more than 400 "cold hits." Press Release, U.S. Dep't of Justice, FBI, Oct. 13, 1998.

¹⁹⁵ According to Paul Ferrera, Director of the Virginia Division of Forensic Science, 85% of hits would have been missed if the data bank were limited only to violent offenders. A Florida study reportedly showed that 52% of Florida offenders linked to sexual assaults and homicides by DNA data base matches had prior burglary convictions, a non-violent offense. Schellberg, *supra* note 26, at 23.

¹⁹⁶ Paul Giannelli et al., *Genetic Information, Law, Legal Issues in Law Enforcement DNA Databases*, in 1 *ENCYCLOPEDIA OF ETHICAL, LEGAL, AND POLICY ISSUES IN BIOTECHNOLOGY* 413 (Thomas H. Murray & Maxwell J. Mehlman eds. 2000); Eric T. Juengst, *I-DNA-Fication, Personal Privacy, and Social Justice*, 75 *CHI-KENT L. REV.* 61 (1999); Testimony of Barry Steinhardt, Assoc. Dir., American Civil Liberties Union, before House Judiciary Committee Subcommittee on Crime, Mar. 23, 2000 [hereinafter Steinhardt Testimony].

¹⁹⁷ Giannelli et al., *supra* note 196; Paul A. Lombardo, *Genetic Confidentiality: What's the Big Secret?*, 3 *U. CHI. LAW SCH. ROUNDTABLE* 589 (1996); Steinhardt Testimony, *supra* note 196.

¹⁹⁸ See Michelle Hibbert, *DNA Databanks: Law Enforcement's Greatest Surveillance Tool?*, 34 *WAKE FOREST L. REV.* 767, 817-21 (1999); Juengst, *supra* note

used for child support or immigration purposes. These and related concerns about improper uses of DNA samples would be eliminated if only noncoding regions of DNA were analyzed and the samples were destroyed after analysis.¹⁹⁹ What would remain would be a computerized code of numbers with no value whatsoever beyond identification.²⁰⁰

Even the above safeguards are unlikely to convince individuals who believe that the balance between law enforcement and civil liberties would be tilted too far in the

196; Steinhardt Testimony, *supra* note 196.

¹⁹⁹ In the last few years, both the forensic testing community in the United States and commercial vendors have agreed on the use of a standardized set of thirteen core short tandem repeat ("STR") loci for forensic cases. STR markers are tandemly repeated sequences of two to six base pair units, and alleles are typically 100-400 base pairs in size. These STR loci typically contain between seven and fifteen alleles. Of the thirteen core STRs in use, twelve are located in non-coding regions. JOHN M. BUTLER, *FORENSIC TYPING BIOLOGY AND TECHNOLOGY BEHIND STR MARKERS* 322 (2001). Thus, the issue of non-coding regions is largely addressed by current technology, but the laws do not require the use of non-coding regions and new technology could use coding regions.

²⁰⁰ In his commentary on our article, David H. Kaye, *Two Fallacies About DNA Data Banks for Law Enforcement*, 67 BROOK. L. REV. 179 (2001), Professor Kaye criticizes our proposal to use only non-coding regions of the genome for analysis. He agrees with our general concern that only those portions of the genome that indicate future health or other features of social concern should be analyzed. Yet, he cannot resist quibbling with our definition of non-coding regions and with our underlying rationale. He offers no evidence of the need to use coding regions and fails to give any weight to public concerns about possible uses of the test results beyond law enforcement.

Our proposal to use only non-coding regions of the genome for analysis takes into account the public's concerns about possible discriminatory use of genetic information or improper behavioral genetic research. Professor Kaye would require us to cite examples of genetic discrimination or behavioral genetic research run amok. But he misses the point. In determining social policy, it is important that the public accept the government action. The public is extremely concerned about possible misuse of genetic information. That is why many at-risk individuals decline genetic testing and why, despite a paucity of incidents of discrimination, most states have enacted laws prohibiting genetic discrimination in employment and health insurance. The current STR loci do not use coding regions (with only one exception, the CSF1PO marker). BUTLER, *supra* note 199. It is unnecessary to use non-coding regions now (no matter how defined), and it is unlikely that it will be necessary to use non-coding regions in the future. We believe that the principle of using the least intrusive method of analysis consistent with the needs of law enforcement is widely supported by the law enforcement community, *see infra*, note 209 and accompanying text, as well as the public. Our proposal seeks to prevent the future use of coding regions. We believe that using non-coding regions increases the social acceptability of a DNA data bank of any scope. Professor Kaye actually weakens his case for broader data banks by choosing to contest this issue. *Cf. Amar, supra* note 13, at 69 (arguing for national data bank and using only "junk DNA" for analysis).

direction of law enforcement if broader DNA data banks were established. The opportunity to solve more crimes would not justify having every citizen's DNA analyzed for law enforcement purposes.

In deciding challenges to existing data bank laws, several judges have expressed concerns about possible expansions of the data banks. For example, in *Jones v. Murray*,²⁰¹ the United States Court of Appeals for the Fourth Circuit upheld the constitutionality of the Virginia data bank law, which requires samples from all felons, even those who have been convicted of nonviolent crimes. The decision to include all felons in the data bank was made for administrative convenience, rather than to improve law enforcement. The dissenting judge wrote that the case

leads me to a deep, disturbing, and overriding concern that, without a proper and compelling justification, the Commonwealth may be successful in taking significant strides toward establishment of a future police state, in which broad and vague concerns for administrative efficiency will serve to support substantial intrusions into the privacy of citizens.²⁰²

In *State v. Olivas*,²⁰³ in upholding the Washington statute, the concurring opinion stated: "We would be appalled, I hope, if the State mandated non-consensual blood tests of the public at large for purposes of developing a comprehensive Washington DNA databank."²⁰⁴

We are willing to concede that a nationwide data bank is likely to be valuable to law enforcement personnel. Having such value is an important but not necessarily determinative factor in deciding the appropriate scope of the data bank. A

²⁰¹ 962 F.2d 302 (4th Cir. 1992).

²⁰² *Id.* at 315 (Murnaghan, J., concurring in part and dissenting in part).

²⁰³ 856 P.2d 1076 (Wash. 1993).

²⁰⁴ *Id.* at 1094 (Utter, J., concurring). The proposal for a nationwide identification data bank would not be without precedent. For example, in 1943, Senator William Langer of North Dakota introduced legislation to mandate a nationwide fingerprinting system. S. 1191, 78th Cong., (1943) (proposing a bill to require certain persons within the United States to carry identification cards and be fingerprinted for other purposes). As with other similar bills, this legislation was not acted on. It is not clear whether there would be any political support today for a mandatory, nationwide DNA law enforcement data bank. It is possible that the public would support any law expanding the testing of offenders or even arrestees, but resist including all of the population.

variety of law enforcement methods we deem socially unacceptable (if not unconstitutional), if used, would likely lead to more convictions and perhaps even a reduction in crime. Some law enforcement measures used in other parts of the world would not be countenanced here. Although a coerced confession, for example, is quite different from compiling a large-scale DNA data bank, the broad issue of societal values pertains to both. As one commentator argued, "Ultimately, determining who should be in a forensic DNA data bank will require balancing the quantifiable law enforcement benefits that large data banks can confer against the less quantifiable, but nonetheless real, risks to civil liberties that they may implicate."²⁰⁵

B. *Other Issues*

Regardless of the scope of law enforcement DNA data banks, other issues need to be addressed in balancing the interests of law enforcement against individual interests in privacy. The following measures should be implemented.

1. Sample collection - Current collection methods use both blood samples and buccal swabs. Using buccal swabs is less invasive, which minimizes sample source objections and legal challenges.
2. Analytical methods - Current analytical methods use polymerase chain reaction ("PCR"), restriction fragment length polymorphism ("RFLP"), and short tandem repeat ("STR") technologies.²⁰⁶ Analytical methods should be standardized, and STR represents the best current technology.²⁰⁷

²⁰⁵ Jean E. McEwen, *DNA Data Banks*, in *GENETIC SECRETS: PROTECTING PRIVACY AND CONFIDENTIALITY IN THE GENETIC ERA* 236 (Mark A. Rothstein ed. 1997).

²⁰⁶ See National Commission on the Future of DNA Evidence, *The Future of Forensic DNA Testing: Predictions of the Research and Development Working Group 1-3* (2000) [hereinafter *The Future of Forensic DNA Testing*].

²⁰⁷ See *id.* See also *supra* note 199.

3. DNA to be analyzed - Only non-coding regions of DNA²⁰⁸ should be used for analysis, thereby ensuring that the only possible use of the DNA analysis is identification.²⁰⁹

The use of noncoding regions is endorsed by experts at the FBI. According to two leading DNA forensic experts for the FBI:

Unlike medically oriented DNA analyses, forensic DNA typing does not derive the donor's predisposition to genetic diseases or the expression of genetic disease conditions. The genetic loci used in forensic DNA typing are selected for certain attributes, which include genetic variability among individuals, stability, and ease of assay. The majority of genetic markers used in DNA typing are noncoding segments in the human genome. No known function encoded in these repetitive DNA sequences might predispose an individual to a particular disease or attribute.²¹⁰

²⁰⁸ The human genome is comprised of exons (1.1%), introns (24%), and intergenic DNA (75%). J. Craig Venter et al., *The Sequence of the Human Genome*, 291 Sci. 1304, 1305 (2001). Exons are the regions of genes that code for the production of proteins. Therefore, the exons are the "coding" regions that contain information about current or future gene products that may be expressed phenotypically. Introns are the non-coding regions that separate one exon of the gene from another. Intergenic DNA is noncoding and comprises a majority of the genome; although sometimes referred to as "junk DNA," additional research is likely to reveal both the functional and evolutionary significance of these regions.

²⁰⁹ See *supra* note 200.

²¹⁰ Randall S. Murch & Bruce Bodowle, *Are Developments in Forensic Applications of DNA Technology Consistent with Privacy Protections?*, in GENETIC SECRETS, *supra* note 205, at 224 (Randall S. Murch, Ph.D., is Chief, Scientific Analysis Section, FBI; Bruce Budowle, Ph.D., is Chief, Forensic Science Research Unit, FBI).

4. Laboratory certification - All laboratories maintaining forensic DNA data bases should be certified and adhere to the highest standards of technical proficiency, including quality assurance and quality control protocols.²¹¹ The American Society of Crime Laboratory Directors—Laboratory Accreditation Board accredits forensic laboratories.
5. Statistical and Reporting Issues - All statistical methodologies used for determining a match between a crime scene or other sample and a DNA profile in the data bank should adhere to the latest scientific principles.²¹²
6. Destruction of samples - Law enforcement officials, including the FBI, favor retaining samples indefinitely for quality assurance and re-typing the samples in the event of changing technology.²¹³ Twenty-nine state laws either authorize or require that agencies retain samples after analysis; only one state (Wisconsin) requires the destruction of samples, and no samples have actually been destroyed.²¹⁴ The retention of samples, however, even under conditions of stringent security, raises concerns among the public that the samples could be re-analyzed for purposes other than identification. Therefore, samples should be destroyed immediately after analysis.

²¹¹ See generally Ad Hoc Committee on Individual Identification by DNA Analysis, *Individual Identification by DNA Analysis: Points to Consider*, 46 AM. J. HUMAN GENETICS 631 (1991) (encouraging laboratory quality). Two FBI-appointed groups, the Technical Working Group on DNA Analysis Methods ("TWGDAM") and the DNA Advisory Board ("DAB") also encourage laboratories to seek accreditation.

²¹² See *The Future of Forensic DNA Testing*, *supra* note 206, at 56-68; David H. Kaye & George F. Sensabaugh, Jr., *Reference Guide on DNA Evidence*, in FEDERAL JUDICIAL CENTER, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 516-48 (2d ed. 2000).

²¹³ See *The Future of Forensic DNA Testing*, *supra* note 206, at 36.

²¹⁴ Kimmelman, *supra* note 14, at 211.

It is important to keep in mind that retaining the original sample in a forensic DNA repository for possible reanalysis is not necessary to prevent erroneous matches. If a suspect whose DNA is matched to crime scene evidence believes that the match is erroneous, the suspect can merely provide a new sample for comparison. Only the crime scene evidence needs to be retained. Consequently, destruction of the sample after analysis provides further assurance that the sample will not be reanalyzed for an improper purpose without interfering with the lawful use of the sample by law enforcement. "The National Academy of Sciences, recognizing the risks to privacy and individual autonomy that stored DNA samples can present, has recommended that samples taken from convicted offenders for data banks be destroyed 'promptly' after being analyzed."²¹⁵

7. Access to data bank - Access to the data banks should be limited to law enforcement personnel, and data banks should not be used for any purpose other than identification, including research.²¹⁶ It is well settled that government funded or sponsored research involving human subjects requires voluntary, informed consent.²¹⁷ Legally-mandated consent or coerced consent from offenders as a condition of their release would not satisfy this standard. More fundamentally, as a matter of policy if not law, to justify a governmental intrusion there should be a compelling government interest. With certain limitations, law enforcement would be such an

²¹⁵ McEwen, *supra* note 205, at 238 (citing DNA TECHNOLOGY IN FORENSIC SCIENCE (1995)).

²¹⁶ Only four states (Indiana, IND. CODE § 10-1-9-18 (Burns 2000); New York, N.Y. EXEC. § 995-d (McKinney Supp. 2001); Rhode Island, R.I. GEN. LAWS § 12-1.5-10(2)(d) (2000); and Wyoming, WYO. STAT. ANN. § 7-19-404(c) (Lexis 2001)) currently prohibit forensic DNA samples to be used to derive health information. Ohio allows its data bank to be used in proceedings establishing paternity or maternity. OHIO REV. CODE ANN. § 109.573 (1997). New Jersey and Maryland allow access to the data bank to determine parentage if there is a court order. MD. CODE ANN., art. 88B, § 12A(K)(iv); MD. CODE ANN. FAMILY LAW § 5-1029 (1999); N.J. STAT. ANN. §§ 9:17-52, 53:1-20.21 (2000). See LORI ANDREWS & DOROTHY NELKIN, BODY BAZAAR: THE MARKET FOR HUMAN TISSUE IN THE BIOTECHNOLOGY AGE 121, 123 (2001). Twenty states permit the use of samples for research. Kimmelman, *supra* note 14, at 212.

²¹⁷ See 28 C.F.R. Part 46 (2000) (Department of Justice regulations applicable to research, which would apply to research conducted by a federally-funded state crime laboratory or its designee).

interest but research, except research incident to data bank quality assurance, would not meet this burden.

8. Scope of data bank – DNA data banks should be limited to DNA obtained from individuals convicted of violent sex offenses and other violent felonies. For these offenders, the magnitude of the crime, concerns about recidivism, and the likelihood of having DNA evidence at a subsequent crime scene outweigh their privacy interests in not having to submit a DNA sample. The original legislative enactments were wise in limiting DNA samples to this class of felons. Excitement about the law enforcement potential of wider sampling should not be permitted to dominate policy development.

State legislatures throughout the country are debating the issue of where to draw the lines in mandating that offenders be included in state forensic DNA data banks. There are many possible categories: violent felons, all felons, all convicts, all arrestees, and the general population. We reject the notion of including all arrestees or everyone, and we believe that limiting the class of individuals to violent felons is the most defensible demarcation.²¹⁸

²¹⁸ Professor Kaye asserts that requiring a national data base will benefit minority suspects because inmate-based data banks are skewed on the basis of race and ethnicity to reflect the higher minority inmate population. He further suggests that a national data base will eliminate the need for police to round up large numbers of minority men (and women) to search for suspects. Kaye, *supra* note 200, at 194-98.

It is difficult to embrace Professor Kaye's unsupported speculation that members of minority groups, justifiably distrustful of both the law enforcement and biomedical research communities, would consider the mass collection, analysis, and retention of their DNA as a way of protecting their civil rights. In our view, dragnet searches of minority populations to generate suspects are unconstitutional under *Davis v. Mississippi*, 394 U.S. 721 (1969), and should be prohibited. Without the outrage of such searches, Professor Kaye's "equality" argument in favor of a national data bank collapses. It is not necessary to know the identity of the perpetrator to exonerate an innocent person charged with the crime. Indeed, it is the lack of a match between crime scene DNA and the individual charged with the crime, not that someone else's DNA matched the evidence, that has led to the release of wrongfully convicted individuals.

Professor Kaye has a very powerful, simple argument that he comes close to obfuscating: The intrusions on civil liberties that would occur with a more comprehensive or a national forensic DNA data base are outweighed by the public interest in law enforcement. Kaye, *supra* note 200, at 191. It is an argument that will

9. Sanctions for violations - Federal law provides for a \$100,000 fine for the unauthorized disclosure of information in a law enforcement data bank,²¹⁹ but most states do not provide for any sanctions.²²⁰ All jurisdictions should provide for legal sanctions to deter the unauthorized access to or use of data bank information.

CONCLUSION

In disparate areas of daily life too numerous to mention, the DNA revolution has been thrust upon society so quickly that often there has not been adequate opportunity for reflection. Law enforcement is no exception. In a few years' time, DNA evidence has become admissible in every jurisdiction in the United States, and it is often compelling evidence of guilt or innocence. With computer data bases of previously analyzed and personally identified DNA samples, it is easy to determine the source of DNA samples left at crime scenes by previously unknown culprits. The temptation to include in law enforcement DNA data banks more samples from more individuals—or all individuals—is alluring. Yet, sweeping sample collection strategies, requiring law abiding citizens, suspects, and convicts alike to submit DNA for use by the criminal justice system may be going too far. As Illinois Supreme Court Justice Walter Schaefer wrote: "The quality of a nation's civilization can be largely measured by the methods it uses in the enforcement of its criminal law."²²¹

Balancing the interests in expanded forensic DNA data banks is extremely complicated. On one side are the appealing and concrete—if difficult to quantify—benefits of preventing and solving a range of crimes. On the other side are abstract

have wide appeal. We applaud the goal; we just think that such a data base raises grave constitutional issues and, even if constitutional, the civil liberties cost is too high.

²¹⁹ 42 U.S.C. § 14133(c) (1999).

²²⁰ See *infra* Appendix, Tbl. 1.

²²¹ Walter V. Schaefer, *Federalism and State Criminal Procedure*, 70 HARV. L. REV. 1, 26 (1956) (quoted in *Miranda v. Arizona*, 384 U.S. 436, 480 (1966)).

interests in the freedom to be left alone from governmental demands for bodily specimens. One may question how individuals are harmed by submitting a DNA sample for use in law enforcement identification. The same could be said for mandatory submission of fingerprints, photographs, handwriting samples, voice exemplars, urine samples, and hair samples. Would there be any harm if the government demanded that every individual submit all of these samples? Although some people might view the cumulative demands as establishing a closer case, this is still the wrong question. The essence of the Fourth Amendment (and the more general principle of personal privacy) is to establish a sphere of inviolability surrounding the individual. The real question, then, is whether the government interest is so compelling as to overcome the presumption that the autonomy, dignity, and physical integrity of the individual should not be disturbed.

The issue of forensic DNA data banks does not arise in a vacuum. In the emerging world of electronic communications, biotechnology, and computerization, important social questions are continually emerging regarding privacy, confidentiality, and anonymity. A major source of legislative activity at both the federal and state levels involves determining the appropriate degree of privacy protection for medical information, credit information, consumer information, personal data, and numerous other bits of information. In *Whalen v. Roe*,²²² the Supreme Court upheld the constitutionality of a state computer bank containing the records of prescriptions for Schedule II drugs. Justice Brennan wrote in his concurrence:

[C]ollection and storage of data by the State that is in itself legitimate is not rendered unconstitutional simply because new technology makes the State's operations more efficient. However, as the example of the Fourth Amendment shows, the Constitution puts limits not only on the type of information the State may gather, but also on the means it may use to gather it. The central storage and easy accessibility of computerized data vastly increase the potential for abuse of that information, and I am not prepared to say that future developments will not demonstrate the necessity of some curb on such technology.²²³

²²² 429 U.S. 589 (1977).

²²³ *Id.* at 606-07 (Brennan, J., concurring).

Despite the dazzling and often befuddling new technology, the issue is simply how to utilize new technology in a way consistent with societal values. Our society and laws have dealt with the issue before, and it is something that undoubtedly will arise repeatedly in the future. There is, inevitably, a tradeoff between law enforcement and civil liberties. The promise of new technology in aid of law enforcement is seductive; yet, the constitutionally protected sphere of privacy, once breached, will not be easily restored.

The celebrated case of *Olmstead v. United States*²²⁴ raises issues analogous to those we see today with DNA law enforcement data banks. In *Olmstead*, a majority of the Supreme Court held that the strictures of the Fourth Amendment did not apply to the new technology of wiretapping because, in the majority's view, the Fourth Amendment applied only to physical invasions of one's person or property, a position since repudiated by the Supreme Court.²²⁵

Justice Brandeis' dissent in *Olmstead* is legendary, and it rings true today. Brandeis believed that the Constitution is a "living document," and the law should view new technologies in light of the underlying constitutional values they implicate. "Time works changes, brings into existence new conditions and purposes. Therefore a principle to be vital must be capable of wider application than the mischief which gave it birth."²²⁶ To Brandeis, it was absolutely essential for the Fourth Amendment to be construed broadly and applied to new technology that could not have been anticipated by the framers of the Constitution.²²⁷

The makers of our Constitution undertook to secure conditions favorable to the pursuit of happiness . . . They conferred, as against the Government, the right to be let alone, the most comprehensive of rights and the right most valued by civilized men. To protect that

²²⁴ 277 U.S. 438 (1928).

²²⁵ See *Katz v. United States*, 389 U.S. 347 (1967).

²²⁶ *Olmstead*, 277 U.S. at 473-74 (Brandeis, J., dissenting).

²²⁷ "One of Brandeis's working folders for *Olmstead* contains a 1928 clipping reporting on the development of something called television. Brandeis was a great believer in progress—but not all progress was good." PHILIPPA STRUM, LOUIS D. BRANDEIS: JUSTICE FOR THE PEOPLE 325 (1984)(footnote omitted).

right, every unjustifiable intrusion by the Government upon the privacy of the individual, whatever the means employed, must be deemed a violation of the Fourth Amendment.²²⁸

In a frequently quoted passage, Brandeis eloquently addressed the issue of whether the infringement upon Fourth Amendment rights is justified by the government interest in law enforcement and protecting the safety and security of the citizenry.

And it is also immaterial that the intrusion was in aid of law enforcement. Experience should teach us to be most on our guard to protect liberty when the Government's purposes are beneficent. Men born to freedom are naturally alert to repel invasion of their liberty by evil-minded rulers. The greatest dangers to liberty lurk in insidious encroachment by men of zeal, well-meaning but without understanding.²²⁹

Today, there is great zeal to broaden the scope of law enforcement DNA data banks. We should resist the temptation to extend the scope of data banks beyond criminals convicted of violent felonies. Furthermore, other measures outlined in this Article, including analyzing only non-coding regions of DNA, destroying samples after analysis, prohibiting uses beyond law enforcement identification, and providing substantial penalties for violations of the law, are necessary to ensure that liberty is not ensnared by a dragnet of DNA.

²²⁸ 277 U.S. at 478 (Brandeis, J., dissenting).

²²⁹ *Id.* at 479 (Brandeis, J., dissenting) (footnote omitted). In his dissent in *Skinner v. Railway Labor Executives' Association*, 489 U.S. 602 (1989), Justice Marshall expressed a similar concern. "History teaches that grave threats to liberty often come in times of urgency, when Constitutional rights seem too extravagant to endure [W]hen we allow fundamental freedoms to be sacrificed in the name of expediency, we invariably come to regret it." *Id.* at 634 (Marshall, J., dissenting).

APPENDIX

STATE LAW ENFORCEMENT DNA DATA BANK LAWS

States	DNA Data Base Statute	Sex Offenses	Offenses Against Children	Murder	Assault/Battery	Robbery	Burglary	Juvenile Delinquency	All Offenses	Arrestees	Sanctions
		51/51	50/51	42/51	35/51	24/51	24/51	24/51	12/51	2/51	30/51
Alabama	ALA. CODE §§ 36-18-20 to 36-18-39 (2000)	X	X	X	X	X	X		All felony offenses		Class C felony
Alaska	ALASKA STAT. § 44.41.035 (Michie 2000)	X	X	X	X	X		X	All offenses against a person		
Arizona	ARIZ. REV. STAT. § 13-438, § 31-281, § 41-2418 to § 41-2419 (YEAR)	X	X	X	X		X	X			
Arkansas	ARK. CODE ANN. §§ 12-12-1101 to 12-12-1120 (Michie 2000)	X	X	X	X	X		X	All violent offenses and repeat offenses		Class A misdemeanor

[illegible]

Florida	FLA. STAT. ch. 943.31 to 943.325, ch. 947.1405 (2000)	X	X	X	X	X	X	X	X	X	X						
Georgia	GA. CODE ANN. §§ 24-4-60 to 24-4-65 (2000)	X	X	X	X	X	X	X	X	X	X		All felony offenses			Misdemeanor of a high and aggravated nature for disseminating, receiving or otherwise using information for a purpose other than that authorized by law; Felony for obtaining or attempting to obtain a sample without authorization of law	
Hawaii	HAW. REV. STAT. § 706-603 (2000)	X	X	X	X	X	X	X	X	X	X						
Idaho	IDAHO CODE §§ 19-5501 to 19-5515 (2000)	X	X	X	X	X	X	X	X	X	X					Misdemeanor	
Illinois	730 ILL. COMP. STAT. 5/5-4-3 (2000)	X	X	X	X	X	X	X	X	X	X						
Indiana	IND. CODE §§ 10-1-9-1 to 10-1-9-22 (2000)	X	X	X	X	X	X	X	X	X	X					Class A misdemeanor	
Iowa	IOWA CODE § 13.10 (2000)	X	X	X	X	X	X	X	X	X	X						

[illegible]

Minnesota	MINN. STAT. § 299c.155, § 609.117 (2000)	X	X	X	X	X	X	X	X	X	X						
Mississippi	MISS. CODE ANN. §45-33-1, §45-33-15, §45-33-27 (2000)	X	X														
Missouri	MO. REV. STAT. §§ 650.050 to 650.057 (1999)	X	X	X	X	X											
Montana	MONT. CODE ANN. §§ 44-6-101 to 44-6-110 (2000)	X	X	X	X	X	X	X					X				
Nebraska	NEB. REV. STAT. §§ 29- 4101 to 29-4115 (2000)	X	X	X													Class III misdemeanor for unlawfully obtaining or possessing DNA samples; Damages and attorneys fees for a person aggrieved by a violation of the confidentiality provision
Nevada	NEV. REV. STAT. §§ 176.0911 to 176.0917 (2000)	X	X	X	X	X							X				

New Hampshire	N.H. REV. STAT. ANN. §§ 632-A:20 to 632-A:24 (2000)	X	X							X	Class A misdemeanor for unlawful dissemination for disseminating, receiving or using DNA information without authority of law; Class B felony for obtaining or attempting to obtain a sample without authority of law
New Jersey	N.J. STAT. ANN. §§ 53:1-20.17 to 53:1-20.30 (2000)	X	X	X						X	Disorderly person's offense
New Mexico	N.M. STAT. ANN. §§ 29-16-1 to 29-16-12 (2000)	X	X	X	X	X	X	X	X	X	Fourth degree felony
New York	N.Y. EXEC. LAW prec. §§ 995 to 995f (McKinney 2000)	X	X	X					X		Class E felony
North Carolina	N.C. GEN. STAT. §§ 15A-266 to 15A-267 (2000)	X	X	X					X		Class 1 misdemeanor
North Dakota	N.D. CENT. CODE. §§ 31-13-01 to 31-13-09 (2000)	X	X								Class C felony for tampering

Ohio	OHIO REV. CODE ANN. § 109.99, § 109.573, § 313.08, § 2151.315, § 2151.355, § 2901.07 (West 2000)	X	X	X	X				X	X	Misdemeanor in the first degree
Oklahoma	OKLA. STAT. tit. 57, § 584; tit. 74, §§ 150.2 to 150.28 (1999)	X	X	X	X			X			
Oregon	OR. REV. STAT. § 137.076, § 151.085, § 419C.473, § 431.085 (Year)	X	X	X	X			X	X		
Penn.	35 PA. CONS. STAT. §§ 7651.101 to 7651.1102 (2000)	X	X	X	X				X		Misdemeanor in the first degree; Civil action for damages for a person aggrieved by a knowing violation of confidentiality
Rhode Island	R.I. GEN. LAWS §§ 12-1.5-1 to 12-1.5-18 (2001)	X	X	X							Misdemeanor for disclosure of confidential information; Felony for tampering with a DNA sample

South Carolina	S.C. CODE ANN. §§ 23-3-600 to 23-3-700 (2000)	X	X	X	X	X	X	X	X	X				Misdemeanor
South Dakota	S.D. CODIFIED LAWS §§ 23-5- 14 to 23-5-18 (Michie 2000)	X	X	X	X	X	X	X	X	X		All violent offenses		
Tennessee	TENN. CODE ANN. § 38-6-113, § 40-28-407 (2000)	X	X											
Texas	TEX. GOV'T CODE ANN. §§ 411.141 to 411.154 (West 2000)	X	X	X	X	X	X	X	X	X				Misdemeanor
Utah	UTAH CODE ANN. §§ 63-10-401 to 63-10-406 (2000)	X	X											
Vermont	Vt. STAT. ANN. tit. 20, § 1931-45 (2001)	X	X	X	X	X	X	X	X	X		All violent offenses		One year imprisonment and/or \$10,000 fine; Civil action for damages
Virginia	VA. CODE ANN. §§ 19.2-310.2 to 19.2-310.7 (Michie 2000)	X	X	X	X	X	X	X	X	X		X		Class 1 misdemeanor for disseminating information without authority; Class 2 misdemeanor for disseminating, receiving

