The Bill Blackwood
Law Enforcement Management Institute of Texas

Expanding DNA Collection: Misdemeanor Convictions Inclusion

A Leadership White Paper
Submitted in Partial Fulfillment
Required for Graduation from the
Leadership Command College

By
Randy Traylor

Williamson County District Attorney's Office
Georgetown, Texas
February 2015

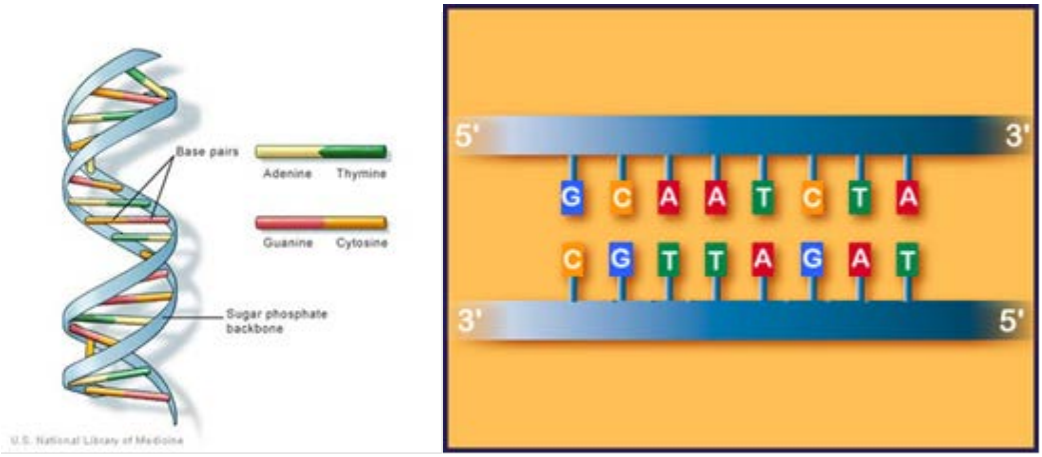
ABSTRACT

Currently the state of Texas collects DNA samples from convicted felons, subjects indicted for a select few felonies relating to sexual assault, and subjects convicted of public lewdness and indecent exposure. However, the state of Texas should expand its DNA collection policies to include collecting samples from defendants convicted of all misdemeanor crimes. The state of Texas, through its criminal justice system, routinely deprives citizens of their constitutional right to freedom and, in some instances, their right to life. A system that has this level of power should be required to use the best technology available in making its decisions. DNA evidence is the gold standard of forensic science, and DNA matching remains absent from the list of forensic techniques that are flawed and pave the way to wrongful convictions. The accuracy of DNA profiling has resulted in over 300 exonerations nationwide in the last two decades (Blackmon, 2012). Increasing the DNA databank by enhancing the level of collection will not only increase the chances of exoneration for those already wrongfully convicted, it will decrease the rate at which wrongful convictions occur in the future. This paper discusses three important reasons Texas should expand its DNA collection, which include the administration of justice, public safety, and maintaining public trust. This paper also addresses the primary arguments against expansion, which include cost of implementation, the backlogging of laboratory systems, and civil rights implications.

TABLE OF CONTENTS

INTRODUCTION

Deoxyribonucleic Acid (DNA) is a chemical structure that forms the 23 pairs of chromosomes found in every human (Brinton & Lieberman, 1994). The structure is formed by two strands of nucleotides, also called bases, which are connected to form base pairs and spiraled around each other to create a double helix (Brinton & Lieberman, 1994). There are four bases: adenine, guanine, cytosine and thymine, which can appear on each side of the double helix (Brinton & Lieberman, 1994).



These bases are sequenced in a specific order and constitute a person's genetic make-up (Brinton & Lieberman, 1994). There are millions of these base pairs in each person's genetic make-up, and every person has a unique sequence of base pairs. Based on the unique sequencing of these base pairs, a person can be identified by the sequence of his or her base pair connections (Brinton & Lieberman, 1994).

Within the past few decades, scientists have discovered repeating patterns in these base pair connections, which enables them to uniquely identify and create a profile (a DNA fingerprint) of a sample of DNA in a relatively short period of time (Schnurbush, 2008). Based on this knowledge, a forensic scientist can employ this process of DNA profiling to create a profile from an unknown sample and compare it to

the profile of a known sample to assist law enforcement officials in the identification of suspects and human remains. This process is similar in theory to comparing the rolled impressions of a person's fingerprints to latent prints lifted at a crime scene.

In the late 1980s, the number of instances in which law enforcement agencies were using this technology to identify suspects and secure prosecutions was rapidly growing (Caudill, 2008). In addition, based on the theory that sex offenders have a high rate of recidivism and typically leave DNA evidence at their crime scenes, law enforcement agencies began to collect DNA samples from convicted sex offenders for the purpose of creating a DNA profile databank. This collection practice was also intended to provide deterrence to sex offenders (Dickerson, 2012). In 1990, the FBI started a program called the "Combined DNA Index System" (CODIS), which is designed to share information between the various states collecting DNA profiles (Dickerson, 2012). Today, the FBI manages the "National DNA Index System" (NDIS), which serves as a repository for DNA profiles collected by each of the 50 states, and, as of January 2011, the number of offender profiles in the national repository was nearly ten million (Dickerson, 2012).

Currently, the state of Texas collects and retains DNA samples from inmates who have been convicted of felony offenses, subjects who have been indicted for a select few felonies, and subjects who have been convicted of public lewdness and indecent exposure. The criterion for collection and retention is recorded in the Texas Government Code, Sub-chapter B, Chapter 411, Section 411.1471 (Texas Gov. Code, 2012). This list has evolved over the years from its original focus on violent offenders and sexual offenders, to all felons, and, most recently, it began including some felony

arrestees who have not been convicted. However, the state of Texas should continue to expand its mandatory DNA collection program and include the collection of a sample from all convicted misdemeanors.

Benson (2002) discussed offending trajectories. He outlined the work of sociologists such as Terrie Moffitt, who discovered that a significant number of people convicted of serious crimes had been previously convicted of misdemeanor crimes. Moffitt's "life–course-persistent" trajectory theory argues that the probability of a person with a previous conviction committing a serious crime is greater than that of the general public. Generally speaking, a large portion of the crimes that are committed are committed by a small portion of the population (Benson, 2002). Therefore, it is a valid assumption that a significant number of unsolved crimes have been committed by a person who has a previous conviction, and a large number of crimes yet to be committed will be committed by a person who has a conviction. By increasing its mandatory collection program, the state of Texas can take advantage of cutting edge science while at the same time acting on research data in order to improve its criminal justice efforts.

POSITION

There are many reasons for expanding post-arrest DNA collection, but the three that appear most important to the criminal justice system are the administration of justice, public safety, and regaining the public's trust. One of the primary purposes of government is the administration of justice, the defining and administering of social controls in order to maintain a civilized society (Eichenberg, 2012). In this concept of order maintenance, the government surrogates for the victim and exacts revenge (an

eye for an eye) in the name of punishment. State sponsored punishment is organized and controlled, which eliminates the possibility of the revenge getting out of hand. With punishment, the human need for vengeance is fulfilled and balance is restored (Eichenberg, 2012). However, if a person is punished for a crime he did not commit, justice is not served.

During the time between 1990 and 2012, 300 people have been exonerated in the United States as the result of DNA testing, the most recent being Damon Thibodeaux exonerated in September 2012 (Blackmon, 2012). Each of these DNA exonerations forces society to question the apparent fallibility of the criminal justice system (Steinbeck, 2007). Post DNA exonerations have initiated investigations into the types of evidence used to secure the wrongful convictions (Berger, 2006). The primary cause in approximately 75% of the cases is mistaken eyewitness identification testimony (Berger, 2006). The very foundation of the legal system in the United States is based on the credibility of a witness's testimony (Engelhardt, 1999); therefore, it should be no surprise that eyewitness testimony is the most prejudicial evidence in a trial (Wise, Dauphinais, & Safer, 2007). The criminal justice system requires each witness to take an oath to tell the truth prior to giving testimony. In addition, perjury laws have been passed in every state. Each of these policies has the purpose of protecting the integrity of the legal system and ensuring an accused person is truly guilty. Yet the system continues to convict innocent people.

Researchers have discovered that memories can be influenced by the methods used to solicit information from witnesses. Psychologist Elizabeth Loftus (1997) confirmed a "misinformation effect," proving that when witnesses are exposed to new

and misleading information after they witness an event, their memory can be distorted by the introduction of the new information. For example, remembering seeing a yield sign at an intersection instead of a stop sign if they received a suggestion the sign was in fact a yield sign or remembering faster rates of speed if asked about one vehicle "smashing" into another vehicle instead of "striking" another vehicle. Research such as that conducted by Loftus (1997) has proven flaws in many areas of prosecution including eyewitness accounts, expert witness testimony, and even confessions. However, DNA matching remains absent from the list of forensic techniques that are flawed (Caudill, 2008). DNA remains the "gold standard" for forensic evidence, and, as such, collection and submittal to the NDIS should be expanded.

In addition to raising questions about the current forensic techniques used to investigate crimes, these exonerations have sparked other obvious concerns about public safety. These concerns relate to the identity and whereabouts of the true actor as well as the number and types of crimes that could have been avoided had the true actor been incarcerated. One recent case currently progressing through the criminal justice system is that of Michael Morton. Morton was convicted of killing his wife in 1987 in Williamson County, Texas and served 25 years in prison before being exonerated by post-conviction DNA testing (Lindell & George, 2011). Through post-conviction DNA testing, DNA was recovered from a bandana that had been located near the crime scene. A suspect profile was created and entered into CODIS. A match for the suspect DNA was located in CODIS, a result which is referred to as a "cold hit." Once the "cold hit" was made and the sample donor was identified, a direct sample was

taken from the sample donor for a second comparison. This second comparison confirmed the DNA recovered from the bandana was in fact the suspect's DNA.

Additional DNA comparisons have connected this same suspect to a second murder that occurred a few years after the Morton case. The significance of the facts surrounding the Morton case to the argument of expanding the State of Texas's mandatory DNA collection policy is simple; in the Morton case, the true actor's DNA profile was submitted into CODIS by the state of California as the result of a collection expansion policy to include all felonies. The fact that the mandatory collection policies are evolving is the only reason law enforcement officials in Texas were able to identify Christine Morton's true killer, link the killer to a second murder, and ultimately remove him from society.

The bottom line is that states are having increased clearance rates based on "cold hits" from their databanks because they allowed the policy to expand in scope, thus causing an increase in the number of profiles in the system. For example: the director of Virginia's Division of Forensic Science reported in 1999 that approximately 60% of the suspects who are identified using the state's databank are identified based on a sample collected pursuant to a conviction for a property crime (Hansen, 1999). Florida has reported that approximately 52% of their database hits are based on samples collected as the result of a property crime conviction (Hansen, 1999). In 2007, Bill Marbaker, the assistant director for the Missouri State Crime Laboratory Division, reported that in 2006, the year after expanding their collection practices to include all convicted felons, the state of Missouri had 716 database hits against unsolved cases

(Heinecke, 2007). Marbaker further reported that the highest annual hit rate Missouri ever had prior to expanding their collection policy was 41(Heinecke, 2007).

The number of wrongful convictions such as seen in the Morton case and the continued discovery of fallacies in many forensic techniques are among the factors that have caused a decreased trust in the criminal justice system. To estimate the magnitude of the problem, Huff (2002) conducted a survey of Ohio prosecutors, judges, law enforcement officials, and a national sample of attorneys general, asking for their opinion in reference to the portion of convictions that are wrongful convictions. The survey resulted in 229 responses. The majority of the 229 respondents opined the portion of convictions that are erroneous is less than 1% (Huff, 2002).

Huff (2002) chose the midpoint of ½ of a percent and made further calculations based on arrest information gleaned from the U.S. Department of Justice, Federal Bureau of Investigation's Uniform Crime Report for the year 2000, and conviction rates gleaned from the U.S. Department of Justice, Bureau of Vital Statistics in 2001 (Huff, 2002). The number of arrests reported for index crimes in 2000 is approximately 2.2 million, and the conviction rate for the year 2000 is estimated at 70% (Huff, 2002). Based on these numbers, approximately 7,700 people were wrongfully convicted of index crimes in the year 2000. This means that approximately 7,700 mistakes were made by the criminal justice system in the courtroom that year. If this same process is followed and calculations are made based on the total number of arrests as reported by the Federal Bureau of Investigations' Uniform Crime Report for 2010, the approximate number of mistakes made by the system in courtrooms across the United States in 2010 will be estimated at 45,923. This number is unsettling considering it is calculated

at a 99.5% accuracy rate. Although DNA evidence does not currently play a role in every successful prosecution, the advances being made in the field of DNA profiling are rapidly increasing the number of cases in which DNA does become a factor. Therefore, based on the accuracy of DNA profiling, increasing the DNA databank through an enhanced level of collection will decrease the rate at which wrongful convictions occur.

COUNTER POSITION

The primary arguments against enhancing the DNA collection program include the cost of implementation, the burden that would be placed on an already backlogged laboratory system, and the civil rights implications. The cost of collection, analysis, and the creation of DNA profiles for the additional inmates will undoubtedly have a high price tag. However, the potential cost savings is not so easily quantified. The price of payouts to exonerated inmates has already reached the tens of millions, and it is unknown how many more actual innocent inmates will be exonerated in years to come. Future exonerations can be mitigated by the expansion of the DNA collection requirements which should off-set the cost of expansion implementation.

One study looked at 18,000 criminal cases involving DNA testing (Huff, 2002). The study revealed that more than 25% of the prime suspects in those cases were eliminated prior to trial (Huff, 2002). Within this relatively small sample, there are many cost savings factors to consider that cannot easily be quantified: the salary savings associated with following up on false leads had the 25% not been eliminated, the cost of conducting criminal trials, and the possible cost of future exoneration payouts. Although calculating the cost related to these factors would be difficult, it could be done if the proper tracking techniques were implemented. There are also possible factors that do

not have a value assessed. There is the possibility of the wrongfully convicted person being executed. There is also the possibility that the true offender, the person who was not convicted and incarcerated, will offend again. These last two factors alone outweigh any monetary values assessed to the implementation of the expansion.

Another argument, which is closely related to the argument of cost, is the concern that expanded collection will further backlog the already backlogged DNA laboratories. It is no secret that state and local laboratories are overworked and underfunded. The common assumption is any expansion of the collection polices will increase their burden. However, Hanson (1999) reported an increased efficiency after expanding the collection policies as described by the states of Virginia and Florida. Likewise, Heinecke (2007) reported an increased efficiency after policy expansion as described by Missouri. Based on these reports, the criminal justice system in Texas should not abandon the idea of expansion. Backlogging within DNA labs should be eased by working smarter.

Texas should explore alternative methods by which the burden can be eased. Some examples are: The application of the principle of division of labor in the laboratory setting. There are several distinct stages of processing in a DNA case: preliminary testing of evidence, the generation of a profile, the entry of the profile into CODIS, and any confirmation sample testing subsequent to the initial CODIS hit, to name a few. Philosopher Adam Smith , over two centuries ago, illustrated how a master craftsman working alone could produce no more than 20 pins each day, while 10 men dividing the pin making process into 18 distinct stages (division of labor) could make over 200 times as many pins per worker as the single craftsman (Kania & Davis, 2012). The three

basics of division of labor theory are increased dexterity in repetitiveness, time savings by not shifting between tasks, and the application of labor saving machines. The accreditation of private labs for the purpose of outsourcing, and the redirecting of certain cases from public labs to private labs. Texas could outsource certain steps in case processing, such as the preliminary testing and the generation of a profile, as well as redirect certain types of cases such as paternity testing and post-conviction testing.

A third argument, advocated by The American Civil Liberties Union (ACLU), is the belief that DNA collection is a violation of the Fourth Amendment to the U.S. Constitution, which states the right of the people to be secure in their houses, papers, and effects against unreasonable searches and seizures shall not be violated (as cited in Dickerson, 2012). According to Dickerson (2012), the government's response to the ACLUs allegations is that the minimal intrusion for the purpose of identification is no different than subjecting a suspect to fingerprinting or a booking photo. This question has been addressed by numerous courts. It is the opinion of these courts that post-arrest DNA collection does not constitute a violation of one's rights as guaranteed by the United States Constitution.

In 1999, the state of Wisconsin expanded its law and required mandatory DNA collection from all convicted felons (Dickerson, 2012). Several inmates filed suit challenging the law. The court, in *Green v. Berge* addressed the Wisconsin issue and ruled in favor of the state law, saying the law "serves an important state interest" (p. 23) and the law meets the requirements of the special needs exception, which means the government's interest in collecting the sample outweighs the individual's privacy expectations (Dickerson, 2012). Similar lawsuits have been filed in other jurisdictions

and have resulted in the same findings. The courts have applied the principle that once a person is convicted of a crime and is incarcerated, their right to privacy expectation is diminished. In June 2013, the United States Supreme Court issued a decision in *Maryland v. King*, which upheld Maryland's policy of collecting and analyzing a buccal swab from a felony arrestee at the time of booking. The court, in considering the constitutionality of taking a buccal swab from a felony arrestee, held that "taking and analyzing a cheek swab of the arrestee's DNA is, like fingerprinting and photographing, a legitimate police booking procedure that is reasonable under the Fourth Amendment" (*Maryland v. King*, 2013, p. 1) .

The court opined that taking a buccal swab from a person is a search under the Fourth Amendment; therefore, the question of its constitutionality hinges on its reasonableness. The court acknowledged that reasonableness is determined by weighing "the promotion of legitimate governmental interests" against "the degree to which the search intrudes upon an individual's privacy," (*Maryland v. King*, 2013, p. 2). The Court, in a 5 to 4 decision, held that the interest of the government to know the identity of an arrestee in the event he/she flees prosecution, and, to know whether the arrestee is wanted for some other crime outweighs the degree of intrusion created by the "buccal swab" procedure, which is quick and painless, requires no "surgical intrusion", and poses no "health or safety," threat to the individual (*Maryland v. King*, 2013, p. 4).

RECOMMENDATION

The state of Texas should expand its mandatory DNA collection requirement to include all misdemeanors for many reasons. First and foremost, the use of DNA

comparison science is the best available investigative technique and is considered the "gold standard" of forensic sciences. The criminal justice system, as a matter of routine business, deprives people of their constitutional right to freedom and, in some instances, their right to life. A system that has this level of power should be required to use the best technology available in making its decisions.

The use of DNA comparison science has increased the level of efficiency in states that have expanded their mandatory collections policy to include all felons. This increase should serve as an indicator to the effect further expansion could have on the Texas system. Violent offenders are being identified and removed from society, thus achieving the core purpose of the criminal justice system: the protection of the public. Increased DNA use equals decreased dependency on flawed alternatives, such as eye witness testimony, which leads to a decrease in the number of wrongful convictions. The criminal justice system must strive to eliminate wrongful convictions in order to regain public trust.

This change in DNA collection policy must be facilitated by the Texas Legislature in the form of an amendment to the Texas Government Code (2012). In order for the current law to be amended, a policy revision bill must be sponsored by one of the Texas State Representatives; therefore, the law enforcement community as well as the public in general should communicate the importance of policy revision to their state representatives. Once such a bill is passed into law, local law enforcement agencies must be prepared to respond to the new law. Jail administrators must employee personnel who are trained and qualified to collect buccal swabs from those inmates who

are convicted and refrigeration units must be available for the proper storage of collected samples.

REFERENCES

Benson, M. L. (2002). Crime and the life course: An introduction. Los Angeles: Roxbury.

Berger, M. A. (2006). The impact of DNA exonerations on the criminal justice system. *Journal of Law, Medicine & Ethics*, *34*(2), 320-327. doi:10.1111/j.1748-720X.2006.00037.x

Blackmon, D. (2012). Innocence: Louisiana death row inmate exonerated through DNA after 15 years. *Death Penalty Information Center.* Retrieved from http://www.deathpenaltyinfo.org/innocence-louisiana-death-row-inmate-exonerated-through-dna-after-15-years

Brinton, K. & Lieberman, K. (1994, May). Basics of DNA fingerprinting. Retrieved from http://www.forensicindia.com/fingerprint/dnaintro.html

Caudill, D. (2008). DNA and the genealogy of scientific truth in the courtroom. *Journal of Criminal Law & Criminology*, *98*(2), 687-697.

Dickerson, J. (2012). Strands of privacy: Privacy rights and DNA sample collection from federal criminal defendants charged with felonies. *Criminal Law Bulletin*, *48*(4), 1-51

Eichenberg, M.G. (2012). Notes on the nature of social control [Word document]. Retrieved from http://blackboard.tarleton.edu/webct/uwr/lc4130001.tp0/cobaltMainFrame.dowebct

Engelhardt, Laura (1999). The problem with eyewitness testimony. *Stanford Journal of Legal Studies*, *1*(1), 25-29.

Hansen, M. (1999). Banking on DNA. *ABA Journal*, *85*(8), 26.

Heinecke, J. (2007). Making the case for “genetic justice”. *Law Enforcement Technology, 34*(3), 82.

Huff R. (2002, February). Wrongful conviction and public policy: The American Society of Criminology 2001 presidential address. *Criminology, 40*(1), 1-18. Retrieved from https://ezproxy.shsu.edu/login?url=http://search.proquest.com/docview/220703512?accountid=7065

Kania, R., & Davis, R. P. (2012). Managing criminal justice organizations: an introduction to theory and practice (2nd ed.). Waltham, MA: Anderson Publishing.

Lindell, C. & George, P. (2011, November 10). New arrest in 1986 killing. *Austin American Statesman*. A01.

Loftus, E. (1997, August 17). Creating false memories. *Scientific American*, *277*(3), 70-75.

Maryland v. King, 133 S. Ct. 1958 (2013).

Schnurbush, K. (2008, September/October). DNA evidence collection and analysis. *TELEMASP Bulletin*, *15*(5), 1-6. Retrieved from https://ezproxy.shsu.edu/login?url=http://search.proquest.com/docview/198040389?accountid=7065

Steinbeck, R. (2007). The fight for post- conviction DNA testing is not yet over: An analysis of the eight remaining “holdout states” and suggestions for strategies to bring vital relief to the wrongfully convicted. *The Journal of Criminal Law & Criminology, 98*(1), 329-361

Texas Local Government Code: with tables and index: As amended through the 2011 regular and first called sessions of the 82nd Legislature. (2012 ed.). (2011). St. Paul, MN: West.

Wise, R., Dauphinais, K., & Safer, M. (2007, March 22). A tripartite solution to eyewitness error. *Journal of Criminal Law & Criminology*, *97*(3), 807-871.