



Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #409

Crime Laboratory DNA Analysis Kits (Justice)

[LFB 2017-19 Budget Summary: Page 269, #9]

CURRENT LAW

Certain individuals who have been convicted of a criminal offense or who have been arrested for certain violent felonies must submit a biological sample to be sent to the state crime laboratories for deoxyribonucleic acid (DNA) analysis. The state has three regional crime laboratories, in Madison, Milwaukee, and Wausau. The Madison and Milwaukee Crime Laboratories perform DNA analysis for the state (the Wausau Crime Laboratory region is served by the Madison Crime Laboratory). After analysts at the crime laboratories perform DNA analysis and develop a DNA profile for a sample, analysts enter the DNA profile into a secure computer database controlled by the Federal Bureau of Investigation (FBI), known as the Combined DNA Index System (CODIS).

The Department of Justice's (DOJ) crime laboratories and DNA analysis continuing PR appropriation receives revenue from the crime laboratory and drug law enforcement (CLDLE) surcharge and the DNA surcharge. This appropriation is utilized support the costs of providing DNA analysis at the state crime laboratories and to reimburse law enforcement agencies for certain costs associated with collecting biological samples and mailing those samples to the state's crime laboratories. The appropriation also acts as the CLDLE and DNA surcharge fund. As the CLDLE and DNA surcharge fund, the appropriation is utilized to transfer monies to other appropriations in DOJ and the District Attorney function to support drug law enforcement, the state crime laboratories, criminal investigations, and a statewide DNA evidence prosecutor position. Base funding and position authority for the appropriation is \$4,321,200 PR and 30.0 PR positions.

GOVERNOR

Provide \$1,000,000 PR annually to DOJ's crime laboratories and DNA analysis continuing

PR appropriation to support an increase in the cost of DNA analysis kits utilized by the state crime laboratories.

DISCUSSION POINTS

1. The bill would provide DOJ with \$1,000,000 PR annually to support an increase in costs for DNA analysis kits utilized by the state crime laboratories in performing scientific analyses (the kits are not utilized in the collection of evidence by law enforcement). Program revenue for these costs would be supported by CLDLE and DNA surcharge fund. As identified in a separate paper on this fund, under the bill, the fund is projected to conclude the 2017-19 biennium with a balance of \$2,322,100. Therefore, the fund has a sufficient balance to support additional funding for DNA analysis kits, as recommended by the Governor. However, it should also be noted that, under the bill, the fund is estimated to operate in a structural deficit during the 2017-19 biennium. In 2017-18, total obligations (\$16,235,700) are estimated to exceed annual revenue (\$15,000,000) by \$1,235,700, and in 2018-19, total obligations (\$16,603,000) are estimated to exceed annual revenue (\$15,000,000) by \$1,603,000.

Background on Individuals Required to Submit a Biological Sample and CODIS

2. Generally, the following individuals must submit a biological sample for DNA analysis:

- Adults who have either been found guilty of a felony or are in prison for any felony committed in Wisconsin after January 1, 2000;
- Adults who have been found guilty of a misdemeanor on or after April 1, 2015;
- Adults and juveniles who, beginning April 1, 2015, have been arrested or taken into custody for certain violent felonies (the appendix to this paper identifies the violent felonies that would result in a biological sample submission at arrest);
- Juveniles who, beginning April 1, 2015, have been adjudicated delinquent on the basis of a violation that would be a felony if committed by an adult in Wisconsin;
- Juveniles who, beginning April 1, 2015, have been adjudicated delinquent for an act that, if committed by an adult, would constitute a misdemeanor violation of fourth-degree sexual assault, endangering safety by use of a dangerous weapon, lewd or lascivious behavior, prostitution, patronizing prostitutes, pandering, failure to submit a required biological sample, and exposing genital, pubic area, or intimate parts;
- Individuals who have been placed in institutional care or found not guilty by reason of mental disease or defect as a result of committing an offense that would constitute any felony a misdemeanor violation of failure to submit a required biological specimen, fourth-degree sexual assault, lewd or lascivious behavior, and exposing genitals, pubic area, or intimate parts; and
- Individuals who are on parole, extended supervision, or probation in another state, but

are supervised in Wisconsin for a violation in the other state that the Department of Corrections determines would constitute a felony if committed in Wisconsin.

3. In addition, a court may order an individual to submit a biological sample if the court determines that a biological sample was not collected from an individual who is required under statute to submit a sample. With regards to biological samples submitted by adults at arrest and juveniles taken into custody for certain violent felonies, the biological samples are only analyzed by the crime labs and included in the state's DNA databank if, within one year of the date of the biological sample being submitted to the state crime laboratory, the court has notified the crime laboratory that one of the following applies: (a) the individual was arrested, or the juvenile was taken into custody, pursuant to a warrant; (b) the court has made a finding that there is probable cause that the individual committed a violent felony, or that the juvenile committed an offense that would be a violent felony if committed by an adult; (c) the individual failed to appear at the initial court appearance or preliminary examination, or the individual waived the preliminary examination; or (d) the individual failed to appear for a delinquency proceeding under Chapter 938 of the statutes (Juvenile Justice Code). If one year passes and the court has not notified the crime laboratory that one of the preceding conditions applies, then the crime laboratory must destroy the biological sample.

4. The Combined DNA Index System is the generic term used to describe the FBI's program of support for criminal justice DNA databases as well as the software used to operate these databases. The National DNA Index System (NDIS) is considered one part of CODIS, and contains DNA profiles contributed by federal, state, and local participating forensic laboratories. All 50 states, the District of Columbia, the federal government, the U.S. Army Criminal Investigation Laboratory, and Puerto Rico participate in NDIS. As approved by CODIS, the Madison and Milwaukee Crime Laboratories electronically upload DNA profile data to CODIS. According to the FBI, as of January, 2017, NDIS contains over 12,732,925 offender DNA profiles, 2,608,768 arrestee profiles, and 752,508 forensic (unidentified) profiles from all nationwide participants. Of these totals, 228,170 offender profiles, 5,362 arrestee profiles, and 15,815 forensic profiles were provided by Wisconsin. In addition, as of January, 2017, NDIS has "aided" in 6,079 Wisconsin investigations (NDIS is considered to have "aided" in an investigation if the System is utilized to generate a DNA profile match or hit throughout the course of the investigation).

5. Under Title 42, Section 14132 of the U.S. Code, Wisconsin's access to the NDIS is subject to cancellation if it does not meet the quality control standards established by the FBI. Prior to January 1, 2017, the FBI required that DNA profiles entered into CODIS contain 13 core loci (genetic markers). Beginning January 1, 2017, the FBI enhanced this requirement, such that DNA profiles entered into CODIS must contain 20 core loci. The purpose of the enhanced requirement is to facilitate greater differentiation, assist in missing person investigations, and encourage international data sharing efforts by having more loci in common with other countries for comparison purposes.

6. The Department identifies a locus (the singular form of "loci"), and the role that loci play in DNA analysis and generating DNA profiles, as follows:

"DNA Analysts use the DNA analysis kits to develop genetic (DNA) profiles from the DNA isolated from forensic evidence samples, known samples from individuals thought to be associated with a crime, as well as from convicted offenders and some arrestees. DNA profiles developed from use of the DNA analysis kits consist of a list of genetic markers or loci. Each person has two (2) types (alleles) at each loci, one type originates from the biological mother and the other type from the biological father. The DNA types at each locus are identified by two separate numbers. It is the list of the loci tested with the DNA Analysis kit and the numbers associated with each locus that makes up a DNA profile. It is the DNA profile (the list of loci and the associated numbers) that is entered in the computer database controlled by the FBI, the Combined DNA Index System (CODIS)."

The Department further states:

"A locus or genetic marker is a specific spot or location on a chromosome. The difference between two distinct loci in forensic science is clearly provided in the nomenclature of each locus indicating a different location on the chromosome. The DNA looked at in forensic science is not currently known to have any function (such as coding for eye color or the potential predisposition toward genetically inherited disease), although there are some loci which are used for gender differentiation. The loci are together used to develop a DNA profile (a list of the loci and the associated numbers) that is used to compare forensic evidence to known individuals. With more loci now required by the FBI for DNA analysis, there is an increase in the distinction between individuals. The additional loci improve the ability to distinguish between related individuals and to exclude individuals for samples with DNA from multiple individuals."

Governor's Recommendations

7. As requested by DOJ in its biennial budget request, the Governor recommends increasing the expenditure authority of DOJ's crime laboratories and DNA analysis continuing appropriation by \$1,000,000 PR annually. The recommended increase in expenditure authority is associated with an increase in costs experienced by the state's crime laboratories in purchasing kits for scientific use in analyzing biological sample submissions. Specifically, the Department indicates that it has experienced an increase in costs associated with these kits due to: (a) the need to purchase more sophisticated kits in order to comply with a new FBI requirement that requires that DNA profiles entered into CODIS contain 20 loci, as opposed to 13 loci; and (b) the need for a greater number of kits than previous years due to an increase in the number of samples the state crime laboratories have processed.

8. The DNA analysis kits utilized by the state crime labs are, in fact, a combination of products purchased by the crime labs that assist in various stages of DNA analysis, such as isolation, identification, quantification, and genotyping (genotyping is the process of determining differences in genetic make-up). Each product that comprises the DNA analysis kit contains varying quantities of different reagents that crime lab analysts utilize when performing DNA analysis. The Department purchases its DNA analysis kits from Promega Corporation.

9. As discussed above, beginning January 1, 2017, the FBI has required that DNA profiles entered into CODIS must contain 20 loci. In order to comply with this FBI requirement, DOJ has had to purchase supplies for its DNA analysis kits that could allow DOJ to identify at least

20 loci. Prior to the enhanced FBI requirement, DOJ spent approximately \$10,900 for all of the products that comprise the DNA analysis kit. As a result of the enhanced FBI requirement, the cost of DNA analysis kits has risen to approximately \$13,000, for an increase of \$2,100 per kit. [Note that the DNA analysis kit cost estimates are based on buying product to support 200 reactions (tests). The total cost for a DNA analysis kit supplies may differ slightly, depending on the quantity in which the crime labs are able to buy supplies.]

10. The Department indicates that it has also needed to purchase a greater number of kits in recent months as compared to previous years in order to keep up with an increase in DNA analysis workload in the past year. In previous years, DOJ purchased, on average, 150 kits per year, in order to test 30,000 samples (as noted above, each kit contains supplies for 200 tests). In contrast, the state crime labs are currently utilizing, on average, 15 kits per month across all of the state crime laboratories, for an estimated annual need of 180 kits (an increase of 20% in the number of kits). These 180 kits could support 36,000 tests.

11. The number of DNA samples the state crime labs have processed increased from 15,783 samples in 2015 to 17,366 samples in 2016 (an increase of 10% from 2015 to 2016). Further, DOJ estimates that it will process over 19,000 samples in 2017 (an increase of at least 9.4% from 2016 to 2017, or at least 20.4% from 2015 to 2017). In comparing the number of samples processed by the State Crime Labs to the number of tests that the DNA kits DOJ is purchasing could support, note that DOJ must utilize the supplies in the DNA analysis kits to run quality control tests as well as to test forensic samples. In addition, the DNA kits must be utilized for training purposes, equipment validation, and proficiency tests taken by analysts each year. The Department attributes the increase in the number of DNA samples that it has had to process, in part, to an increase in the number of sexual assault kits that have been submitted to the state crime labs for analysis. Notably, sexual assault kits can contain, on average, 10 items of evidence for analysis from which samples must be extracted and analyzed.

12. In summary, the Department indicates that its costs associated with DNA analysis kits have increased due to a \$2,100 per kit cost increase resulting from the new FBI requirement, and an increase in the number of kits the Department needs to purchase from approximately 150 kits annually to 180 kits annually. The costs associated with the need to purchase 30 additional kits per year at a rate of \$10,900 per kit totals \$327,000. In addition, since the new FBI requirement increased the cost of a DNA analysis kit by \$2,100, the annual estimated increase in cost for 180 kits increases by \$378,000. In total, DOJ's estimated costs are anticipated to increase by \$705,000.

13. The budget bill provides DOJ an additional \$1,000,000 PR annually to support its increase in costs related to DNA analysis kits. The cost of DNA analysis test kits are supported by DOJ's crime laboratories and DNA analysis continuing PR appropriation. Base funding for this appropriation is \$4,321,200 PR. However, as a continuing appropriation, DOJ is authorized to spend amounts beyond what is appropriated by the Legislature, based on available cash balances. In recognition of the increase in costs associated with new DNA analysis test kits, the Committee could approve the Governor's recommendation and increase DOJ's expenditure authority by \$1,000,000 PR annually [Alternative 1].

14. As noted above, due to the new FBI requirement and the need for additional kits, it is

estimated that the costs associated with DNA analysis kits will increase by \$705,000 annually. In order to more closely align DOJ's expenditure authority with estimated cost increases, the Committee could increase DOJ's expenditure authority by \$705,000 PR annually, as opposed to \$1,000,000 PR annually [Alternative 2]. This alternative would reduce funding under the bill by \$295,000 PR annually.

15. On the other hand, the Committee could exclude the Governor's recommendation and not include additional expenditure authority for DNA analysis test kits [Alternative 3]. The number of biological samples that DOJ will need to analyze, and likewise the number of kits that DOJ will need to purchase, may vary in future years. Under current law, the Department's appropriation that supports the purchase of DNA analysis test kits is continuing. As a result, the Legislature has provided DOJ authority to spend program revenue amounts beyond what is appropriated by the Legislature in order to fulfill its duties to provide DNA analysis for the state. Therefore, DOJ does not require additional expenditure authority to support the costs of more sophisticated DNA analysis test kits. Alternative 3 would reduce funding under the bill by \$1,000,000 PR annually.

ALTERNATIVES

1. Include the Governor's recommendation to increase the expenditure authority of DOJ's crime laboratories and DNA analysis continuing PR appropriation by \$1,000,000 PR annually to support the costs of DNA analysis test kits.

ALT 1	Change to	
	Base	Bill
PR	\$2,000,000	\$0

2. Increase the expenditure authority of DOJ's crime laboratories and DNA analysis continuing PR appropriation by \$705,000 PR annually to support the costs of DNA analysis test kits.

ALT 2	Change to	
	Base	Bill
PR	\$1,410,000	-\$590,000

3. Maintain current law.

ALT 3	Change to	
	Base	Bill
PR	\$0	-\$2,000,000

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APPENDIX

Offenses Considered Violent Felonies for DNA Submission at Arrest

Arson of buildings/damage of property by explosives*
Battery (felony violation)
Battery or threat to an employee of the Department of Revenue, Department of Safety and Professional Services, or Department of Workforce Development
Battery or threat to a judge
Battery or threat to a witness

Battery, special circumstances
Battery to an unborn child (felony violation)
Battery to certain employees of counties, cities, villages, or towns
Burglary*
Causing a child to view or listen to sexual activity*

Child abduction by use or threat of force*
Child enticement*
Disarming a peace officer*
Endangering safety by use of a dangerous weapon (felony violation)*
Engaging in repeated acts of physical abuse of the same child (Class A, B, C, and D felony violation)*

False imprisonment*
Felony murder
Homicide (1st degree)*
Homicide (2nd degree)*
Homicide by negligent handling of a dangerous weapon, explosives, or fire

Homicide by intoxicated use of a vehicle or firearm
Homicide by negligent operation of a vehicle
Homicide resulting from negligent control of a vicious animal
Human trafficking*
Intentional causation of great bodily harm, or harm that creates a high probability of great bodily harm, to a child*

Intimidation of witnesses (felony violation)*
Intimidation of victims (felony violation)*
Kidnapping*
Mayhem*
Possession, manufacturing, selling, or transferring a fire bomb*

Repeated sexual assault of the same child*
Robbery*
Reckless injury
Reckless homicide (1st degree)
Reckless homicide (2nd degree)

Reckless causation of bodily harm to a child

Recklessly endangering safety

Sexual assault (1st degree)*

Sexual assault (2nd degree)*

Sexual assault (3rd degree)*

Sexual assault of a child (1st degree)*

Sexual assault of a child (2nd degree)*

Sexual assault of a child placed in substitute care*

Sexual assault of a child by a school staff person or a person who works or volunteers with children*

Sexual exploitation of a child*

Soliciting a child for prostitution*

Stalking*

Strangulation or suffocation*

Taking a vehicle without owner's consent*

Taking hostages*

Tampering with household products*

Trafficking of a child*

Any felony, if an increased penalty for certain domestic abuse offenders, under s. 939.621 of the statutes,
could be imposed

*The solicitation, conspiracy, or attempt to commit this crime constitutes a violent crime.