

Review of State Crime Lab Resources For DNA Analysis



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I. Executive Summary

DNA evidence plays an increasingly significant role in the identification of criminal suspects and the conviction or exoneration of criminal defendants. The more quickly DNA evidence is accurately processed, the more efficiently and effectively crimes are investigated, suspects are identified, and criminal defendants are prosecuted. Not only may the rapid processing of DNA evidence help provide justice in a particular case, it protects the public from further criminal activity that may occur if cases remain unsolved.

The speedy and accurate processing of DNA evidence is not currently available in every case. The State Crime Laboratory is currently only able to process approximately half of the cases submitted. In 2006, the State Crime Laboratory received 2,226 DNA cases for processing from law enforcement, yet was only able to complete 1,152 cases. At the close of 2006, there were 1,785 DNA cases unprocessed. The projected increase in DNA submissions and the inability of existing resources to handle the current caseload demonstrates the compounding nature of the DNA backlog. Even with improved efficiencies and additional DNA analysts, the DNA backlog will continue to grow significantly before it can be reduced.

Urgent attention to the DNA backlog is needed to reduce long-term costs, provide more rapid turnaround to law enforcement agencies, and better protect the public. DOJ has conducted a thorough review of existing resources, the DNA backlog, projected increases in submissions, anticipated efficiencies that the DOJ will introduce, and costs of eliminating the current and projected DNA backlog. Based upon this review, DOJ's goal is to process criminal cases in a timely manner and eliminate the backlog by December 31, 2010. DOJ recommends enactment of a special appropriation that would authorize 31 new DNA-related positions for the State Crime Laboratory. To account for additional costs associated with hiring and training new DNA analysts and the supply costs associated with processing additional cases, the Department of Justice recommends a special appropriation of \$7.7 million dollars over the 2007-09 biennium.

II. DNA Evidence and Justice: The Significance of DNA Analysis to Law Enforcement, the Criminal Justice System, and Public Safety

Forensic DNA analysis is a rapidly evolving discipline that has become an essential law enforcement tool used to identify, charge, and convict criminals. DNA evidence often exists and can be probative in a wide variety of cases, including violent crimes (such as homicides, sex crimes, and other assaults), property crimes, arson, and drug offenses.

DNA can be used to identify criminals and solve crimes with incredible accuracy when biological evidence exists. DNA is generally used to solve crimes in one of two ways. In cases where a suspect is identified, a sample of that person's DNA can be compared to evidence from the crime scene. The results of this comparison may help establish whether the suspect committed the crime. In cases where a suspect has not yet been identified, biological evidence from the crime scene can be analyzed and compared to offender profiles in DNA databases to help identify the perpetrator. Crime scene evidence from one crime scene can also be linked to other crime scenes through the use of DNA databases, often increasing the chance that crimes can be solved.

DNA evidence not only helps to identify criminals and solve crimes, it helps to convict criminals. Juries increasingly give DNA evidence considerable evidentiary weight. Conversely, juries may infer innocence based upon the lack of DNA evidence. DNA also can be used to clear suspects and exonerate persons mistakenly accused or convicted of crimes. In sum, DNA technology is increasingly vital to ensuring accuracy and fairness in the criminal justice system.

The existence of a DNA backlog has a significant adverse impact on the security of persons and property. For example, there are sexual assault cases in the backlog that remain unprocessed yet may contain evidence that can be used to identify and ultimately enable law enforcement to apprehend, charge, and try the perpetrator. Because perpetrators of sex crimes are often repeat offenders, every day evidence that may identify a sex offender remains unanalyzed is another day the offender might commit another sexual assault. Similarly, burglars and other perpetrators of property crimes are frequently repeat offenders. Allowing evidence to remain unprocessed—and criminals to remain at large—imposes a substantial cost to Wisconsin property owners and their insurers in the form of future property losses that could have been prevented had the criminal been more quickly identified and incarcerated. Thus, the timely processing of DNA evidence is a primary public safety and security issue.

The prevention of property crimes is not the only way in which the timely processing of DNA evidence helps to protect Wisconsin taxpayers. DNA evidence often provides law enforcement with the first identified link between a crime and a criminal. As biological evidence remains unprocessed in the DNA backlog, local law enforcement may expend considerable resources investigating dead-end leads—leads that processed DNA evidence would indicate are likely to be fruitless. Even where law enforcement is ultimately able to solve a crime using traditional investigative techniques or other forensic aids, the time and resources used to solve those crimes can be considerably reduced where the timely processing of probative DNA evidence would have identified the perpetrator or narrowed the field of suspects.

III. The Legal Basis for and the Mandatory Nature of the State Crime Laboratory's Processing of DNA

The State Crime Laboratory exists within the Department of Justice, Division of Law Enforcement Services. As provided for by statute, the purpose of the State Crime Laboratory is to establish, maintain and operate facilities to provide technical assistance to local law enforcement officers in various fields of scientific investigation including the recognition and proper preservation, marking and scientific analysis of evidence in the investigation and prosecution of crimes in a variety of fields. These include firearms identification, the comparison and identification of toolmarks, chemistry, identification of questioned documents, metallurgy, comparative microscopy, instrumental detection of deception, the identification of fingerprints, toxicology, serology and forensic photography. (See *Sec. 165.75(3)(a) Stats.*)

The State Crime Laboratory's assistance can only be requested by a "sheriff, coroner, medical examiner, district attorney, chief of police, warden or superintendent of any state prison, attorney general or governor." (See *Sec. 165.75(3)(b) Stats.*) When properly requested, the crime laboratories "shall cooperate fully in the complete investigation of criminal conduct within their competence in the forensic sciences including field investigation at the scene of the crime" and in "appearances in court as expert witnesses." (See *Sec. 165.75(3)(c) and (d) Stats.*) The crime laboratories may provide services in certain civil cases involving the state, when requested by the Attorney General. (See *Sec. 165.75(3)(f) Stats.*)

State law expressly **requires** DNA testing of **every** biological specimen (1) submitted by a law enforcement agency regarding a felony investigation, (2) requested by a defense attorney, pursuant to a court order, regarding his or her client's specimen, or (3) requested by an individual concerning his/her own specimen, subject to rules the DOJ may adopt. (See *Sec. 165.77(2)(a) Stats.*) In addition, the laboratories **must** analyze the DNA in **every** specimen under Secs. 51.20(13)(cr), 165.76, 938.34(15), 971.17(1m)(a) or 980.03 Stats and **must** maintain a data bank based upon the DNA data in those specimens. (See *Sec. 165.77(3) Stats.*)

IV. Current Production Resources and Productivity Levels

The Department of Justice currently has position authority for 29 DNA analysts. Twelve (12) are located at the Madison facility and 17 at the Milwaukee facility. Of the 29 positions, 19 are presently assigned to casework. Of the remaining ten positions, three are currently assigned to the DNA Databank unit

fulfilling non-case work statutory responsibilities, three are in training, and four are assigned to the Robot Interface Project, which is discussed in greater detail in this paper.

DNA cases are worked in multiple steps. The first step is the physical examination of evidence to locate biological stains or areas to which evidential DNA may have been transferred. The next steps involve the extraction, quantification, amplification and typing of these biological samples. The final step is the analysis of the data and peer review of that data which leads into report writing.

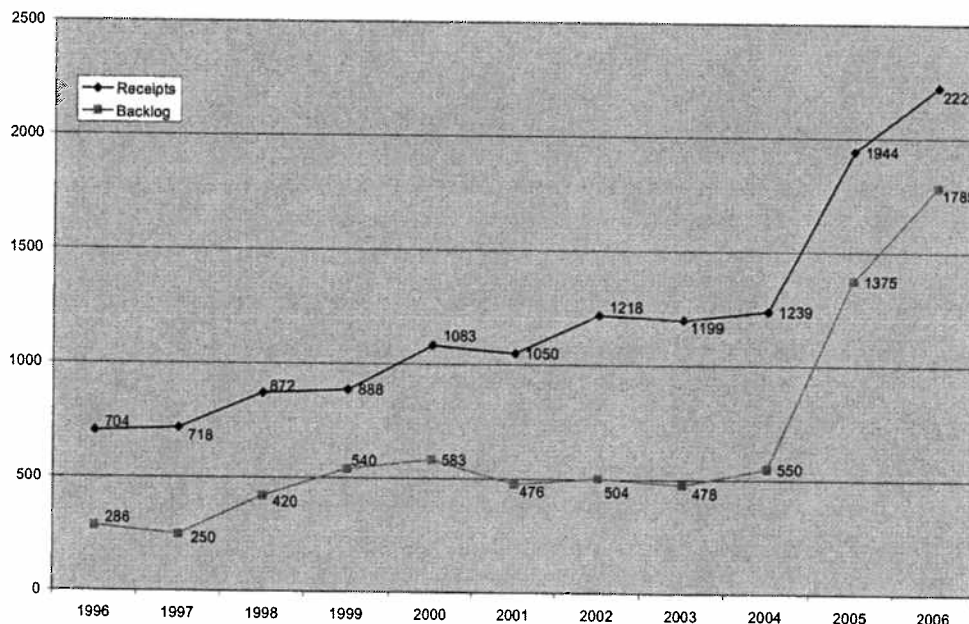
In 2006, DOJ processed 1,152 cases with the equivalent of 21 DNA analysts actively working on cases. Production statistics in 2006 show that the DOJ analysts averaged four to five cases per month. Informal surveys conducted by United States Department of Justice Bureau of Justice Statistics suggest the national average number of cases worked by DNA analysts is two to four cases per month, indicating that the State Crime Laboratory's DNA analysts' productivity compares favorably with national averages. Over the course of 2006, the analysts averaged 55 cases per DNA analyst – the highest per DNA analyst annual productivity rate ever achieved by DOJ.

A case is defined as a criminal event. A case may contain only one item for forensic analysis or it may consist of scores of items for analysis. For example, the Steven Avery investigation resulted in the submission of 190 samples to the State Crime Laboratory, requiring the undivided attention of a DNA analyst for over three months. DOJ's experience indicates that the State Crime Laboratory receives an average of eight items per case. This is also consistent with the national average.

V. The Current DNA Backlog

Though per case samples are consistent with national averages and those samples are processed by DOJ DNA analysts at a rate favorable to national averages, there currently exists a substantial and ever-increasing DNA backlog at the State Crime Laboratory.

Receipts and Backlog Through December 31, 2006



The graphic above communicates two historical datapoints. The top line (blue) is the number of new cases submitted to the State Crime Laboratory annually from 1996 through 2006. The bottom line (pink) represents the number of cases that remained unprocessed at the end of each calendar year.

Submissions for DNA analysis increased from 1,199 in 2003 to 2,226 in 2006, an 86% increase in DNA cases in three years. The average annual growth in submissions from calendar year 2003 through 2006 was 24%. During the period of 2003 to 2006, the backlog grew at a higher rate than the increased submissions, demonstrating the compounding nature of the problem due to the inability of existing resources to keep up with new submissions. At the close of 2006, there were nearly as many cases pending analysis as were submitted during all of 2005. Though 2,226 cases were submitted in 2006, the State Crime Laboratory was only able to work 1,152 cases. In stark terms, the current numbers indicate that for every two new cases submitted, the State Crime Laboratory has the capacity to process one, while one is added to the backlog.

VI. The Goal: Eliminating the Backlog By December 31, 2010

It is of fundamental importance to law enforcement and public safety that DNA evidence regarding a felony investigation be timely analyzed. DOJ is also under a statutory obligation to perform the analysis. To this end, DOJ has chosen the goal of eliminating the backlog by December 31, 2010. Although it would be ideal to eliminate the backlog sooner, DOJ has selected a target date of December 31, 2010 because an earlier date is not likely to be economically or practically feasible. Outsourcing DNA analysis is prohibitively costly as compared to analyzing samples internally. Training a new DNA analyst takes approximately a year, and when combined with the time it takes to post job openings and select candidates, it will be well over a year until an analyst is “on the bench,” actively processing cases. Given existing resources, increasing case submissions, and this hiring and training period, the DNA backlog will increase significantly before it can be reduced. The selected date for eliminating the backlog recognizes this reality.

In connection with this goal, DOJ recognizes that it is not feasible to have cases submitted to the State Crime Laboratory processed “immediately.” The number of case submissions will fluctuate from week to week. DNA analysis takes time, and analysts typically work a case at a time. In weeks where there is a particularly heavy volume of submissions, it will naturally take some time before an analyst will be available. Conversely, it is not desirable to have a number of DNA analysts that will regularly be without cases to work on when submissions are comparatively light. Therefore, with respect to meeting this goal, DOJ defines a backlog to include any case which has been submitted to the State Crime Laboratory for analysis but is not being actively worked on by a DNA analyst within 30 days of acceptance. Typically, this will mean that a case will be fully analyzed within 60 days of submission, recognizing that some cases involving an unusually high number of samples will take longer to process.

VII. Alternatives for Achieving the Goal of Zero Backlog by December 31, 2010

DOJ has analyzed the resources needed to fulfill the goal of zero backlog by December 31, 2010 under four alternatives. In summary, the alternatives and their fiscal impact are as follows:

Alternative 1: No Additional Personnel Added. If no additional DNA staff were added to existing personnel, DOJ projects that at the end of 2010 there would be a backlog approaching 6,000 cases. Addressing that backlog through outsourcing would cost at least \$42.8 million to process the samples. There are additional costs to outsourcing. DOJ DNA staff would have to ensure the quality of the vendor’s analysis. In cases involving a trial, the State would either have to pay the vendor expert witness fees, or, in the alternative, the State Crime Laboratory might have to re-run samples internally so that DOJ DNA analysts can appear as experts. Significantly, under Alternative 1 there would not be sufficient staff to keep current with cases submitted at any time. Moreover, this alternative would create a chronic need to outsource the DNA backlog at a projected cost of over \$12 million annually assuming that case submissions continue to increase, the cost of outsourcing remains constant, and there are no additional productivity improvements beyond what is presently projected.

Alternative 2: September 2006 DOJ Biennial Budget Position Authority Request With Updated Costs. This alternative assumes the addition of 15 new DNA staff and an appropriation of \$3.2 million over the next biennium to pay for new resources. This funding level reflects adjustments to DOJ's September 2006 biennial budget request for 2007-2009, which failed to fully account for increased supply costs relating to the hiring of new analysts and the processing of additional cases. Under this alternative, the backlog is projected to reach 3,581 cases by December 31, 2010. Not including costs associated with expert witness fees, an additional \$25.8 million would be required to outsource these cases. This alternative would also provide insufficient resources to internally process cases submitted in 2010, thus creating a chronic need to outsource future DNA backlog. The prior budget request appears to have failed to consider the time it takes to hire and train a new DNA analyst—a process that takes well over a year—and the projected growth of future DNA submissions.

Alternative 3: Adding 37 New DNA Positions As Part Of Biennial Budget Process. This alternative assumes the addition of 37 new DNA staff. Under this alternative, the backlog can be eliminated by December 31, 2010 without the need to outsource samples. There would be sufficient resources to handle projected submissions in 2010. Alternative 3 would require an appropriation of \$6.9 million during the upcoming biennium to pay for new resources, a figure that would increase during the 2009-2011 biennium due to increased supply costs associated with processing additional cases during those years.

Alternative 4: DOJ Recommended Alternative – Adding 31 New DNA Positions Prior To Budget Process. DOJ's preferred approach involves hiring 31 new DNA staff by July 1, 2007. This alternative assumes enactment of a special emergency appropriation by April 1, 2006. Under this alternative, the backlog can be eliminated by December 31, 2010 without the need to outsource samples. There would be sufficient resources to handle projected submissions in 2010. Significantly, by getting positions online an estimated 6 months earlier, the backlog can be eliminated with 6 fewer positions. Alternative 4 would require an appropriation of \$7.7 million during the next biennium to pay for new resources. This figure that would increase during the 2009-2011 biennium due to increased supply costs associated with processing additional cases during those years. The 2007-2009 biennium expenditure would be greater than Alternative 3, because new personnel would be employed during all of FY 2008, thereby increasing personnel-related costs during the first year of the biennium. More cases will also be processed sooner, meaning an increase in supply costs during the same time. During the second year of the biennium, costs would be less than Alternative 3, reflecting ongoing cost savings due to the fewer personnel that would need to be hired as compared with Alternative 3. DOJ prefers Alternative 4 because it begins to address the backlog more quickly than Alternative 3. The backlog does not grow to the levels that it is projected to under the other alternatives. It results in significant cost savings as compared to outsourcing, and it results in fewer long term expenditures as compared with Alternative 3.

VIII. Fundamental Assumptions Underlying Each Alternative

Analyzing whether resources will be sufficient to meet the goal of eliminating the backlog by December 31, 2010 requires DOJ to make two projections: first, the number of samples submitted for DNA analysis in the future (i.e., the number of cases and the number of samples per case); second, the future productivity level at which analysts can process those samples. As with any projection, there is uncertainty. Nevertheless, DOJ's projections do not rely on a worst-case scenario. Nor are they based on an unrealistically optimistic view of future events. Instead, DOJ's projections are grounded on internal expertise and knowledge of trends, and a commitment to affect these factors where possible in a manner that is consistent with the public safety purpose of DNA analysis.

A. Anticipated Increases in Future Caseload

Several factors indicate there will be a continued growth of DNA cases and samples submitted to the State Crime Laboratory:

- Historically, DOJ has experienced continued growth in DNA cases submitted for analysis. This growth has been particularly pronounced in recent years, with an 86% increase in DNA case submissions in the preceding three years and an **average annual growth rate of 24% over** the same time period.
- Databank hits on some prominent cases have increased interest. Sexual assaults and homicides have been solved by cold hits in the Combined DNA Indexing System (CODIS). Individuals who were previously not considered suspects have been identified as the perpetrators in numerous cases. The prior and continued success of DNA analysis in high profile cases will increase demand for DNA analysis.
- The DNA backlog has discouraged submissions and kept them artificially low, particularly in cases involving property crimes – even though DNA analysis has been most successful in solving property crimes. Law enforcement agencies have tended to hold cases that are not top priority. If an analysis is going to take many months, it may impede the investigation. If the State Crime Laboratory is able to fully process current submissions and begin to reduce the backlog, then DOJ believes that many cases or types of cases that local law enforcement is currently withholding will be submitted to the benefit of public safety.
- The State Crime Laboratory is being asked to do more and more samples per case. DNA forensic analysis continues to improve, and the rapidly improving ability to test small amounts of biological material left at a crime scene has yielded successful results. That success has prompted agencies to collect more and more trace evidence from crime scenes. DOJ expects this trend to continue as analysis improves.
- There is a growing expectation that DNA analysis must be done on every case. This so-called “CSI effect” is that juries are reluctant to convict if there is not DNA even though there may be other credible evidence. Prosecutors will continue to adjust to juror expectations by submitting evidence for DNA analysis in an increasing number of cases.

Although each of these factors suggests that the number of DNA case submissions will naturally tend to increase at a rate that may be closer to the three-year trend of 24% annual growth, DOJ has determined that the most reasonable growth projection is the equivalent of a 12% annual increase. This conservative growth assumption is incorporated into the analysis of each alternative analysis.

The 12% growth assumption is primarily grounded on two factors. First, DOJ is committed to actively engaging law enforcement to ensure that appropriate evidence is collected and submitted to DOJ. These efforts will reduce the number of samples submitted to the State Crime Laboratory that are unnecessarily duplicative or highly unlikely to yield meaningful results. Second, the growth rate between 2005 and 2006 was 12%, indicating that the rate of increase in the number of cases may be leveling.

B. Anticipated Improvements In Productivity

In October, 2005, the Department of Justice commissioned a study by Quality Forensics, Inc. to review the program and processes of DNA analysis at the Wisconsin State Crime Laboratories. The independent study, completed in November 2005, included a number of recommendations designed to improve efficiency while retaining quality in DNA testing. The Department implemented a variety of changes recommended by the study and has experienced improvements in efficiency. At an average of 55 cases processed per analyst in 2006—a productivity rate that outperformed national averages—the DNA analysts at the State Crime Laboratory were more efficient than they had been in the past. This is likely due, in part, to the implementation of certain recommendations made in Quality Forensics, Inc.’s study.

The recent independent analysis and the favorable per analyst efficiency indicates that the backlog is not the result of mismanagement or poor performance, but of limited resources. DOJ is constantly looking at available options to enhance productivity through better management, but any improvements in this

regard are likely to be marginal and will not have a sizeable impact on the inability to keep up with new case submissions.

That said, there is one technology-based improvement scheduled to be brought on line this year that DOJ projects to have a substantial positive impact on productivity: the implementation of robotics for case analysis.

Robotics will automate the extraction, quantification, amplification and typing of biological evidence, speeding up the middle stage of DNA forensics, after the biological sample has been isolated and before it is interpreted. The implementation of the robot, however, will require changes to the analytical scheme for the scientists and require them to rethink the processes so that the robot can provide them the maximum amount of help. Although laboratories in other states are using robots for processing their convicted offender samples, using robots for forensic casework is a relatively new development. As with all new technologies, there is considerable uncertainty as to when the technology will be brought on line, when improvements in efficiency will be realized, and how great those efficiencies will be. Nevertheless, it is expected that the robot will provide an increase in productivity. The analysis in each alternative incorporates a gradual increase in efficiencies through the implementation of robotics, which is consistent with the experience of the New York State Police, who have the only other laboratory that DOJ is aware of that uses robotics for casework.

Each of the alternatives assumes that robotics will be implemented in such a way that this technology will increase analyst productivity by the equivalent of 25% in FY2008, 37.5% in FY2009 and 50% in 2010. Put differently, by July 1, 2009, DOJ projects that average DNA analyst efficiency will improve from 55 cases per year to 82.5 cases per year. These estimates are based on the experience of the New York State Police Laboratory.

These efficiency projections are significant. If productivity remains as it is today, then:

- The backlog could reach 8,000 cases by December 31, 2010 if DOJ is provided no increase in resources.
- The backlog could exceed 6,200 cases by December 31, 2010 if DOJ receives only the resources identified in the September 2006 biennial budget request for 2007-09.
- A total of 72 new analysts could be needed to eliminate the backlog by December 31, 2010 if provided via the upcoming biennial budget process.
- A total of 56 new analysts could be needed using an accelerated approach.

In sum, without improved efficiencies, nearly twice the number of DNA analyst positions would be necessary to eliminate the backlog by December 31, 2010.

IX. Discussion of Budget Assumptions Underlying Each Alternative

A summary of caseload and resources, together with a budget for each Alternative follows. In each of the alternatives considered, certain standard assumptions have been applied, as follows:

- Hourly salaries are \$34.96 for DNA Section Supervisors, \$24.98 for Advanced and Senior level analysts, \$15.729 for Entry level analysts, and \$10.835 for DNA technicians. Entry level analysts receive scheduled hourly increases of \$0.743 after 12 months, and an additional \$0.851 after another six months.
- Fringe Benefits are calculated as 42.11% of salaries, as prescribed by the Department of Administration for the 2007-09 biennium.

- Ongoing Supplies cover data processing support, maintenance and related supplies, plus miscellaneous office supplies and postage, freight and printing. These items averaged \$3,555 per position in calendar year 2006.
- DNA Supplies are essentially the chemicals and related supplies needed to perform DNA analysis, and are budgeted at \$390 per case. As the number of cases processed increase as a function of an increase in the number of analysts and productivity, the DNA Supplies cost increases.
- DNA Training and Durable Supplies relate to the expenses to train DNA analysts and to cover the costs of instrumentation maintenance and other DNA testing materials. These costs average \$16,720 per analyst.
- One-time Supplies provides funding for typical set-up costs, such as computer resources and office furniture, and are budgeted at \$21,800 per position.
- Instrumentation covers the complement of lab equipment needed to perform DNA analysis. While needed for every DNA Section, this equipment can serve a number of DNA analysts.
- Space Rent is the cost of paying for additional space at the Madison Crime Lab. Using current figures for DNA staff at Madison, an estimated 517 square feet would be needed for each analyst. The current Department of Administration rate charged for Madison Crime Lab space is \$25.75 per square foot. Though the September 2006 DOJ budget request contemplated an expansion of the Wausau facility, which does not currently have DNA analysts, the new DNA staff would be placed in Madison under this analysis. Not only would there be a cost savings to DOJ by putting new DNA staff in Madison, but the State already owns vacant space in the Madison facility that would be sufficient to house the number of analysts that would be required to eliminate the backlog by 2010 under the analysis contained in Alternatives 3 or 4.
- To the extent the September 2006 Budget request failed to incorporate known costs associated with additional analysts and DNA supplies, those are now incorporated in Alternative 2.

**X. Charts and Tables Showing
Costs and Productivity Associated With Each Alternative**

Alternative 1: No New Resources

A. Cases and Resources

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
New Cases	2,226	2,493	2,792	3,127	3,503
Cases Worked	<u>1,152</u>	<u>1,454</u>	<u>1,949</u>	<u>2,135</u>	<u>2,228</u>
Added to Backlog	1,074	1,039	843	993	1,275
Ending Backlog	1,785	2,824	3,667	4,660	5,935
Available Analysts	21.00	23.50	27.00	27.00	27.00
Robotics	<u>0.00</u>	<u>2.94</u>	<u>8.44</u>	<u>11.81</u>	<u>13.50</u>
Analyst Equivalents	21.00	26.44	35.44	38.81	40.50

Assumptions:

1. Of the currently authorized DNA analysts, 4 return from Robotics on 7/1/07 and 3 return from training on 7/1/07
2. Assumes Robotics productivity equivalent to 25% of available bench resource on 7/1/07, 37.5% on 7/1/08 and 50% on 7/1/09

B. Budget

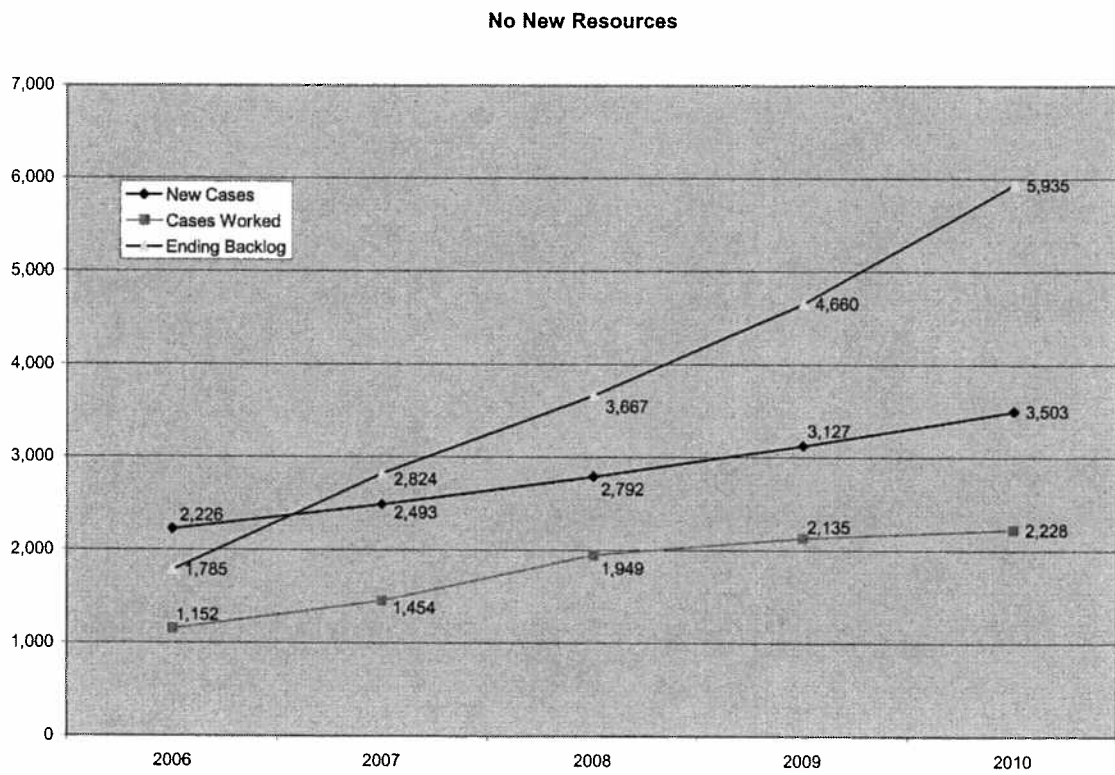
	<u>SFY2008</u>	<u>SFY2009</u>
Current budget plus		
DNA Supplies	\$235,109	\$367,831

Assumptions:

1. DNA chemicals and supplies average \$390 per case (CY2006 experience + 5% cost increase), net of 2006 spent to process 1,152 cases (\$428,500)

If the projected 2010 backlog of 5,935 cases must be handled via outsourcing, then \$42.8 million will be needed for this purpose.

Alternative 1



Alternative 2: September 2006 DOJ Biennial Budget Position Authority Request, With Updated Costs

<u>A. Cases and Resources</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
New Cases	2,226	2,493	2,792	3,127	3,503
Cases Worked	<u>1,152</u>	<u>1,454</u>	<u>2,527</u>	<u>3,004</u>	<u>3,135</u>
Added to Backlog	1,074	1,039	266	123	368
Ending Backlog	1,785	2,824	3,090	3,213	3,580
Available Analysts	21.00	23.50	35.00	38.00	38.00
Robotics	<u>0.00</u>	<u>2.94</u>	<u>10.94</u>	<u>16.63</u>	<u>19.00</u>
Analyst Equivalents	21.00	26.44	45.94	54.63	57.00

Assumptions:

1. Of the currently-authorized DNA analysts, 4 return from Robotics on 7/1/07 and 3 from training on 7/1/07
2. Assumes Robotics productivity equivalent to 25% of available bench resource on 7/1/07, 37.5% on 7/1/08 and 50% on 7/1/09

B. Budget

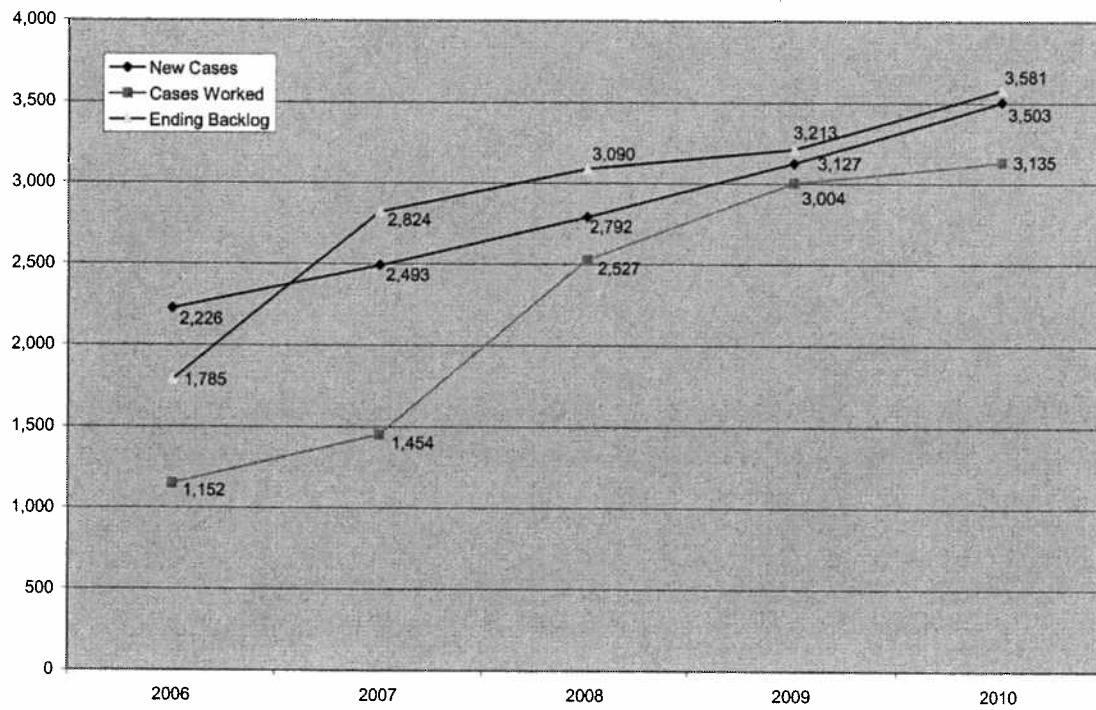
	<u>SFY2008</u>	<u>SFY2009</u>
Salaries	\$438,578	\$591,178
Benefits	184,685	248,945
Ongoing Supplies	39,994	53,325
DNA Supplies	347,722	650,033
DNA Training & Durable Supplies	137,940	183,920
One-time Supplies	327,000	0
Instrumentation	0	0
Space Rent	109,830	146,440
Anticipated Federal Funding	<u>-150,000</u>	<u>-150,000</u>
Total	\$1,435,750	\$1,723,841
New Positions	15.00	15.00

Assumptions:

1. Positions hired 10/1/07, consistent with DOA biennial budget instructions
2. 15 new positions: 11 DNA analysts (2 Advanced, 5 Senior, 4 Entry), 4 Techs. Entry-level analysts receive 2 scheduled pay increases in FY2009.
3. Ongoing supplies for computer-related items, office supplies, mailing, etc. average \$3,555 per position (CY2006 experience)
4. DNA chemicals and supplies average \$390/case (CY2006 experience + 5% cost increase), net of 2006 spent to process 1,152 cases (\$428,500)
5. DNA training and durable supplies average \$16,720 per analyst (CY2006 experience)
6. One-time supplies for furniture, etc. average \$21,800 per position (CY2006 experience)
7. Instrumentation funding of \$460,000 expected from federal grant
8. Space rent estimated at \$25.75 per square foot for 517 square feet per DNA analyst

Alternative 2

9/15/2006 DOJ Biennial Budget Request



Alternative 3: Meeting the Goal via the Biennial Budget Process (35 New Analysts, 37 Total New Positions)

<u>A. Cases and Resources</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
New Cases	2,226	2,493	2,792	3,127	3,503
Cases Worked	<u>1,152</u>	<u>1,454</u>	<u>2,274</u>	<u>4,902</u>	<u>5,115</u>
Added to Backlog	1,074	1,039	518	-1,775	-1,612
Ending Backlog	1,785	2,824	3,342	1,568	-44
Available Analysts	21.00	23.50	31.50	62.00	62.00
Robotics	<u>0.00</u>	<u>2.94</u>	<u>9.84</u>	<u>27.13</u>	<u>31.00</u>
Analyst Equivalents	21.00	26.44	41.34	89.13	93.00

Assumptions:

1. Of the currently-authorized DNA analysts, 4 return from Robotics on 7/1/07 and 3 from training on 7/1/07
2. For 35 new DNA analysts, assume all are hired 1/1/08, 6 are productive 4/1/08 and 29 are productive 1/1/09
3. Assumes Robotics productivity equivalent to 25% of available bench resource on 7/1/07, 37.5% on 7/1/08 and 50% on 7/1/09

B: Budget

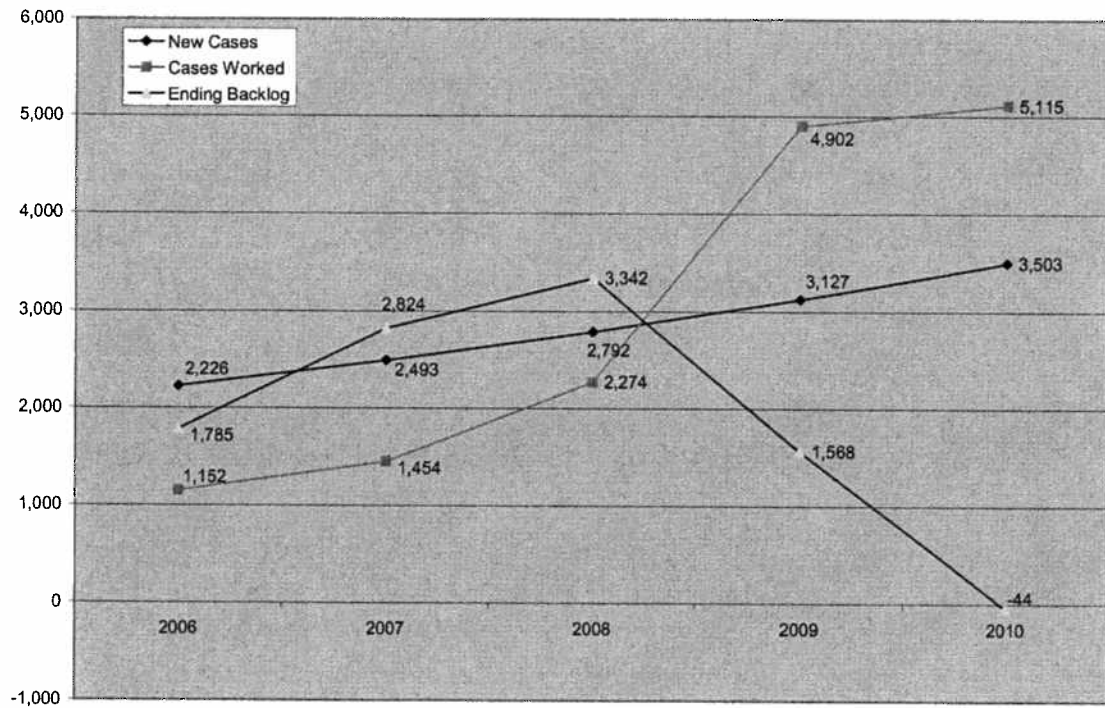
	<u>SFY2008</u>	<u>SFY2009</u>
Salaries	\$677,924	\$1,378,257
Benefits	285,474	580,384
Ongoing Supplies	65,768	131,535
DNA Supplies	298,454	970,777
DNA Training & Durable Supplies	292,600	585,200
One-time Supplies	806,600	0
Instrumentation	460,000	0
Space Rent	232,973	465,946
Anticipated Federal Funding	<u>-150,000</u>	<u>-150,000</u>
Total	\$2,969,792	\$3,962,099
New Positions	37.00	37.00

Assumptions:

1. Positions hired 1/1/08
2. 37 new positions: 1 Supervisor, 35 analysts (3 Lead, 3 Senior, 29 Entry), 1 Tech; Entry-level analysts receive one scheduled pay increase in FY2009
3. Ongoing supplies for computer-related items, office supplies, mailing, etc. average \$3,555 per position (CY2006 experience)
4. DNA chemicals and supplies average \$390/case (CY2006 experience + 5% cost increase), net of 2006 spent to process 1,152 cases (\$428,500)
5. DNA training and durable supplies average \$16,720 per analyst (CY2006 experience)
6. One-time supplies for furniture, etc. average \$21,800 per position (CY2006 experience)
7. Space rent estimated at \$25.75 per square foot for 517 square feet per DNA analyst

Alternative 3

Meeting the Goal Via the Biennial Budget



Alternative 4: Preferred Approach (29 New Analysts, 31 Total New Positions)

<u>A. Cases and Resources</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
New Cases	2,226	2,493	2,792	3,127	3,503
Cases Worked	<u>1,152</u>	<u>1,547</u>	<u>3,212</u>	<u>4,428</u>	<u>4,620</u>
Added to Backlog	1,074	946	-420	-1,300	-1,117
Ending Backlog	1,785	2,731	2,311	1,011	-106
Available Analysts	21.00	25.00	44.50	56.00	56.00
Robotics	<u>0.00</u>	<u>3.13</u>	<u>13.91</u>	<u>24.50</u>	<u>28.00</u>
Analyst Equivalents	21.00	28.13	58.41	80.50	84.00

Assumptions:

1. Of the currently-authorized DNA analysts, 4 return from Robotics on 7/1/07 and 3 from training on 7/1/07
2. For 29 new DNA analysts, assume all hired 7/1/07, 6 productive 10/1/07, 23 productive 7/1/08
3. Assumes Robotics productivity equivalent to 25% of available bench resource on 7/1/07, 37.5% on 7/1/08 and 50% on 7/1/09

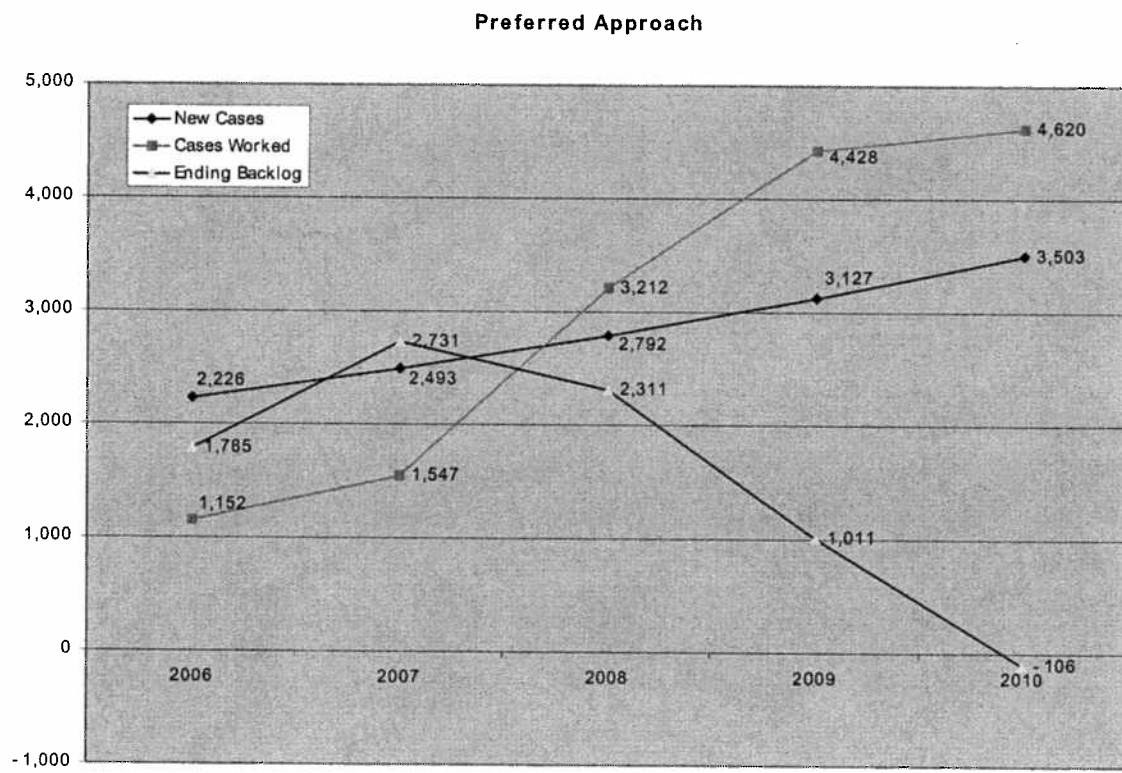
B: Budget

	<u>SFY2008</u>	<u>SFY2009</u>
Salaries	\$1,159,538	\$1,215,439
Benefits	488,281	511,821
Ongoing Supplies	110,205	110,205
DNA Supplies	499,548	1,061,270
DNA Training & Durable Supplies	484,880	484,880
One-time Supplies	675,800	0
Instrumentation	460,000	0
Space Rent	386,070	386,070
Anticipated Federal Funding	<u>-150,000</u>	<u>-150,000</u>
Total	\$4,114,321	\$3,619,684
New Positions	31.00	31.00

Assumptions:

1. Positions hired 7/1/07
2. 31 new positions: 1 Supervisor, 29 analysts (3 Lead, 3 Senior, 23 Entry), 1 Tech; Entry-level analysts receive two scheduled pay increases in FY2009
3. Ongoing supplies for computer-related items, office supplies, mailing, etc. average \$3,555 per position (CY2006 experience)
4. DNA chemicals and supplies average \$390/case (CY2006 experience + 5% cost increase), net of 2006 spent to process 1,152 cases (\$428,500)
5. DNA training and durable supplies average \$16,720 per analyst (CY2006 experience)
6. One-time supplies for furniture, etc. average \$21,800 per position (CY2006 experience)
7. Space rent estimated at \$25.75 per square foot for 517 square feet per DNA analyst

Alternative 4



XI. Additional Alternatives

Legal Issues

The alternatives analysis is based upon existing law and presumes no changes in the mandatory testing requirements. Other states' crime laboratories have attempted to address their backlogs by statutorily limiting the number of specimen samples they will test. Specifically, some states have established numeric limits on the number of samples their labs will test depending on the nature of the offense. Other states have allowed their lab administrators discretion regarding which samples will be tested. While not without problems, a carefully crafted change in the law providing DOJ discretion regarding what specimens the State Crime Laboratory will test would still be largely consistent with fundamental law enforcement and public safety concerns. Nevertheless, it is questionable whether such a change would result in any appreciable increase in efficiency. DOJ's DNA analysts already work closely with law enforcement and prosecutors to identify those specimens which, based upon their expertise and experience, will most likely provide probative evidence. As a result of this informal collaborative case by case selection and submission process, DOJ has already obtained many of the efficiencies that might be gained by providing DOJ with the final say on samples that must be processed.

DOJ has serious concerns about the arbitrary imposition of limitations on the number of samples that may be tested based upon the case type. Crime scenes, case types, and biological evidence are not one-size-fits-all, yet that is the underlying assumption contained in legislation statutorily limiting the numbers of samples. It can not be known with certainty in advance whether a particular sample will or will not contain an identifying DNA signature. The collaborative process presently being used in Wisconsin, informed by professional expertise and discretion, provides more flexibility and significantly improves the chances for success. Statutory limitations may prevent investigators from collecting or submitting all of the samples they felt were worthy of testing and potentially prevent them from getting the evidence necessary to convict or exonerate suspects. In addition, prosecutors have expressed concerns that if limits are imposed on the number of specimens that will be tested, defense attorneys may ask juries to infer that the untested samples contained evidence which would have exonerated their clients.

To be sure, legislation imposing arbitrary limits on the number samples that can be processed may be effective at increasing the number of cases that can be analyzed, thereby reducing a backlog. But it does so at the expense of effectively identifying suspects and solving crimes. Such legislation mistakes the symptom—the backlog—for the problem: the existence of unsolved yet solvable crimes where perpetrators remain unidentified and are a threat to public safety.

The question has also been posed whether limiting the number of DNA samples processed in non-violent property crimes cases would increase the annual caseload per analyst. DOJ believes that limiting the number of samples tested in property crimes cases would not appreciably increase the annual case productivity per analyst. First, property crimes generally generate fewer samples to be examined than other types of offenses. Second, with the existing backlog and processing priorities, fewer property crime cases are processed as a percentage of total receipts as compared with violent crimes. Since DNA analysts are not testing as many property crime samples, limiting the number of tests for those types of crimes would have only a limited impact on the analysts' output. Third, even if there is a marginal increase in productivity per analyst, the State Crime Laboratory is not able keep up with current non-property crime related submissions. Fourth, arbitrarily limiting the number of property crime samples will have a deleterious effect on law enforcement's identifying suspects in property crimes in the professional opinion of the submitting agency and the State Crime Laboratory analyst, more samples should have been tested.

Assuming the backlog is addressed, limiting the number of property crime samples tested could increase the annual caseload per analyst. Doing so however, would likely have an adverse impact on the number of no-suspect cases solved. The success rate for identifying perpetrators in investigations with no suspects is higher in property crimes than any other type of offense. Since a significant number of property crime suspects (burglars, etc.) are repeat offenders, it would be counterproductive to limit the samples tested in those types of cases if they might lead to the offenders' apprehension early on rather than allowing them

to continue to victimize others for an extended period. It should also be noted that regardless of any statutory limitations imposed, the DOJ would still be required to test additional specimens in response to defense requested court orders as allowed under Sec. 165.77(2)(a) Stats.

Wausau Crime Lab Expansion vs. Madison Crime Lab Remodel Only

The September 2006 budget request for the 2007-09 biennium included a plan for the expansion of the Wausau Crime Lab to include DNA analysis. This analysis places new DNA staff in Madison for the following reasons:

1. The cost of construction/build out at Wausau was over and above the cost of remodeling existing space at the Madison facility that is currently unused but already owned by the state.
2. It would take longer to develop space and start analysis in Wausau because the Wausau lab is a privately leased building. A private developer would need to work with DOA on any expansion plan. Madison's space is available and only needs to be retrofitted and furnished. The delay associated with the Wausau plan has a number of significant deleterious consequences.
 - First, as demonstrated by comparing Alternatives 3 and 4, every month matters. The longer it takes to get DNA analysts productive on case work, the longer it will take to address the backlog and the more analysts will ultimately need to be hired.
 - Delay in addressing the backlog threatens public safety.
 - Having DNA analysts ultimately housed in Wausau may make hiring and training DNA analysts more expensive. Because Wausau does not have DNA lab space and training requires time in the lab, analysts would have to be trained in Milwaukee or Madison. While assigned to training away from Wausau, DOJ would likely have to supply housing and living expenses to trainees for up to a year.
 - Having DNA analysts ultimately housed in Wausau will create hiring difficulties. Though DOJ may receive enough qualified candidate applications for Wausau to achieve Alternatives 2, 3, or 4 if the facility were already built out, it is unlikely that there will be enough qualified candidates that will take a position in Wausau with the knowledge that they will be living in Madison or Milwaukee for up to a year.
3. Rent on an additional 4,000 square feet (estimated) in Wausau at a higher private lease rate over and above the existing rent increase on 18,100 square feet at Madison's state-owned building. (Wausau rent is currently \$31 per square foot while Madison rent is \$25.75 per square foot.)
4. Instrumentation of additional Wausau space over and above the cost of Madison instrumentation. (Cost of \$460,000)
5. Wausau would require the building, installation, and testing of a robot that does not exist, thus adding costs and delaying the realization of projected efficiencies, or eliminating those efficiencies entirely.
6. Accreditation requires annual audits to ensure consistency of testing at all DNA labs. A third DNA site would make consistency more elusive.

XII. Conclusion

Urgent attention is needed to address this statewide public safety and security issue. DOJ is committed to doing its part to work collaboratively with local law enforcement to control submissions consistent with its obligation to public safety. It is also in a position to increase productivity by 50% per DNA analyst in 2009. Even with these efforts and the 15 new DNA-related positions sought in then Attorney General Lautenschlager's September 2006 budget request, the State Crime Laboratory will not keep up with

projected incoming submissions from law enforcement. Absent expensive outsourcing, the DNA backlog would continue to grow.

The State will achieve considerable cost savings if sufficient resources are provided to the State Crime Laboratory and the DNA backlog is not outsourced. If 37 new DNA-related staff positions were awarded as part of the normal budget process, then DOJ projects that the DNA backlog will be eliminated in 2010 and the State Crime Laboratory will have sufficient resources to timely process new DNA submissions. Due to the compounding nature of the backlog, however, savings can be made and the backlog can be addressed sooner if positions were made available by an emergency appropriation. Thus, DOJ recommends the timely enactment of a special appropriation that would authorize 31 new DNA-related positions for the State Crime Laboratory.

As the public becomes more aware of the capabilities of DNA forensic technology, there is a growing expectation that it will be used not only to solve committed crimes, but also prevent future offenses by identifying repeat offenders before they potentially victimize others. Some may question whether the State can afford the costs of eliminating the backlog. The real question, however, is whether it can afford not to. While the cost of this DNA testing may be significant, it is a small price to pay if it prevents a murder, a sexual assault, or otherwise allows the citizens of this State to feel safe and secure in their homes, neighborhoods and cities.