



## Criminalistics Section – 2004

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### **B131 The Business Case for Using Forensic DNA to Solve and Prevent Sexual Assault Cases**

*Ray A. Wickenheiser, BSc\*, Acadiana Criminalistics Laboratory, 5004 West Admiral Doyle Drive, New Iberia, LA 70560*

The learning objective of this presentation is to acquaint the forensic scientist and forensic science administrator with the concept and practical application of cost benefit analysis to the area of forensic science. By applying this analysis to the specific topic of "no suspect sexual assault," a business case for forensic science will be amply demonstrated in a manner that all can relate to, dollars and sense.

Through application of a cost benefit analysis, and development of a sound business case, the forensic community will better demonstrate the value of its service. The application of this method to cases of "no suspect" sexual assault demonstrates a many fold return on investment. Ultimately, demonstrating the dollar value of using forensics to solve and prevent crime will lead to appropriate levels of funding to meet the requirements of society.

The elements truth and justice are very difficult to quantify and measure. While no one doubts the value of forensic science in the establishment of truth, and hence justice, through the objective means of science, many government forensic labs are experiencing difficulty in securing adequate financial resources to meet their goals. Only one quality of work is possible with justice at stake, the highest. The consequence of error is grave, so quality cannot be sacrificed for the sake of output. There are high requirements to provide this top quality. Education, ongoing training, proficiency testing, documentation, and accreditation itself, add to the cost of providing the forensic service deserved by all members of society. More than ever, forensic laboratories have become the victims of their own success. The demand for quality service has outstripped the financial resources available and required to deliver the services needed.

With expenditures of all levels of government scrutinized more than ever, levels of funding are very tight. Retaining funding levels is difficult, let alone increasing funding to expand services to meet increasing levels of demand, and the high cost of technology. Making a business case for forensic science involves placing a dollar value on the costs and the benefits of forensics. While it is inherently very difficult, establishing dollar cost and benefits demonstrates the real value of forensics as an investment. Furthermore, the value of the investment in forensics can be compared to expenditures and benefits of other programs.

Use of the very specific forensic case type of "no suspect" sexual assault provides the framework for this business case. Cases of sexual assault where the perpetrator is unknown to the victim are seldom solvable without the assistance of forensic science. With the help of recently established DNA databases, a suspect can be developed, and cases solved, which were previously unsolvable. There is a high level of recidivism in the case of sexual assault, where the same offender commits a number of assaults. Early detection and apprehension of offenders not only solves outstanding cases, but prevents future assaults as well. The cost of providing forensic DNA service can be quantified. The benefits of applying forensics to solve cases of sexual assault can also be calculated, as well as the value of preventing future sexual assaults. In this manner, a cost benefit analysis can establish the high value of forensic DNA in quantifiable terms. With this very high return on investment, the case can be made much more easily for adequate resources to meet the level of demand needed by society.

#### **Business Case, DNA, Sexual Assault**