City in Forefront of Scientific Policing

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Abstract

A National Academy of Sciences report addresses the science—or lack thereof—in America's crime labs and criminal justice system. John Roman explains why a new era of scientific policing may be at hand.

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By John Roman

One of the worst-kept secrets in law enforcement—that there is little science behind many standard investigative practices—is getting the sunshine treatment.

A National Academy of Sciences study released yesterday concludes that, although many dedicated professionals are working with police to solve crimes using physical evidence, there are no national credentialing standards for crime scene technicians and analysts. Moreover, investigative practices across the country are inconsistent: who collects the evidence, how it is processed and how it is interpreted varies from coast to coast.

Most important is the National Academy's conclusion that no current scientific method ensures the accuracy of many common investigative tools. For example, contrary to what we see on television, it is next to impossible to guarantee that a hair lifted from a crime scene matches one taken from a suspect.

The National Academy concludes that only DNA evidence can consistently and certainly link crime scene evidence to the perpetrator.

Ironically, these findings should not mean the end of forensics in law enforcement. In fact, for the cop on the beat in San Diego, the judge wielding a gavel, the jury deliberating evidence, and citizen and wrongdoer alike, a true era of scientific policing is about to begin.

The National Academy study is particularly relevant to San Diego, which has long been a leader in using DNA to solve many crimes. San Diego's crime lab has grown substantially this decade and is supported by the largest state DNA database in the country. San Diego is one of only a handful of jurisdictions to aggressively use DNA to investigate burglaries and robberies. But finger-pointing and naysaying in the wake of the National Academy report will only prevent San Diego and other areas that adopt its model from using new technology to improve public safety.

We've known for years that some of the most routine ways of identifying suspects, including eyewitness testimony and jailhouse snitches, were dubious. Now, courtesy of the National Academy, we can add forensic evidence -- ballistics, impression evidence (footprints and bite marks), analysis of trace evidence (hair and fibers) and perhaps even fingerprints -- to the list.

The National Academy didn't say these types of forensic evidence routinely implicate the wrong suspect. Rather, these techniques include an unacceptable, unscientific element of subjectivity that leaves their conclusions suspect.

Traditionally, courts have allowed this evidence to be considered because expert witnesses and their conclusions were deemed credible and the science was generally accepted in the scientific community. The National Academy recommends raising the standards for expert qualification and the underlying science.

The implications are profound. Thousands of convictions may be open to challenge, and ongoing and future prosecutions will be affected.

One outcome will be to move DNA into the forefront of law enforcement. While glamorized in the popular media, DNA remains a rarely used tool -- only 80,000 investigations have ever been aided by DNA. For comparison, since 2001, more than 10 million Americans have been victims of a violent crime, more than 15 million Americans have experienced a burglary and 10 million cars have been stolen.
Burglaries and other costly high-volume crimes generally receive scant attention from police and prosecutors -- even though burglars may also commit violent crimes -- because these offenses are extremely hard to solve. According to a recent Urban Institute study, using DNA evidence to investigate these common crimes means that more than twice as many suspects are identified, twice as many suspects are arrested and more than twice as many cases are accepted for prosecution.

With enough police and laboratory resources to make DNA analysis a standard step in property crime investigations, Americans could expect stunning results. In one year, police could identify suspects in more than 300,000 residential burglaries nationwide that would otherwise go unsolved and make 200,000 additional arrests. Hundreds of thousands of other crimes, such as motor vehicle theft, could be solved and many serious offenders would be caught in the process.

The National Academy report may cause a knee-jerk reaction that it is time to punish crime labs. This is precisely the wrong response. These understaffed facilities need a substantial infusion of funding to process evidence properly, improve public safety and promote the new era of scientific policing. The revolution is coming, with San Diego as one of its launch points, and the public will be far better protected if we get ahead of the wave and adequately equip a new generation of police.

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Other Publications by the Authors

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