Forensic Evidence in Arizona: Reforms for Victims and Defendants

Valena E. Beety*

INTRODUCTION

Arizona is nationally recognized as a leader in forensic science. Our state court judges serve on the Legal Resource Committee for the National Institute of Science and Technology (NIST) and provide guidance to NIST's Organization of Scientific Area Committees for Forensic Science.¹ Our Phoenix lab analysts and lab directors have national reputations.² And Arizona State University's Sandra Day O'Connor College of Law has been home to many leading academics in the field of forensics and the law, among them Michael Saks, David Kaye, and Jay Koehler.³ We have a robust forensic science community in Arizona and in Phoenix in particular.

Thus, this Article identifies the strengths of the current system in Arizona and proposes innovative reforms appropriate for labs that are already leaders in the field. Arizona is particularly well situated to increase its lab independence and to serve additional members of the criminal legal community: namely, defendants and victims.

Regarding defendants, this Article recommends greater transparency and accessibility to fundamental scientific lab findings for defense attorneys, similar to the practices of well-known independent crime labs such as the Houston Forensic Science Center. Additionally, the volunteer-run Arizona Forensic Science Advisory Committee can ensure greater integrity for forensic evidence in the courtroom if it is staffed, ideally with a staff attorney.

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^{1.} Legal Task Group, NIST (July 1, 2020), https://www.nist.gov/topics/organization-scientific-area-committees-forensic-science/legal-task-group [https://perma.cc/8ZF2-A7SN].

^{2.} Interview with Ron Reinstein, Chairman, Ariz. Forensic Sci. Advisory Comm., and Kent Cattani, Member, Ariz. Forensic Sci. Advisory Comm. (Jan. 16, 2020).

^{3.} Michael Saks, ARIZ. STATE UNIV., https://isearch.asu.edu/profile/275962 [https://perma.cc/A4QY-AGCD]; David Kaye, ARIZ. STATE UNIV., https://isearch.asu.edu/profile/54249 [https://perma.cc/E6WF-A8BN]; Jonathan Koehler, NW. PRITZKER SCH. OF L., https://www.law.northwestern.edu/faculty/profiles/JonathanKoehler/ [https://perma.cc/68X8-YAS6].

Regarding victims, in a moment of calls to "defund the police," this Article proposes that police departments shift resources to hire more civilian crime scene investigators. More civilian investigators can increase responsiveness to property crimes for victims and also identify the scope of the property crime problem in regularly impacted neighborhoods. Economically struggling neighborhoods are frequently overpoliced for controlled substances violations, yet law enforcement is simultaneously underresponsive to victims of property crime in these communities.

These proposals in the interest of defendants, victims, and the integrity of the Arizona criminal legal system may be more likely to occur alongside ultimate independence for the Arizona crime labs. Independent labs would respond directly to the Governor rather than serve within the Department of Public Safety and individual police departments.

I. FORENSICS IN ARIZONA

The Arizona Department of Public Safety (DPS) oversees the Scientific Analysis Bureau (SAB), which provides forensic services for police agencies in Arizona.⁴ Governor Jack Williams created DPS in 1969 by executive order, and the agency is headed by a director, given the rank of colonel, who is appointed by the governor.⁵ Command staff in DPS are all designated with police officer rankings, from colonel to lieutenant colonel to inspector.⁶ The Lieutenant Colonel Director of the Technical Services Division oversees the SAB.⁷ The SAB provides forensic services to all police agencies within the State of Arizona through four regional laboratories.⁸

Arizona is one of a minority of proactive states that has a Forensic Science Advisory Committee.⁹ The goal of Arizona's Committee is to "improve forensic science services provided by laboratories that are funded and

^{4.} *Scientific Analysis Bureau*, ARIZ. DEP'T OF PUB. SAFETY, https://www.azdps.gov/organization/TSD/scientific-analysis [https://perma.cc/32B2-6P2F].

^{5.} Organization, ARIZ. DEP'T OF PUB. SAFETY, https://www.azdps.gov/organization [https://perma.cc/5FS7-58SJ].

^{6.} *Command Staff*, ARIZ. DEP'T OF PUB. SAFETY, https://www.azdps.gov/colonel/staff [https://perma.cc/L74U-BEEM].

^{7.} *Technical Services Division*, ARIZ. DEP'T OF PUB. SAFETY, https://www.azdps.gov/organization/TSD [https://perma.cc/9W99-DPT2].

^{8.} *Scientific Analysis Bureau, supra* note 4. These services are typical of crime labs: quality assurance, blood alcohol testing, toxicology, controlled substances testing, latent print testing, trace evidence testing, firearms/toolmark testing, DNA testing, and crime scene testing. *Id.*

^{9.} Arizona Forensic Science Advisory Committee, ARIZ. ATT'Y GEN.'S OFF., https://www.azag.gov/criminal/azfsac [https://perma.cc/23EY-Y4RS]; see FORENSIC TECH. CTR. OF EXCELLENCE, STATE FORENSIC SCIENCE COMMISSIONS 29 app. 2 (2016), https://forensiccoe.org/private/5dd6ab125ce02 [https://perma.cc/2VD7-TUU4].

operated by different governmental agencies throughout the state."¹⁰ The committee is chaired by retired Judge Ron Reinstein and was formed after a recommendation from a DNA task force report issued by the Attorney General.¹¹ While the Committee has not made recommendations on the admissibility of forensic evidence, members have formed the Arizona Forensic Science Academy.¹² The Academy serves to provide an "innovative course that brings prosecutors and defense attorneys together to learn about the scientific issues which are presented in criminal cases from the experts who actually do the science."¹³ The Academy also provides trainings for judges, educating the bench on "forensic science issues [such as] the current state of forensic science services in Arizona, challenges to the various scientific disciplines, ongoing efforts for improvements, and foundational principles underlying the different disciplines."¹⁴

II. ARIZONA DEFENDANTS

"[W]e really get to know our defendants, their families, the victims, the witnesses, our partners. So often a defendant today is a victim tomorrow, and a victim yesterday is a defendant tomorrow "

- Jennifer Henry, Chief Prosecutor of the Navajo Nation¹⁵

In her recent book *Until We Reckon: Violence, Mass Incarceration, and a Road to Repair*, restorative justice leader Danielle Sered writes about a hierarchy of victims.¹⁶ She plainly addresses how race and class lend more value and attention to certain victims within the criminal legal system.¹⁷

15. Legal-Ease Podcast, *COVID-19 Pandemic Impact on Tribal Communities*, SOUNDCLOUD, at 45:50 (June 26, 2020), https://soundcloud.com/legaleasepod/covid19tribalcommunities [https://perma.cc/5Z2V-JHP8].

16. See generally DANIELLE SERED, UNTIL WE RECKON: VIOLENCE, MASS INCARCERATION, AND A ROAD TO REPAIR (2019).

17. See generally id.

^{10.} Arizona Forensic Science Advisory Committee, supra note 9.

^{11.} *Id.*; *see also* OFF. OF THE ATT'Y GEN., ARIZONA DNA AND FORENSIC SCIENCE RECOMMENDATIONS (2007), https://www.azag.gov/sites/default/files/docs/criminal/azfsac/AZ_DNA Report2007.pdf [https://perma.cc/47M7-RNJR].

^{12.} Arizona Forensic Science Advisory Committee, supra note 9.

^{13.} Ronald Reinstein, *Arizona Forensic Science Academy*, ARIZ. ATT'Y GEN.'S OFF., https://www.azag.gov/sites/default/files/docs/criminal/azfsac/What-Is-AFSA.pdf [https://perma.cc/L2RF-42BS].

^{14.} J. Wolf et al., *The Arizona Forensic Science Academy: A Model Program for Delivering Forensic Science Education to Criminal Justice Practitioners*, https://www.justice.gov/ncfs/page/file/959711/download [https://perma.cc/QSN8-493K].

Jennifer Henry, the Chief Prosecutor of the Navajo Nation, similarly said in a recent interview that all victims need to be respected—including victims who have at some point committed offenses themselves.¹⁸ She recognized that defendants in one case have often been victimized themselves in another scenario.¹⁹ Our criminal legal system only allows an identity as a victim or a defendant, not both. As defendants in Arizona, these individuals frequently have limited access to forensic evidence in their cases.

A. Crime Lab Independence

Crime labs generally work for the state and as part of law enforcement specifically. In 2009, the National Academy of Sciences published *Strengthening Forensic Science in the United States: A Path Forward* (NAS Report), identifying the flaws across forensic disciplines and calling for independent crime labs.²⁰ The NAS Report and the 2016 President's Council of Advisors on Science and Technology Report, *Forensic Science in Criminal Courts* (PCAST Report), were both particularly concerned with independent scientists providing their analyses rather than police-governed labs.²¹ Ever since the NAS Report advocated for independent crime labs, law enforcement leaders have frequently refused to release crime labs from their control.²² One reason may be because the police crime lab acts specifically for law enforcement and for prosecutors. The lab not only tests all the evidence brought in by law enforcement but also takes requests on types of testing by police and by prosecutors.²³ Defendants do not have that capacity with most crime labs.²⁴

^{18.} See Legal-Ease Podcast, supra note 15, at 46:01.

^{19.} *Id.*

^{20.} COMM. ON IDENTIFYING THE NEEDS OF THE FORENSIC SCIS. CMTY., NAT'L RSCH. COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 17–20 (2009) [hereinafter NAS REPORT], https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf [https://perma.cc/RQX4-6QX6].

^{21.} *Id.* at 19–20; *see also* PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., EXEC. OFF. OF THE PRESIDENT, FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS 5–14 (2016) [hereinafter PCAST REPORT], https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic science report final.pdf [https://perma.cc/E4EM-W6FQ].

^{22.} Jennifer E. Laurin, *Remapping the Path Forward: Toward a Systemic View of Forensic Science Reform and Oversight*, 91 TEX. L. REV. 1051, 1074 (2013); see also Mark Hansen, *Crime Labs Under the Microscope After a String of Shoddy, Suspect and Fraudulent Results*, A.B.A. J., Sept. 2013, at 44, https://www.abajournal.com/magazine/article/crime labs under the microscope after a string

_of_shoddy_suspect_and_fraudu/ [https://perma.cc/L2PD-KZLQ].

^{23.} See NAS REPORT, supra note 20, at 39–40.

^{24.} See id. at 17.

A crime lab is not only under the control of law enforcement; lab analysts may be psychologically connected with the police. Working in policecontrolled labs may influence and bias analyst findings.²⁵ A "well-known example of such influence occurred when forensic analyst Joyce Gilchrist, then a scientist at the Oklahoma City Police Laboratory," falsified DNA evidence results and "actively colluded with a prosecutor to hide exculpatory evidence" from a defendant.²⁶ These actions resulted in a potentially innocent man being sent to death row.²⁷ Justice Antonin Scalia himself opined that "[f]orensic evidence is not uniquely immune from the risk of manipulation. . . A forensic analyst responding to a request from a law enforcement official may feel pressure—or have an incentive—to alter the evidence in a manner favorable to the prosecution."²⁸

Although all the DPS crime lab divisions ultimately report to Lieutenant Colonel Timothy Chung as the Assistant Director of the Technical Services Division, the Superintendent of the SAB is a civilian.²⁹ Similarly, the Phoenix Police Crime Lab is currently directed by a civilian rather than law enforcement; however, she ultimately reports to law enforcement leadership.³⁰ Crime labs are unfortunately often at the bottom of the list for funding.³¹ Crime lab employment is a different type of work than a traditional law enforcement position and can be undervalued and inadequately funded in the budgeting process.³²

As many others have opined, independent crime labs may be more beneficial to justice and impartiality in the criminal legal system.³³ In

^{25.} Sherry Nakhaeizadeh et al., *The Emergence of Cognitive Bias in Forensic Science and Criminal Investigations*, 4 BRIT. J. AM. LEGAL STUD. 527, 537, 549 (2015) ("Selective information search within legal perspectives occurs when an individual examines information or evidence to incriminate a suspect based on a personal hypothesis, and ignores the search for evidence that could exonerate or lead to an alternative hypothesis."); *see also* Alafair S. Burke, *Improving Prosecutorial Decision Making: Some Lessons of Cognitive Science*, 47 WM. & MARY L. REV. 1587, 1588–1613 (2006) (illustrating how prosecutorial decisions are influenced by cognitive biases).

^{26.} Valena E. Beety, *Changed Science Writs and State Habeas Relief*, 57 Hous. L. REV. 483, 498 (2020).

^{27.} Mitchell v. Gibson, 262 F.3d 1036, 1063–64 (10th Cir. 2001).

^{28.} Melendez-Diaz v. Massachusetts, 557 U.S. 305, 318 (2009).

^{29.} Vince Figarelli, NAT'L INST. OF JUST. (July 17, 2019), https://nij.ojp.gov/bio/vince-figarelli [https://perma.cc/D7A4-3A3M]; see also Command Staff, supra note 6.

^{30.} Jody Wolf is the Crime Lab Administrator for the Phoenix Police Crime Lab. Phoenix Police Department, FACEBOOK (Sept. 23, 2018, 8:39 AM), https://www.facebook.com/PhoenixPolice/photos/jody-wolf-is-the-crime-lab-administrator-for-the-phoenix-police-department-labor/2145499938858575/ [https://perma.cc/KP2A-U7DC].

^{31.} SANDRA GUERRA THOMPSON, COPS IN LAB COATS: CURBING WRONGFUL CONVICTIONS THROUGH INDEPENDENT FORENSIC LABORATORIES 37–39 (2015).

^{32.} *Id.*

^{33.} See, e.g., NAS REPORT, supra note 20; PCAST REPORT, supra note 21.

Arizona, the medical examiner offices are independent, even though they frequently examine evidence of homicides and give pivotal testimony and findings for prosecutions.³⁴ Similar independence is possible for crime labs, particularly since the labs have generally avoided controversy.³⁵

B. Problem: Wrongful Convictions Due to Faulty Forensic Evidence

Wrongful convictions reveal that innocent people can be convicted based on flawed forensics and misinterpreted science.³⁶ The Arizona wrongful conviction of Ray Krone exemplifies how faulty forensic evidence in the hands of a prosecutor can send an innocent man to death row. Ray Krone was dubbed the "Snaggletooth Killer"³⁷ and convicted of the kidnapping and murder of Kim Ancona in 1991 based on the prosecutor's bogus bite mark evidence.³⁸ Indeed, the Arizona Supreme Court acknowledged in reviewing Mr. Krone's initial appeal of his conviction that "[t]he bite marks were crucial to the State's case because there was little other evidence to suggest Krone's guilt" and "[w]ithout the bite marks, the State arguably had no case."³⁹ The Arizona Supreme Court reversed Mr. Krone's conviction because of a *Brady* disclosure violation; however, the prosecutor recharged, retried, and reconvicted Mr. Krone.⁴⁰ In 2002, post-conviction DNA evidence exculpated

^{34.} Interview with Greg Hess, Med. Exam'r, Pima Cnty. (Feb. 25, 2020). In contrast, and as an example of the interconnection between police departments and death investigations, in three states—California, Nevada, and Montana—coroners who conduct death investigations are also sheriffs. Anita Chabria, *Will a Harassment Complaint Against a Sheriff Change How California Treats Its Dead*?, SACRAMENTO BEE (Mar. 4, 2018, 11:30 AM), http://www.sacbee.com/news/local/article203203089.html [https://perma.cc/B92X-P6FE]. In Nebraska, the county prosecutor is also the coroner. Bill Kelly, *County Attorneys Trained as Death Investigators*, NET (May 31, 2011, 7:00 PM), http://netnebraska.org/article/news/county-attorneys-trained-death-investigators [https://perma.cc/5CNC-TU4H]; *see also* NEB. REV. STAT. §§ 23-1201.01, -1210, -1820 (2020). Some sheriff–coroners, such as San Joaquin, California, Sheriff–Coroner Steven Moore, have a history of pressuring medical examiners to meet with law enforcement and alter findings. Chabria, *supra*.

^{35.} Interview with Ron Reinstein and Kent Cattani, *supra* note 2.

^{36.} See Forensics, THE NAT'L REGISTRY OF EXONERATIONS, https://www.law.umich.edu/special/exoneration/Pages/Forensics.aspx [https://perma.cc/B2KJ-HWTW].

^{37.} Hans Sherrer, *Ray Krone Settles for \$4.4 Million After Two Wrongful Murder Convictions*, JUST. DENIED, Spring 2006, at 16, 16, http://justicedenied.org/issue/issue 32/krone jd32.pdf [https://perma.cc/J5NJ-H5EQ].

^{38.} Jennifer D. Oliva & Valena E. Beety, *Regulating Bite Mark Evidence: Lesbian Vampires and Other Myths of Forensic Odontology*, 94 WASH. L. REV. 1769, 1782–83 (2019).

^{39.} Id. at 1783; State v. Krone, 897 P.2d 621, 622 (Ariz. 1995).

^{40.} Oliva & Beety, *supra* note 38, at 1783.

and exonerated Mr. Krone.⁴¹ He was excluded as the perpetrator, and the DNA implicated an Arizona prisoner incarcerated for the sexual assault of a seven-year-old girl.⁴²

According to the National Registry of Exonerations, since 1989, our criminal legal system has convicted and incarcerated at least 653 innocent individuals due in part to faulty forensic evidence.⁴³ The 2016 PCAST Report, *Forensic Science in Criminal Courts*, critiqued feature–comparison techniques as requiring more validation studies before they could demonstrate true reliability.⁴⁴ The PCAST Report found that "[t]here is no justification for accepting that a method is valid and reliable in the absence of appropriate empirical evidence."⁴⁵ More condemning, the PCAST Report explained how "reviews by competent bodies of the scientific underpinnings of forensic disciplines and the use in courtrooms of evidence based on those disciplines have revealed a dismaying frequency of instances of use of forensic evidence that do not pass an objective test of scientific validity."⁴⁶

In civil cases, forensic evidence is vetted pretrial by litigants through *Daubert* hearings, and parties proffer skilled scientific evidence experts on both sides.⁴⁷ In the vast majority of criminal cases, however, neither side questions the forensic evidence pretrial, and defendants often do not have their own forensic experts.⁴⁸ Forensic testimony is admitted regardless of its scientific reliability and accuracy.⁴⁹ Judges admit evidence that those same

^{41.} *Ray Krone*, THE NAT'L REGISTRY OF EXONERATIONS (Jan. 4, 2015), https://www.law.umich.edu/special/exoneration/Pages/casedetail.aspx?caseid=3365 [https://perma.cc/FS29-8H2Y].

^{42.} Oliva & Beety, *supra* note 38, at 1783.

^{43.} See Map of Exonerations in the United States, THE NAT'L REGISTRY OF EXONERATIONS, http://www.law.umich.edu/special/exoneration/Pages/Exonerations-in-the-United-States-Map.aspx [https://perma.cc/5NB3-PBXW] (choose "Present" for "Bad Forensic Evidence" in the "Contributing Factors" section). This data is current through October 27, 2020.

^{44.} Beety, *supra* note 26, at 496 (citing PCAST REPORT, *supra* note 21, at 5–14).

^{45.} PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., EXEC. OFF. OF THE PRESIDENT, AN ADDENDUM TO THE PCAST REPORT ON FORENSIC SCIENCE IN CRIMINAL COURTS 4 (2017), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensics _addendum_finalv2.pdf [https://perma.cc/RZH3-6S85].

^{46.} PCAST REPORT, *supra* note 21, at 22.

^{47.} Jennifer D. Oliva & Valena E. Beety, *Discovering Forensic Fraud*, 112 NW. U. L. REV. 121, 126 (2017).

^{48.} *Id.* at 126–27. Notably, the Federal Rules of Evidence were created to apply equally in civil and criminal cases. *See id.* at 127. Rule 702 on expert evidence does not differ in language for civil and criminal cases. *Id.* at 129.

^{49.} See Jennifer L. Groscup et al., *The Effects of* Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases, 8 PSYCH. PUB. POL'Y & L. 339 (2002); see also United States v. Sherwood, 98 F.3d 402, 408 (9th Cir. 1996) (admitting fingerprint comparison evidence without conducting a Daubert hearing). In United States v. Havvard, the court described

judges would likely reject in civil cases.⁵⁰ Although courts can appoint an independent expert under Rule of Evidence 706, they rarely do so.⁵¹ Indeed, in Georgia, the state legislature created a rule to admit any and all expert evidence in criminal cases,⁵² while applying a strict *Daubert* review and exclusionary standard for expert evidence in civil cases.⁵³ A criminal defendant cannot even challenge the admission of the prosecutor's expert and proffered forensic evidence.⁵⁴ According to Professor Michael Risinger, these substantial discrepancies between civil and criminal cases are "particularly unacceptable given the law's claim that inaccurate criminal convictions are substantially worse than inaccurate civil judgments, reflected in the different applicable standards of proof."⁵⁵

This lack of questioning of prosecutors' proffered forensic evidence is pervasive, despite the Supreme Court stating that "[s]erious deficiencies have been found in the forensic evidence used in criminal trials."⁵⁶ The regular

52. GA. CODE ANN. § 24-7-707 (2020) ("[T]he opinions of experts on any question of science, skill, trade, or like questions shall always be admissible ").

53. The Georgia legislature has adopted standards applicable to its civil expert witnesses that are nearly identical to those provided by the Federal Rules of Evidence and Civil Procedure. *See id.* § 24-7-702.

54. See id. § 24-7-707.

56. Melendez-Diaz v. Massachusetts, 557 U.S. 305, 319 (2009). The Supreme Court also mentioned how "[o]ne commentator asserts that '[t]he legal community now concedes, with varying degrees of urgency, that our system produces erroneous convictions based on discredited

Sherwood as an opinion "asserting that the reliability of fingerprint comparisons cannot be questioned." 260 F.3d 597, 600 (7th Cir. 2001) (emphasis added).

^{50.} Oliva & Beety, *supra* note 38, at 1771.

^{51.} I have previously recommended that courts appoint independent experts to evaluate forensic evidence under Federal Rule of Evidence 706. Valena Beety, *Changing the Culture of Disclosure and Forensics*, 73 WASH. & LEE L. REV. ONLINE 580, 592 (2017), https://scholarlycommons.law.wlu.edu/cgi/viewcontent.cgi?article=1067&context=wlulr-online [https://perma.cc/84EU-Z3JX]. Under Rule 706, parties may submit nominations, and the court may on its own motion also appoint an expert. *See* FED. R. EVID. 706(a). In Justice Breyer's concurrence to *General Electric Co. v. Joiner*, he recommended, "Judges should be strongly encouraged to make greater use of their inherent authority ... to appoint experts Reputable experts could be recommended to courts by established scientific organizations, such as the National Academy of Sciences or the American Association for the Advancement of Science." 522 U.S. 136, 149–50 (1997) (Breyer, J., concurring) (alteration in original) (quoting Brief for the New England Journal of Medicine and Marcia Angell, M.D., as Amici Curiae Supporting Neither Petitioners nor Respondents, General Electric Co. v. Joiner, 522 U.S. 136 (1997) (No. 96-188), 1997 WL 304759, at *18–19).

^{55.} D. Michael Risinger, *Navigating Expert Reliability: Are Criminal Standards of Certainty Being Left on the Dock?*, 64 ALB. L. REV. 99, 100 (2000); *see also* David A. Sklansky & Stephen C. Yeazell, *Comparative Law Without Leaving Home: What Civil Procedure Can Teach Criminal Procedure, and Vice Versa*, 94 GEO. L.J. 683, 714–15 (2006) ("Civil litigators who venture into criminal cases tend to be stunned and often outraged by their inability to depose government witnesses or even to file interrogatories or requests for admissions.").

admission of forensic evidence on the part of prosecutors⁵⁷ may also be connected to a lack of robust pretrial discovery and prosecutors' failure to disclose forensic results to defendants pretrial.⁵⁸

Pretrial, prosecutors can refuse to disclose forensic evidence without consequence, even though the American Bar Association advises prosecutors to disclose full documentation from forensic labs.⁵⁹ Full documentation includes complete files and methods of analysis rather than reductive basic results.⁶⁰ Only the prosecutor has access to the complete file from the crime lab, and when only one party has access, cognitive bias and tunnel vision can influence disclosure decisions.⁶¹

Tunnel vision can result in prosecutors focusing on only one theory of a crime and filtering all evidence through the lens of that theory.⁶² Tunnel vision is generally understood as "that 'compendium of common heuristics and logical fallacies,' to which we are all susceptible, that lead actors in the criminal justice system to 'focus on a suspect, select and filter the evidence that will "build a case" for conviction, while ignoring or suppressing evidence

60. Garrett, *supra* note 59, at 1179–80.

61. Beety, *supra* note 26, at 491; *see also* Laurin, *supra* note 22, at 1096–98 ("Cognitive bias of this sort is likely to have particularly perverse effects with respect to precisely the types of forensic evidence that, from a reliability-enhancing perspective, we should be most concerned about: exculpatory science, and science that is *less* than the 'gold standard.' On the former count, confirmation bias and tunnel vision have been widely accepted as causes of erroneous disregard, rejection, or recharacterization of exculpatory evidence by both police and prosecutors, and the anecdotal evidence is that the force of science does not render forensic evidence immune to this pressure." (emphasis added) (footnote omitted)); Keith A. Findley & Michael S. Scott, *The Multiple Dimensions of Tunnel Vision in Criminal Cases*, 2006 WIS. L. REV. 291, 308 ("The foundational tendency is probably best understood as an expectancy bias, which is a form of confirmation bias. When people are led by circumstances to expect some fact or condition (as people commonly are), they tend to perceive that fact or condition in informationally ambiguous situations. This can lead to error biased in the direction of the expectation." (footnotes omitted)).

62. Valena E. Beety, *The Overdose/Homicide Epidemic*, 34 GA. ST. U. L. REV. 983, 998 (2018) (citing Myrna Raeder, *What Does Innocence Have To Do with It?: A Commentary on Wrongful Convictions and Rationality*, 2003 MICH. ST. L. REV. 1315, 1327).

forensics."" *Id.* (quoting Pamela R. Metzger, *Cheating the Constitution*, 59 VAND. L. REV. 475, 491 (2006)).

^{57.} See PCAST REPORT, supra note 21, at 22 ("[R]eviews by competent bodies of the scientific underpinnings of forensic disciplines and the use in courtrooms of evidence based on those disciplines have revealed a dismaying frequency of instances of use of forensic evidence that do not pass an objective test of scientific validity.").

^{58.} Oliva & Beety, *supra* note 47, at 123–24.

^{59.} Brandon L. Garrett, *Constitutional Regulation of Forensic Evidence*, 73 WASH. & LEE L. REV. 1147, 1179–82 (2016). Notably, Rule 16 of the Federal Rules of Criminal Procedure only requires discovery of scientific reports and examinations if such evidence "is material to preparing the defense" or "the government intends to use the item in its case-in-chief at trial." FED. R. CRIM. P. 16(a)(1)(E)(i)–(ii).

that points away from guilt."⁶³ Similarly, confirmation bias leads people to seek information that confirms their theories rather than undermines or challenges their theories.⁶⁴ Thus, people with access to information may disvalue that information based on whether it supports their theory.⁶⁵

Tunnel vision is particularly damaging in the initial investigative stages of a criminal case. This is of concern "because all subsequent stages of the investigation will potentially be impacted by the information generated at this initial stage."⁶⁶ Indeed, even "[f]orensic scientists, aware of the desired result of their analyses, might be influenced—even unwittingly—to interpret ambiguous data or fabricate results to support the police theory."⁶⁷

In theory, the police crime lab is available to both parties, yet in Arizona, defense attorneys rarely call on police crime lab analysts for their expertise or assistance.⁶⁸ Nationally, crime lab analysts overwhelmingly testify for the state,⁶⁹ a fact that led the Supreme Court to determine in 2006 that police crime lab analysts were often neither impartial nor neutral.⁷⁰ While much has changed since then, and forensic evidence is more robust, many labs remain under police and prosecutor control.⁷¹ Notably, the Phoenix Police Crime Lab does conduct training for both prosecutors and defense attorneys about the capabilities of the lab;⁷² however, this has not resulted in defense attorneys relying on the crime lab in the myriad ways that prosecutors do.

There are many examples of prosecutors having access to the crime lab and resources that defense counsel do not. Defense attorneys cannot request for a DNA profile to be run through Combined DNA Index System (CODIS)

- 65. See generally Burke, supra note 25, at 1588–1613.
- 66. Nakhaeizadeh et al., supra note 25, at 539.
- 67. Findley & Scott, supra note 61, at 293.
- 68. Interview with Ryan Tait, Crim. Def. Att'y, Tait & Hall (June 12, 2020).
- 69. THOMPSON, *supra* note 31, at 187–88.
- 70. Melendez-Diaz v. Massachusetts, 557 U.S. 305, 318 (2009).

71. Thompson identifies cognitive bias as a motivational bias from group affiliation by lab analysts being police department employees, in addition to departmental pressures from being subordinate to the Chief of Police. THOMPSON, *supra* note 31, at 130–31. She discusses confirmation bias as an unconscious tendency to "seek, perceive, interpret, and create new evidence in ways that verify their preexisting beliefs." *Id.* at 133 (quoting Saul M. Kassin et al., *The Forensic Confirmation Bias: Problems, Perspectives, and Proposed Solutions*, 2 J. APPLIED RSCH. MEMORY & COGNITION 42, 44 (2013)).

72. Interview with Jody Wolf, Dir., Phx. Crime Lab (Feb. 26, 2020).

^{63.} Findley & Scott, *supra* note 61, at 292 (quoting Dianne L. Martin, *Lessons About Justice from the "Laboratory" of Wrongful Convictions: Tunnel Vision, the Construction of Guilt and Informer Evidence*, 70 UMKC L. REV. 847, 848 (2002)).

^{64.} Nakhaeizadeh et al., *supra* note 25, at 537 ("Selective information search within legal perspectives occurs when an individual examines information or evidence to incriminate a suspect based on a personal hypothesis, and ignores the search for evidence that could exonerate or lead to an alternative hypothesis."); *see also* Burke, *supra* note 25, at 1593.

for a match; only a prosecutor may make such a request.⁷³ Defense attorneys cannot request a familial search through DNA to exculpate their client; only prosecutors can.⁷⁴ And defense attorneys cannot request access to public DNA databases, but law enforcement can.⁷⁵

C. Proposal: Reliable Forensic Evidence in Court

I propose two solutions for the disparity in reliable forensic evidence for defendants in Arizona. The first is to fund a staff position for the Arizona Forensic Science Advisory Committee. The staff person would coordinate forensic experts for defendants who wish to have one and assist defense counsel with drafting *Daubert* motions and requests to the court for experts. Oregon has established this structure by funding the Forensic Justice Project.⁷⁶

The second solution is making the scientific forensic files in crime labs as accessible to defense attorneys as they are to prosecutors. The model for this structure is the Houston Forensic Science Center, a nationally renowned independent crime lab.⁷⁷ The Houston Forensic Science Center prides itself on being an independent, science-based, impartial lab, and part of its transparency efforts is providing scientific information equally to all parties in a criminal case.⁷⁸

1. Arizona Forensic Science Committee: Adding a Paid Staff Attorney

As noted earlier, Arizona is one of a minority of states that has a Forensic Science Advisory Committee. The Committee is located within the jurisdiction of the Arizona Attorney General's Office.⁷⁹ The Committee

^{73.} Regarding Defense Access to DNA Databases, NAT'L ASS'N OF CRIM. DEF. LAWS. (Feb. 23, 2013), https://www.nacdl.org/Content/BoardResolution~2-13-13(3) [https://perma.cc/QU4P-EVKP].

^{74.} Concerning the Use of Familial DNA Searching During Criminal Investigations, NAT'L ASS'N OF CRIM. DEF. LAWS. (Feb. 23, 2013), https://www.nacdl.org/Content/BoardResolution~2-13-13(2) [https://perma.cc/2NAZ-8P5D].

^{75.} NAT'L ASS'N OF CRIM. DEF. LAWS., *supra* note 73.

^{76.} Interview with Aliza Kaplan, Of Couns., Forensic Just. Project (Mar. 25, 2020).

^{77.} Nicole Bremner Cásarez & Sandra Guerra Thompson, *Three Transformative Ideals To Build a Better Crime Lab*, 34 GA. ST. U. L. REV. 1007, 1011–12 (2018).

^{78.} See id. at 1044–46.

^{79.} Arizona Forensic Science Advisory Committee, supra note 9.

currently has neither funding nor full-time staff. Instead, all members have additional full-time employment and participate on a purely volunteer basis.⁸⁰

Aliza Kaplan, one of the original attorneys at the Innocence Project and co-founder with Janis Puracal of the Oregon Innocence Project,⁸¹ recently cocreated with Ms. Puracal the Forensic Justice Project to help defendants with forensics issues before trial.⁸² The Forensic Justice Project is now a resource for motions for DNA testing and motions for expert witnesses for pretrial defendants and defense counsel.⁸³ The State Board of Oregon is funding the Forensic Justice Project's work because, in Ms. Kaplan's words, "We are part of funding public defense because our defense lawyers don't know about forensic science. They need help on every level: before, during, and after. And the State has the crime lab. It's just not fair."⁸⁴

Similarly, a staff attorney, or staff person, for the Arizona Forensic Science Advisory Committee could coordinate forensic experts for defense counsel, providing a parallel to the forensic experts at the police crime lab who are readily available to testify for the prosecutor. The staff attorney could assist with basic understanding of forensic reports, ensuring the defendant has received sufficient forensic discovery to understand the results, and evaluating the fundamentals of scientific evidence in a case. While this does not take the place of a forensic expert, the position can be the bridge between the forensics community and the defense community.

2. DPS Scientific Analysis Bureau and Police Crime Labs: Opening Evidence Portals to Defense Attorneys

Texas has led the nation in criminal justice reforms and forensic science advancements over the past twenty years. Texas established the first Forensic Science Commission (TFSC), a nationally regarded accountability and reliability mechanism for forensic evidence in criminal courts, staffed with three attorneys and a commission coordinator.⁸⁵ The TFSC also requires state

^{80.} Interview with Ron Reinstein & Kent Cattani, supra note 2.

^{81.} Interview with Janis Puracal, Exec. Dir., Forensic Just. Project, at the Innocence Network Conf. in Atlanta, Ga. (Apr. 12, 2019).

^{82.} *Our Team*, FORENSIC JUST. PROJECT, https://forensicjusticeproject.org/about/our-team [https://perma.cc/FJY4-KYEN].

^{83.} Interview with Janis Puracal, *supra* note 81 ("I can partner with defenders pretrial to make sure that they are dealing with the forensics before the wrongful conviction happens . . . the hope or the great utopian vision is that at some point in time, projects like the Forensic Justice Project are going to be able to also go in and talk to prosecutors, and also go in and talk to judges, about how to assess science so that we can start weeding out some of the unreliable evidence.").

^{84.} Interview with Aliza Kaplan, *supra* note 76.

^{85.} *Texas Forensic Science Commission: About Us*, TEX. JUD. BRANCH, https://www.txcourts.gov/fsc/about-us/ [https://perma.cc/7Y9C-FEBT].

crime laboratories to "report professional negligence or professional misconduct."⁸⁶ The TFSC issues reports and observations of the reliability and integrity of lab analysts and provides recommendations for resolutions.⁸⁷

One of the labs most respected for its integrity, reliability, and transparency is the Houston Forensic Science Center. In the early 2000s, the Houston Police Department Crime Laboratory's work and procedures caused a massive scandal on wrongful convictions.⁸⁸ In response, Houston established an independent forensic laboratory, the Houston Forensic Science Center, which now is respected as a national leader among labs.⁸⁹ The Center is independent and named a death row exoneree, Anthony Graves, to its board.⁹⁰ Currently Anna Vasquez, previously wrongfully convicted and incarcerated as a member of the "San Antonio Four,"⁹¹ is a member of the board.⁹² In her words as a board member, "We don't want another episode of those few horrible years. [The Center] was made to gain the public's trust once again . . . so what we do is make sure everything is on the up and up, and every month we have a board meeting to discuss issues."⁹³ These board meetings are open to the public via videoconferencing, and recordings of each board meeting are archived and available on the Center's website.⁹⁴ Criminal

^{86.} Patrick S. Metze, Dissecting the ABA Texas Capital Punishment Assessment Report of 2013: Death and Texas, a Surprising Improvement, 51 AKRON L. REV. 219, 231 (2017) (quoting TEX. FORENSIC SCI. COMM'N, POLICIES AND PROCEDURES 2 (2010)). This includes reporting on issues of professional negligence or misconduct in both accredited forensic fields and unaccredited fields. Tex. Att'y Gen., Opinion Letter on Admissibility of Certain Forensic Analyses in Texas Courts, Statutory Authority of the Texas Forensic Science Commission, and Reporting Requirements for Certain Crime Laboratories (Jan. 17, 2017), https://www2.texasattorneygeneral.gov/opinions/opinions/51paxton/op/2017/kp0127.pdf [https://perma.cc/S2SU-QDJB].

^{87.} Metze, *supra* note 86, at 231–32.

^{88.} See generally THOMPSON, supra note 31.

^{89.} Cásarez & Thompson, supra note 77, at 1011.

^{90.} Jon Schuppe, *How Anthony Graves Went from Death Row to Overseeing the Houston Crime Lab*, NBC NEWS (June 27, 2015, 1:02 PM), http://www.nbcnews.com/news/us-news/how-anthony-graves-went-death-row-overseeing-his-local-crime-n381891 [https://perma.cc/54QM-GGNT].

^{91.} See SOUTHWEST OF SALEM: THE STORY OF THE SAN ANTONIO FOUR (Deborah S. Esquenazi Productions & Sam Tabet Pictures 2016).

^{92.} Interview with Anna Vasquez, Bd. Member, Hous. Forensic Sci. Ctr. (Mar. 24, 2020); see also Kelly Merka Nelson, One of the 'San Antonio Four' Women Has Been Appointed to Houston Forensics Board To Help Fight Injustice, SAN ANTONIO CURRENT (June 6, 2019, 3:40 PM), https://www.sacurrent.com/the-daily/archives/2019/06/06/one-of-the-san-antonio-four-women-has-been-appointed-to-houston-forensics-board-to-help-fight-injustice [https://perma.cc/GC2T-ZRBM].

^{93.} Interview with Anna Vasquez, *supra* note 92.

^{94.} Cásarez & Thompson, *supra* note 77, at 1043.

justice stakeholders have been invited to attend meetings over time and share their concerns and issues.⁹⁵

Thanks to feedback from public defenders, the Center prioritized providing "full, online access to case documentation to all participants in the criminal justice system, including the criminal defense bar."⁹⁶ Similar to the set-up in Arizona, in Houston, the Harris County District Attorney's Office and their prosecutors were once the sole deciders on what forensic information was provided to defense attorneys in a case.⁹⁷ The DA's office had access to the Center's Laboratory Information Management System, and defense attorneys did not.⁹⁸ Prosecutors generally downloaded copies of the lab's one-page summary report in drug cases and provided these "one-liners" to defense counsel, indicating only the presence or absence of a controlled substance.⁹⁹ The one-liners did not detail the tests performed by the lab.¹⁰⁰ Yet, if the defense attorneys wanted to receive the same information the prosecutors held—full case documentation—they were required to obtain a discovery order from the court.¹⁰¹

The Houston Forensic Science Center thus created a password-protected portal on its website that allowed lawyers connected with a case to have direct access complete laboratory reports, including underlying to documentation.¹⁰² For any lawyers facing difficulties with the portal, all Center case reports included a statement that lawyers connected with a drug case could obtain complete documentation through an email request.¹⁰³ The website saved Center employees time spent providing these documents and also ensured transparency and accuracy. As a next step, the Center created a searchable eDiscovery website providing access to the public of standard operating procedures, incident reports, and corrective action reports.¹⁰⁴ While defendant-specific information is limited to attorneys on the case, other information is accessible to the public, the media, and academics.¹⁰⁵ According to former board members Professor Sandra Guerra Thompson and Professor Nicole Bremner Cásarez, although the Center pursued transparency in order to strengthen public trust, "commitment to transparency has resulted

- 95. *Id.*
- 96. *Id.* at 1044.
- 97. See id.
- 98. Id.
- 99. Id.
- 100. *Id*.
- 101. Id. at 1045.
- 102. Id.
- 103. *Id.*
- 104. Id. at 1045–46.
- 105. See id.

in an added benefit: the creation of a more efficient criminal justice system that saves time and money for all participants."¹⁰⁶

The Tarrant County District Attorney's Office in Fort Worth has implemented a similar electronic discovery system.¹⁰⁷ Defense attorneys who are members of the local defense bar association (which requires a small annual fee) have access to the District Attorney's evidence portal.¹⁰⁸ Police departments and probation offices upload their evidence and forms to the portal, which is then accessible to defense attorneys as well as prosecutors.¹⁰⁹

3. Why Crime Labs Should Provide Scientific Information to Both Prosecutors and Defense Attorneys

The disclosure of scientific lab work by the lab to all parties in a criminal case is efficient and effective. Prosecutors may not know they have exculpatory and material evidence that they are required to disclose pursuant to *Brady* until right before trial, or indeed, after a defendant has pled guilty.¹¹⁰ Nationally, state court criminal trials only occur in 6% of cases; the number is 3% for federal criminal trials.¹¹¹ Instead, this scientific information can be

^{106.} Id. at 1046.

^{107.} Sandra Guerra Thompson & Nicole Bremner Cásarez, Building the Infrastructure for "Justice Through Science": The Texas Model, 119 W. VA. L. REV. 711, 734 (2016).

^{108.} E-mail from Sandra Guerra Thompson, Professor, Univ. of Houston L. Ctr., to author (June 1, 2020) (on file with author).

^{109.} See id. Currently, many of the police departments and prosecutors in Arizona use a cloud-based service called Evidence.com to upload and store evidence related to a criminal investigation and case, similar to Tarrant County. See Hayley Ringle, Peoria Police Deploy Taser Bodv Cameras, PHX. BUS. J. (July 14, 2016, 1:00AM), https://www.bizjournals.com/phoenix/blog/techflash/2016/07/peoria-police-deploy-taser-bodycameras.html [https://perma.cc/6MBU-CG3Y]. Prosecutors can see all the crime scene photos without a packet being sent to their office. See Prosecutors, AXON, https://www.axon.com/industries/prosecutors [https://perma.cc/YC3M-XGKT]. For example, Tempe Police Department pays for storage on Evidence.com to store bodycam footage, detective interviews, call detail records from phones, and any other relevant information. See CITY OF TEMPE, ANNUAL BUDGET: JULY 1, 2019–JUNE 30, 2020, at 278 (2019), https://www.tempe.gov/home/showdocument?id=76677 [https://perma.cc/NGC3-FRWD]; CITY OF TEMPE, ANNUAL BUDGET: JULY 1, 2015–JUNE 30, 2016, at 217 (2015), https://www.tempe.gov/home/showdocument?id=35297 [https://perma.cc/H4U8-XNZA].

^{110.} Miriam H. Baer, *Timing* Brady, 115 COLUM. L. REV. 1, 44 (2015) ("If ninety-five percent of the defendant pool pleads guilty, then resource-deprived prosecutors should rationally delay some of their preparation for trial until they know for sure whether a given defendant plans to plead not guilty."); *see also* Beety, *supra* note 51, at 586–87.

^{111.} Erica Goode, Stronger Hand for Judges in the 'Bazaar' of Plea Deals, N.Y. TIMES (Mar. 22, 2012), http://www.nytimes.com/2012/03/23/us/stronger-hand-for-judges-after-rulings-on-plea-deals.html [https://perma.cc/6SM8-YK4Z]; see also James E. Novak, 3 Things You Need To

shared early and systematically, avoiding any failures to disclose pretrial or pre-plea. Although under Rule of Criminal Procedure 15.1, Arizona prosecutors have a duty to disclose evidence broader than *Brady* evidence, the defense still only receives what the prosecutor gives to them.¹¹²

Again, the Rules of Civil Procedure provide many of these exact protections and concomitant transparency through robust pretrial discovery, which allows litigants and judges to thoroughly understand the forensic evidence proffered.¹¹³ Today, the vast majority of civil and criminal cases are resolved pretrial, and the inability for criminal defendants to access fundamental scientific evidence impedes justice.¹¹⁴ As noted by Professor Robert Mosteller, "[Open files] do not rely on the ethical judgment of a prosecutor involved in a fiercely competitive adversary trial process to determine what is exculpatory. Instead, they impose a blanket rule of general disclosure."¹¹⁵ Disclosure of scientific evidence by crime labs directly to all parties in a criminal case similarly avoids reliance on a prosecutor and relieves disclosure pressure on the prosecutor.

To be clear, plea offers are frequently on the table before prosecutors share evidence in discovery, and indeed, testing may not be completed.¹¹⁶ However

Know About Plea Deals and Deferred Prosecution: How To Protect Your Rights in a Plea Bargain and Deferred Prosecution, ARIZ. CRIM. DEF. ATT'Y BLOG (May 11, 2017), https://blog.arizonacriminaldefenselawyer.com/3-things-need-know-plea-deals-deferred-

114. See generally Oliva & Beety, supra note 47.

115. Robert P. Mosteller, *Exculpatory Evidence, Ethics, and the Road to the Disbarment of Mike Nifong: The Critical Importance of Full Open-File Discovery*, 15 GEO. MASON L. REV. 257, 260, 310 (2008) ("The beauty of full open-file discovery is obvious as a remedy for the difficulty of subjective choice in a competitive adversarial environment.").

116. Interview with Lindsay Herf, Dir., Ariz. Just. Project (June 19, 2020); *see also* Lorraine Longhi, *Fired Scottsdale Prosecutor Sues City. He Says He Blew Whistle on Unfair DUI Convictions*, AZCENTRAL (May 13, 2020, 11:14 AM), https://www.azcentral.com/story/news/local/scottsdale/2020/05/13/scottsdale-prosecutor-who-blew-whistle-dui-handling-suing-city/3120251001/ [https://perma.cc/5XGQ-PJ8B] ("Following

prosecution/ [https://perma.cc/TL9J-6N4L] (stating that Maricopa County reported 2.2% of criminal cases went to trial in 2016, and the United States Sentencing Commission reported similar statistics that same year, finding 2.7% of cases went to trial).

^{112.} See, for example, an empirical study comparing the open-file system of North Carolina with the closed-file system of Virginia. *See* Jenia I. Turner & Allison D. Redlich, *Two Models of Pre-Plea Discovery in Criminal Cases: An Empirical Comparison*, 73 WASH. & LEE L. REV. 285 (2016).

^{113.} As the Supreme Court has aptly recognized, due to the civil discovery rules, "civil trials in the federal courts no longer need be carried on in the dark. The way is now clear . . . for the parties to obtain the fullest possible knowledge of the issues and facts before trial." Hickman v. Taylor, 329 U.S. 495, 500–01 (1947); *see also* United States v. Procter & Gamble Co., 356 U.S. 677, 682 (1958) ("Modern instruments of discovery [and] pretrial procedures make a trial less a game of blind man's buff and more a fair contest with the basic issues and facts disclosed to the fullest practicable extent.").

having a portal that provides the scientific foundational information to both parties will make sure plea agreements are better informed and shift responsibilities from prosecutors who, for forensic evidence, are the middlemen.

4. Implementing Reform in Arizona

The current structure for the Phoenix lab is an internal portal for their Laboratory Information Management System, and then a portal open to prosecutors in the Department's record management system that includes lab reports.¹¹⁷ The Maricopa County Attorney's Office has access to the reports and can also call the lab for the reports to be sent over directly.¹¹⁸ Toxicology results are uploaded to a discovery portal accessible both to the City Prosecutor's Office and the Maricopa County Attorney's Office, which can both also access the portal or call over to receive paperwork.¹¹⁹

Defense attorneys only receive what prosecutors disclose to them—which is generally the "one-liner" report with the final results.¹²⁰ A defense attorney has to specifically ask for the contamination log or the bench notes, and ultimately seek a court order to obtain this information.¹²¹ To their credit, the lab and the Arizona Forensic Science Committee instruct defense attorneys on how to request this information—from the prosecutors.

In post-conviction, when a DPS lab discovers a hit to an old piece of evidence from a new defendant in the system, this information may not be disclosed to prosecutors or to defendants, even though it is critical to wrongful convictions.¹²² Currently the hit information is shared with law enforcement, who is the steward, but for whom the case is closed.¹²³

The Phoenix Crime Lab has this portal in existence and could provide equal access for defense attorneys as for prosecutors. The DPS crime labs could similarly provide such access. A portal with equal access for defense attorneys and for prosecutors reinforces that the labs are doing scientific work, and the lab results are not to be manipulated or used by just one side. The results are scientific findings to be equally distributed to all the parties.

Close's resignation, Acting City Prosecutor Valerie Thomsen followed up on Feb. 27 with an email referencing the policy change. 'Remember; no DUI drug plea offers until the labs come back,' Thomsen wrote.").

^{117.} Interview with Jody Wolf, supra note 72.

^{118.} See id.

^{119.} See id.

^{120.} Interview with Ryan Tait, supra note 68.

^{121.} See id.

^{122.} Interview with Lindsay Herf, supra note 116.

^{123.} See id.

Cases opened in the portal can provide results to a generic email address for the prosecutor's office and now additionally for the public defender's office or for the criminal defense bar. For post-conviction, those cases could be updated with CODIS hits when they occur, thus informing the prosecutors and the public defenders about a possible wrongful conviction. These CODIS hits should be disclosed to the defense regardless because Arizona prosecutors have a duty to disclose exculpatory evidence post-conviction to defense counsel and to the court.¹²⁴

D. Need for Reform: An Example from the DPS Scientific Analysis Bureau

Recent malfunctions at the DPS crime lab division, the SAB, prove instructive. In the case of *State v. Worthen*, in Casa Grande, Arizona, a defense attorney for a DUI client was concerned that the blood results from the lab were not accurate.¹²⁵ He asked for data for the entire "batch" in the testing run, in which his client's sample was included, to make sure the machine was properly functioning.¹²⁶ The SAB refused and referred to their policy not to disclose that information.¹²⁷ The defense attorney believed that in order to assess the reliability of the machine, and of the particular test run on his client's blood sample, he needed the data for the entire batch of samples.¹²⁸ The defense attorney requested an evidentiary hearing on whether the prosecutor should be required to disclose all the chromatograms for an entire batch run.¹²⁹

Separately, the lab analyst on the case at SAB, Greg Ohlson, was ordered not to disclose the batch data and to delete any copies of the batch data that he had made.¹³⁰ When Mr. Ohlson testified at the evidentiary hearing on May

^{124.} Arizona has adopted the ABA Model Rules of Professional Conduct 3.8(g) and (h). See ARIZONA RULES OF PRO. CONDUCT r. 3.8(g)–(h); MODEL RULES OF PRO. CONDUCT r. 3.8(g)–(h) (AM. BAR ASS'N 2020).

^{125.} See Complaint at 6, Ohlson v. Brady-Morris, No. 2:18-CV-01019-DLR (D. Ariz. Apr. 2, 2018); Megan Cassidy, Former Forensic Scientist Sues Arizona Department of Public Safety, Alleges Retaliation, AZCENTRAL (Apr. 4, 2018, 2:56 PM), https://www.azcentral.com/story/news/local/phoenix/2018/04/04/former-forensic-scientist-sues-arizona-department-public-safety-alleges-retaliation/483927002/ [https://perma.cc/E2X2-LDVK].

^{126.} See Complaint, supra note 125, at 6.

^{127.} Memorandum from Eddie Rogers, Pro. Standards Unit, Arizona Dep't of Pub. Safety, to Frank L. Milstead, Dir., Arizona Dep't of Pub. Safety 3 (Nov. 29, 2016) (on file with author).

^{128.} See Complaint, supra note 125, at 6; Cassidy, supra note 125.

^{129.} Complaint, supra note 125, at 6.

^{130.} Memorandum from Eddie Rogers to Frank L. Milstead, supra note 127, at 6-7.

23, 2016, he told the court about his superiors' directives and also opined that he disagreed with the policy.¹³¹

Mr. Ohlson was investigated for "Insubordination, Improper procedure, and Conduct adverse to the Department" due to his testimony.¹³² Mr. Ohlson had worked for DPS for twelve and a half years; he had been assigned to the SAB, Central Regional Crime Laboratory, as Forensic Scientist IV.¹³³ The superiors reviewing his behavior were law enforcement within DPS, Colonel Frank Milstead and Sergeant Eddie Rogers.¹³⁴ In the Investigative Narrative of the Professional Standards Complaint against Mr. Ohlson in a DPS interoffice memorandum, the summary alleged that the department talked with Mr. Ohlson about his

attempt to forward his personal agenda with regard to how blood alcohol analysis should be conducted and what material should be disclosed. In addition, Mr. Ohlson was instructed to modify his testimony and interviews to bring them in line with the position of the SAB and the other analysts. Finally, Mr. Ohlson was instructed to cease the scanning of his data from batch alcohol runs prior to it being technically and administratively reviewed, and to delete any such existing files.¹³⁵

The complaint was further based on Mr. Ohlson's testimony on July 7, 2016, in another evidentiary hearing in the case of *State v. Morel*, in Scottsdale.¹³⁶ The complaint alleged that Mr. Ohlson "testified in direct violation of verbal and written orders given to him."¹³⁷ Similar to *State v. Worthen*, the availability of the batch information mattered because the batch could show that the instrument was not performing normally, and the test may need to be repeated.¹³⁸ Mr. Ohlson believed that the SAB's Alcohol Toxicology Analytical Protocol Batch Acceptance Criteria was "lacking, and . . . there [was] insufficient data for acceptance criteria"—and he had raised this issue to the Crime Laboratory Superintendent.¹³⁹ Indeed, Mr. Ohlson had written the original batch acceptance criteria protocol, and the SAB leadership deleted it.¹⁴⁰ In fact, Mr. Ohlson, in his review interview with

- 131. Id. at 3.
 132. Id. at 1.
 133. Id. at 2.
 134. Id.
 135. Id.
 136. Id.
 137. Id.
 138. Id. at 12.
 139. Id.
- 140. Id.

Sergeant Rogers, stated that "[t]he American Board of Forensic Toxicology has specific criteria that we have deleted from our protocol."¹⁴¹

The summary report said that "Mr. Ohlson testified to something he wanted to get accomplished in the SAB, and against the SAB protocol, rather than testifying *to* the SAB's policies and procedures."¹⁴² When Mr. Ohlson brought up suggestions to SAB leadership to change the release of information to include defense attorneys, leadership "told Mr. Ohlson the Department was not in a position to make his proposed changes."¹⁴³

The disciplinary report concluded that as a result of Mr. Ohlson's testimony in the *Worthen* hearing in May 2016, "the SAB began to receive a high volume of requests from defense attorneys for all of the chromatograms of a batch run, instead of only the chromatograms for the attorney's client."¹⁴⁴ Mr. Ohlson apparently told his supervisors that by not releasing information (and continuing to only release it to prosecutors as they had for twenty-three years), "[W]e are withholding information, we're being secretive, we're hiding information."¹⁴⁵

In being reviewed, Mr. Ohlson told DPS, "Everything that I've done is to remain neutral as a witness for DPS, and for the State. I need to portray information to both sides equally, because if I have a bias, I am detrimental to the position of DPS. I'm a paid witness."¹⁴⁶

Mr. Ohlson notified the Law Enforcement Merit System Council and the Arizona State Board of Personnel that he was being told to alter his testimony, which he correlated to title 13, section 2804 of the Arizona Revised Statutes, which classifies tampering with a witness as a Class 6 felony.¹⁴⁷ DPS ultimately found the insubordination complaint sustained; the conduct adverse to the department or employee complaint sustained; and the improper procedure or tactic complaint unfounded.¹⁴⁸

Finally, in a third case, *State v. Chopra*, the defense attorney again requested the batch data to verify that the lab machine was appropriately analyzing the correct blood sample.¹⁴⁹ Mr. Chopra was charged with driving while impaired by alcohol, and police collected a blood sample from him.¹⁵⁰ The State alleged that a test of the sample showed Mr. Chopra's blood alcohol

^{141.} *Id*.

^{142.} Id. at 3 (emphasis added).

^{143.} Id.

^{144.} Id. at 4.

^{145.} Id.

^{146.} Id. at 8.

^{147.} Id. at 17; see ARIZ. REV. STAT. ANN. § 13-2804 (2020).

^{148.} Memorandum from Eddie Rogers to Frank L. Milstead, supra note 127, at 19.

^{149. 387} P.3d 1282, 1283 (Ariz. Ct. App. 2016).

^{150.} Id.

concentration was above the legal limit.¹⁵¹ However, Mr. Chopra moved for the crime lab to disclose the chromatograms and batch data for all samples tested that day to ensure that the laboratory testing was reliable.¹⁵² The State called it a "fishing expedition."¹⁵³

The judge ruled for Mr. Chopra and ordered the prosecutor to disclose the batch data, as he had complete access to the data unlike the defense attorney.¹⁵⁴ In response, the prosecutor filed a special action appeal to the superior court to reverse the decision in order to avoid disclosure.¹⁵⁵ When the superior court denied the prosecutor's appeal, he then appealed for special action to the Arizona Court of Appeals.¹⁵⁶ The Arizona Court of Appeals decision upheld the superior court's order directing the State to disclose the results of other blood tests in the same test batch as defendant Chopra.¹⁵⁷

The lab and the prosecutor refused to disclose this information until compelled to do so by a judge—and even then, appealed the judge's ruling in order to avoid disclosure. The disclosure was of simple scientific information of a machine in a lab: why should that information be controlled by the police and the prosecutor, particularly if a scientific crime lab holds itself out as impartial?

Ultimately, the prosecutor and lab refused to disclose information that would have proven Mr. Worthen to be innocent. The lab machine was malfunctioning and switching blood samples—leading innocent people to be wrongly identified as intoxicated and breaking the law.¹⁵⁸ The prosecutor's and lab's refusal to disclose would have, and maybe already had, led to innocent people being wrongly convicted based on false forensic evidence.¹⁵⁹ The Scottsdale lab further failed to disclose lab reports that affirmatively proved the defendants in nine cases were not guilty.¹⁶⁰

^{151.} *Id*.

^{152.} *Id.*

^{153.} *Id.* 154. *Id.*

^{154.} *Id.* 155. *Id.*

^{155.} *Id.* 156. *Id.*

^{157.} Id. at 1285.

^{158.} Interview with Ryan Tait, supra note 68.

^{159.} Lawrence Koplow, *Scottsdale Crime Laboratory*, KOPLOW L. FIRM: DUI BLOG (Apr. 24, 2015), https://duiblog.arizonaduicenter.com/2015/04/articles/scottsdale-dui-lawyer/supreme-court-scottsdale-crime-lab/ [https://perma.cc/6TL9-VPY7].

^{160.} Lorraine Longhi, *Scottsdale Didn't Disclose Favorable Lab Results to 9 People Convicted of DUI. What Now?*, AZCENTRAL (Feb. 21, 2020, 5:39 PM), https://www.azcentral.com/story/news/local/scottsdale/2020/02/21/9-dui-cases-under-review-scottsdale-failed-disclose-possible-exonerating-evidence/4780622002/ [https://perma.cc/68A7-F2BJ]. The Scottsdale lab previously was found by the Arizona Supreme Court to produce unreliable DUI tests. Lawrence Koplow, *Scottsdale DUI Blood Tests* | *Ruled Unreliable*, KOPLOW

III. ARIZONA VICTIMS

"Serving Victims, Building Trust, Restoring Hope"

State of Arizona Crime Victims Memorial at the Office of the Arizona Attorney General (dedicated April 2018)¹⁶¹

"Victims' Rights: Every case, every time." - Motto, Arizona Attorney General's Office of Victim Services¹⁶²

The victims' rights movement in Arizona has been powerful and strong ever since Arizona voters approved the Victims' Rights Amendment to the Arizona Constitution in 1990.¹⁶³ Otherwise known as the "Victims' Bill of Rights,"¹⁶⁴ voters approved the Amendment "[t]o preserve and protect victims' rights to justice and due process," and to create the right "[t]o receive prompt restitution from the person or persons convicted of the criminal conduct that caused the victim's loss or injury."¹⁶⁵ Indeed, the legislature, or citizens via referendum, have "the authority to enact substantive and procedural laws to define, implement, preserve and protect the rights guaranteed to victims by this section."¹⁶⁶ The Arizona Attorney General's Office pledges that the Office "is dedicated to a system of justice that is inclusive of crime victims," with a mission to "promote justice and healing for people affected by crime in the state of Arizona."¹⁶⁷

L. FIRM: DUI BLOG (Aug. 23, 2013), https://duiblog.arizonaduicenter.com/2013/08/articles/arizonas-new-dui-laws/scottsdale-duiblood-tests-ruled-unreliable/ [https://perma.cc/CYR6-XMCL]. For more information on the Scottsdale crime lab and problems with DUI blood tests, see Lawrence Koplow, *The Definitive Guide*, KOPLOW L. FIRM, https://arizonaduicenter.com/home2/scottsdale-dui-lawyer/ [https://perma.cc/G65H-TE8N].

^{161.} Photograph of the State of Arizona Crime Victims Memorial at the Arizona Attorney General's Office, *in Victim Services*, ARIZ. ATT'Y GEN.'S OFF., https://www.azag.gov/criminal/victim-services [https://perma.cc/8BHU-VUD7].

^{162.} Id.

^{163.} ARIZ. CONST. art. 2, § 2.1; *see also Victims' Rights Week*, ARIZ. DEP'T OF PUB. SAFETY, https://www.azdps.gov/news/digest/db21 [https://perma.cc/A3RG-5RZ2].

^{164.} ARIZ. CONST. art. 2, § 2.1.

^{165.} *Id.* art. 2, § 2.1(A). For clarity, the Victims' Bill of Rights defines a victim as "a person against whom the criminal offense has been committed or, if the person is killed or incapacitated, the person's spouse, parent, child or other lawful representative except if the person is in custody for an offense or is the accused." *Id.* art. 2, § 2.1(C).

^{166.} Id. art. 2, § 2.1(D).

^{167.} Victim Services, supra note 161.

A. All Victims Matter

All victims matter, including victims who are people of color and victims without financial resources. This basic recognition is acknowledged and supported by the Attorney General's Office, the legislature, and the Arizona State Constitution incorporating the Victims' Bill of Rights.¹⁶⁸ All victims matter.¹⁶⁹

And yet, the same dissonance exists in Arizona as in other states: a hierarchy of valued victims.¹⁷⁰ Victims who are people of color, or who are not financially stable, are less likely to receive victim services.¹⁷¹ In neighborhoods consisting of people with both characteristics, victims receive diminished services, even while their neighborhoods are over-policed.¹⁷²

This disparity is most apparent in the Valley of the Sun with property crime. Through interviews, I learned that property crimes—such as burglaries and home invasions—and particularly property crimes in low-income neighborhoods neighboring Phoenix, are rarely investigated and pursued by law enforcement. The unfortunate double consequence of the lack of response to burglaries in low-income communities is the greater impact these residents suffer through the loss of their possessions. Residents may be less able to weather the loss of their valuables than someone with a larger home in a wealthy neighborhood. Furthermore, our Arizona Crime Victim Compensation Program does not compensate victims of property crimes—yet another area that we may consider revising in the interest of victims.¹⁷³

Law enforcement agencies do not respond to burglaries and home invasions the way they respond to homicides and sexual assaults.¹⁷⁴ And yet,

^{168.} *Id.* Indeed, the Arizona Attorney General's Office states on its webpage that the Office "does not discriminate on the basis of race, color, national origin, religion, sex, age, disability or sexual orientation *in the delivery of services* or employment." *Id.* (emphasis added).

^{169.} See id.

^{170.} See generally SERED, supra note 16.

^{171.} See generally id.

^{172.} Amanda Howerton, *Police Response to Crime: Differences in the Application of Law by Race*, 4 J. ETHNICITY CRIM. JUST. 51, 51 (2006) (finding that "police exert more effort when victims are white," in terms of response time to crime scenes and "more follow-up effort after the crime has taken place").

^{173.} See also Valena E. Beety, Compensating Victims of Police Violence, 21 NEV. L.J. (forthcoming 2021) (documenting that the Arizona Crime Victim Compensation Program does not compensate for property offenses and proposing that Victim Compensation Funds consider compensation for victims of police violence); ARIZ. REV. STAT. ANN. § 41-2407 (2020) (establishing that in Arizona, fees are paid by all convicted criminal defendants, contributing to a fund administered by the Arizona Criminal Justice Commission).

^{174.} See Sexual Assault Forensic Evidence Reporting Act of 2017, Pub. L. No. 115-107, 131 Stat. 2266 (2018); see also U.S. DEP'T OF JUST., NAT'L INST. OF JUST., NCJ 250384, NATIONAL BEST PRACTICES FOR SEXUAL ASSAULT KITS: A MULTIDISCIPLINARY APPROACH (2017), https://www.ncjrs.gov/pdffiles1/nij/250384.pdf [https://perma.cc/2MQH-24EQ].

it was only a decade ago when nationally, hundreds of thousands of rape kits were discovered—untested.¹⁷⁵ Even a crime that was allegedly taken seriously—sexual assault—was not pursued by law enforcement or prosecutors. Instead, rape kits stacked untested in storage units.¹⁷⁶

Prosecutor Kym Worthy in Detroit was one of the national leaders who called for testing of sexual assault kits in 2009.¹⁷⁷ A decade later, we know the powerful results of this testing.¹⁷⁸ Testing in Detroit showed multiple repeat offenders—perpetrators committing rape upon rape in neighborhoods and across state lines.¹⁷⁹ Through DNA evidence, perpetrators identified by a rape kit in Detroit were then matched to sexual assaults in New Mexico or Texas.¹⁸⁰ For neighborhoods, the testing showed the scope and depth of the problem. For local offenders with multiple victims, the damage of those untested rape kits, sitting on shelves for years, was finally made apparent. And now, ten years later, there is less of a national backlog on testing sexual assault kits.¹⁸¹

We can learn lessons from the rape kit backlog and testing to focus now on burglaries and property crimes in low-income communities in order to provide restitution for victims and determine the scope of the problem.

^{175.} See, e.g., Detroit Kit Tests Indicate Hundreds of Serial Rapists, NPR (Jan. 13, 2018, 7:51 AM), https://www.npr.org/2018/01/13/577833643/detroit-kit-tests-indicate-hundreds-ofserial-rapists [https://perma.cc/K6VJ-D5YS]; Barbara Bradley Hagerty, An Epidemic of Disbelief. ATLANTIC (July 22, 2019, 11:17 AM), https://www.theatlantic.com/magazine/archive/2019/08/an-epidemic-of-disbelief/592807/ [https://perma.cc/J83G-LEMS]; Steve Reilly, Tens of Thousands of Rape Kits Go Untested Across USA. USA TODAY (July 30. 2015. 3:32 PM). https://www.usatoday.com/story/news/2015/07/16/untested-rape-kits-evidence-acrossusa/29902199/ [https://perma.cc/2M88-74CK].

^{176.} Hagerty, supra note 175.

^{177.} Sarah Cwiek, *After Ten Years, Detroit Rape Kit Backlog Cleared, but Still "a Long Way To Go,"* MICH. RADIO (Aug. 14, 2019), https://www.michiganradio.org/post/after-ten-years-detroit-rape-kit-backlog-cleared-still-long-way-go [https://perma.cc/YRM5-6HTP]; *see also Detroit Kit Tests Indicate Hundreds of Serial Rapists, supra* note 175.

^{178.} Interview with Kym Worthy, Prosecuting Att'y, Wayne Cnty. Prosecutor's Off. (May 13, 2020).

^{179.} Detroit Kit Tests Indicate Hundreds of Serial Rapists, supra note 175.

^{180.} Interview with Kym Worthy, *supra* note 178.

^{181.} See Ending the Backlog, END THE BACKLOG, http://www.endthebacklog.org/ending-backlog [https://perma.cc/W47T-UBD4].

B. Problem: Unanswered Property Crimes in Low-Income & Over-Policed Neighborhoods

"I think it's really not known—the vast inequities in the investigative capacities and policies of different jurisdictions."

- Anonymous Arizona crime scene investigator¹⁸²

From my interviews, I learned that many victims of property crimes no longer have trust in law enforcement for finding the culprit, let alone returning their stolen belongings.¹⁸³ Even though restitution is in the Victims' Bill of Rights, I spoke with two victims who had their homes burglarized, one of whose home was burglarized multiple times, and never had law enforcement process the crime scene.¹⁸⁴ One of the victims had video footage, and still, her case was not investigated.¹⁸⁵ Police may only take a report over the phone of a home invasion because they don't have the capacity and resources to conduct those investigations, no matter the evidence the victim may have preserved.¹⁸⁶

These victims live in over-policed, under-funded communities. First, we must acknowledge that different jurisdictions have different investigative capacities and policies.¹⁸⁷ There may simply be insufficient funding for investigating low-level offenses with patrol officers whose time is spent on multiple other responsibilities. If there is insufficient law enforcement, then police may not come out to the scene of a burglary. Less funding in a jurisdiction, unfortunately, may equate to lower-income victims not getting their property crimes investigated.

C. Harms from Non-Responsiveness

My proposal stems in part from the potential harms of non-responsiveness. The lack of response to property crimes stands in direct contrast to the over-

^{182.} Interview with Anonymous Crime Scene Investigator (May 18, 2020).

^{183.} *Id.*; Interview with Anonymous Victim I (Feb. 11, 2020); Interview with Anonymous Victim II (Feb. 13, 2020).

^{184.} Interview with Anonymous Victim I, *supra* note 183; Interview with Anonymous Victim II, *supra* note 183.

^{185.} Interview with Anonymous Victim I, supra note 183.

^{186.} *Id.* The victim's home was burglarized three times and not once did an officer come to the home, despite her video camera recording of the third break-in. *Id.* Not once was there an investigation—only a report taken over the phone. *Id.*

^{187.} See generally U.S. DEP'T OF JUST., BUREAU OF JUST. STAT., NCJ 254856, STATE AND LOCAL GOVERNMENT EXPENDITURES ON POLICE PROTECTION IN THE U.S., 2000–2017 (2020), https://www.bjs.gov/content/pub/pdf/slgeppus0017.pdf [https://perma.cc/8NAA-NNRN].

policing of drug offenses in low-income communities and communities of color.¹⁸⁸ In a libertarian state that values the importance of individual property rights as well as liberty rights,¹⁸⁹ I am surprised to see police arresting civilians for marijuana possession but not for break-ins.¹⁹⁰ Perhaps with the legalization of recreational marijuana in Arizona,¹⁹¹ more energy will be put to victims of property offenses. When a victim loses the sanctity of her home—when her home is violated—she is left with no remedy. Thus, the under-policing of property offenses like home invasions strikes a nerve.¹⁹² This lack of response, while over-policing drug offenses, breaks down relationships between communities and law enforcement.¹⁹³

Second, as noted above, we cannot know the scope or depth of the problem of burglaries if those cases are not investigated. Similar to untested rape kits, these burglary reports sit on the shelf, with repeat burglaries to the same residence or multiple burglaries in the same neighborhood being ignored. Simply solving one of these burglaries could make the entire neighborhood safer.

Finally, if these lesser property crimes are found to be committed by juveniles, people with substance use disorders, or people who are homeless,

^{188.} German Lopez, *These Maps Show the War on Drugs Is Mostly Fought in Poor Neighborhoods*, VOX (Apr. 16, 2015, 2:10 PM), https://www.vox.com/2015/4/16/8431283/drug-war-poverty [https://perma.cc/C2QC-K22J].

^{189.} See generally WILLIAM P. RUGER & JASON SORENS, FREEDOM IN THE 50 STATES (5th ed. 2018), https://cdn.freedominthe50states.org/download/2018/print-edition-2018.pdf [https://perma.cc/E9BM-66QH]; Paul Avelar & Keith Diggs, Economic Liberty and the Arizona Constitution: A Survey of Forgotten History, 49 ARIZ. ST. L.J. 355, 387–95 (2017).

^{190.} Civilians were arrested for possessing controlled substances, even though the possession of marijuana was legal in Arizona if an individual could afford the required doctor's appointment and the \$150 fee every two years for a medical marijuana card. Qualify To Become an Arizona Medical Marijuana Patient, AZMARIJUANA.COM, https://azmarijuana.com/arizona-medicalmarijuana-news/tips-arizona-medical-marijuana-card/ [https://perma.cc/5HJL-QAAC]; see also Medical Marijuana, ARIZ. DEP'T OF HEALTH SERVS., https://azdhs.gov/licensing/medicalmarijuana/index.php#renewal-information [https://perma.cc/Z9VX-8WVQ]. Now, possession is legal for anyone twenty-one and older. Prop. 207 Passes, Legalizing Recreational Marijuana in Arizona. AZFAMILY.COM (Nov. 2020). 3. https://www.azfamily.com/news/politics/election headquarters/prop-207-passes-legalizingrecreational-marijuana-in-arizona/article 4069086c-1bd9-11eb-bf0b-47d2d0a9efb3.html [https://perma.cc/B2ZX-S65Y].

^{191.} AZFAMILY, supra note 190.

^{192.} See Rod K. Brunson, Protests Focus on Over-Policing. But Under-Policing Is Also Deadly, WASH. POST (June 12, 2020, 6:10 AM), https://www.washingtonpost.com/outlook/underpolicing-cities-violent-

crime/2020/06/12/b5d1fd26-ac0c-11ea-9063-e69bd6520940_story.html [https://perma.cc/V37P-WWSR] (discussing that a "great deal of scholarship has demonstrated that under-policing also leaves residents feeling perpetually underserved and unsafe" because of "slow response times and lack of empathy for crime victims" by police "for centuries").

^{193.} See id.

some of them may be directed to a restorative justice program similar to that of Mesa Community Court.¹⁹⁴ The Mesa Community Court focuses on helping people overcome addiction and take steps to find a job and ultimately a home.¹⁹⁵ Addressing the root cause of property crimes may decrease their prevalence and protect communities.

D. Proposal: Greater Responsiveness to Property Offenses Through Crime Scene Investigators

"Nothing gets to the lab without coming out of the field."

- Gwen Gordon, ASU Forensics Professor¹⁹⁶

Over the last twenty years, crime labs increasingly hire civilians as crime scene investigators.¹⁹⁷ Historically, crime scene investigators were sworn police officers with substantial experience who rose through the ranks and gained a senior position as a detective.¹⁹⁸ Today, crime scene investigators are frequently not sworn officers and do not have police academy training.¹⁹⁹ Instead, they often have academic credentials in the fields of forensic science, criminal justice, and sub-specialties of forensic science.²⁰⁰

The work of crime scene investigators is incredibly important, generating "the underlying basis for all subsequent analysis of the scene: the evidence collected *and the items not collected* for all parties involved in an

196. Interview with Gwen Gordon, Forensics Professor, Ariz. State Univ. (Jan. 15, 2020). ("So if the evidence is not collected, it's never going to be looked at").

197. See Ryan Flynn, Civilians Seen as Option for Forensic Units; Union Disagrees, NEW HAVEN REG. (May 3, 2015, 11:40 PM), https://www.nhregister.com/connecticut/article/Civilians-seen-as-option-for-forensic-units-11361637.php [https://perma.cc/PT85-G4KG].

198. Peter Joseph Salicco, *Staffing a Crime Scene Investigation Unit from Sworn to Civilian:* A Solution for Law Enforcement Operations, 4 J. FORENSIC SCIS. & CRIM. INVESTIGATION 1, 4 (2017).

199. Id.

200. Id. at 3; see also Renuka Devi Watalingam, Nicole Richetelli, Jeff B. Pelz & Jacqueline A. Speir, Eye Tracking To Evaluate Evidence Recognition in Crime Scene Investigations, 280 FORENSIC SCI. INT'L 64 (2017) ("[E]xperts, as a group, perform better than their novice counterparts with less experience.").

^{194.} *Mesa Community Court*, MESA MUN. CT. (June 2018), https://www.mesaaz.gov/home/showdocument?id=30166 [https://perma.cc/UT5K-KTS3]. "The Mesa Community Court has broad based eligibility and is not offense specific. In other words, any recognition by law enforcement, prosecutors, defense attorneys, or judges of underlying social problems as primary contributors to the offense may refer the case to Community Court." *Id.*

^{195.} *Id.* "The Mesa Community Court recognizes that low level offenses are rooted in social circumstances, such as homelessness, mental health issues, unemployment, and chemical dependency." *Id.* On February 7, 2020, I visited the Mesa Community Court and witnessed much of this in person.

investigation."²⁰¹ Crime scene investigators document the condition of the crime scene and gather the evidence to be tested later in the lab. Indeed, they are vitally tasked with "document[ing] a crime scene in such a way that it preserves the context of the evidence to ensure others can later understand not just what was collected, but also where, how, and in what condition it was found. *This context can change the interpretation or value of the evidence*."²⁰²

A crime scene investigator is generally a forensic science practitioner who will conduct "documentation, search[es] for or identif[ication of] evidence, evidence collection, evidence interpretation, and preservation of evidence."²⁰³ A crime scene investigation is "multi-disciplinary and involves a systematic search of the crime scene, meticulous observation and documentation of the crime scene, the identification, processing, collection, and preservation of physical evidence, and careful reasoning to the facts."²⁰⁴ Under their guiding principles, crime scene investigators are expected to "ensure they are using methods considered scientifically reliable and valid within the forensic community . . . based on peer-reviewed studies and/or validated prior to use on scenes."²⁰⁵

1. Shift Police Budgets To Fund More Civilian Crime Scene Investigators

My proposal is greater responsiveness to property offenses by law enforcement through hiring less expensive and better-trained civilian crime scene investigators. Studies show that civilian crime scene investigators are more effective at solving property crimes and finding investigative leads than police officers for a couple of reasons.²⁰⁶

First, police officers are tasked with multiple responsibilities, not simply crime investigation. Hiring civilian crime scene investigators who can focus specifically on responding to crime locations and documenting the scene is far less expensive, and more successful, than tasking police officers with the same responsibility.²⁰⁷

207. Id.

^{201.} AM. ACAD. OF FORENSIC SCIS., CRIME SCENE INVESTIGATION GUIDING PRINCIPLES § 4.4 (2020) (emphasis added).

^{202.} Id. § 4.5 (emphasis added).

^{203.} Id. § 3.2.

^{204.} Id. § 3.3.

^{205.} Id. § 4.3.

^{206.} ROBERT C. DAVIS ET AL., NAT'L CRIM. JUST. REFERENCE SERV., CIVILIAN STAFF IN POLICING: AN ASSESSMENT OF THE 2009 BYRNE CIVILIAN HIRING PROGRAM, at iv (2013), https://www.ncjrs.gov/pdffiles1/nij/grants/246952.pdf [https://perma.cc/Y2MV-ZC32].

Second, police officers may not receive the same training as a civilian whose sole job is to process crime scenes and the evidence taken from the crime scene. In Arizona, civilian crime scene units now have an eighteenweek intensive training program, followed by four months of supervised casework with a supervisor on every crime scene.²⁰⁸ Ultimately, a civilian crime scene investigator will work for two years before they are fully unsupervised.²⁰⁹ Despite this extensive training, civilian crime scene investigators are still substantially less expensive to onboard and to maintain than patrol officers, in large part because their work is so focused.²¹⁰

One interviewee shared the following example of arriving on a crime scene:

[The patrol officer says] they broke through the front door, they burglarized the house, and so there's nothing else to process but this room. So, I got there, and I started processing and I noticed there was a wrench in a weird place. And I talked to the owner, I'm like, "Is this wrench yours?" "Oh, that's mine, but that wasn't there. That was somewhere else." And then he opens the back window and the window's broken. So, the door had been broken from before. He'd actually come through the back window. You have to listen to the officer, but then you have to evaluate yourself and you have to evaluate: what surfaces am I going to be able to get prints on? Cause you can't get prints on most surfaces, a lot of surfaces. So you have to be able to evaluate. I have to be efficient but how am I going to be thorough? How am I going to collect this evidence? What order am I going to do things? And that can vary.²¹¹

Third, a civilian crime scene investigator sees the front end and the back end of the evidence. The civilian investigator recognizes the importance of what information is gathered at the scene because she sees how that evidence is analyzed in the lab.²¹² As just one related example, medical examiners may not be able to discern the body part they are examining in photos captured by officers.

For property offenses, civilian crime scene investigators are more effective and less expensive than patrol officers. A budget line item for civilian crime scene investigators can accomplish more—and hire more people—than requiring police officers to process crime scenes, particularly

^{208.} Interview with Gwen Gordon, supra note 196.

^{209.} Id.

^{210.} Id.

^{211.} Interview with Anonymous Crime Scene Investigator, supra note 182.

^{212.} Interview with Gwen Gordon, *supra* note 196 ("You'd be surprised how often burglars get thirsty and drink water from the people and leave their cups somewhere.").

for property crimes.²¹³ Notably, crime scene requests for funding can reveal a division of labor between officers and civilians.²¹⁴

2. Unbiased Crime Scene Investigators and Independent Labs

Despite the lower overall cost of hiring civilian crime scene investigators, resources are often a challenge for crime labs that are governed by law enforcement. Since 2009, the NAS has advocated for crime labs to be independent.²¹⁵ In this scenario, the lab director would answer directly to the Governor and have an independent budget rather than working within DPS and under law enforcement. An independent crime lab would have more focus for its budget, and ideally could spend some of that budget on hiring more civilian crime scene investigators in a way that is not at the expense of law enforcement and police in the field.

The American Association of Forensic Sciences Standards Board recently proposed national Crime Scene Investigation Guiding Principles to supplement international standards.²¹⁶ These principles are "designed to guide forensic science practitioners within the discipline of crime scene investigation."²¹⁷ Crime scene investigation is taken seriously among scientists and analysts in the forensic sciences. The primary focus of an investigation, in the eyes of these guiding standards, is to process a crime scene "in a manner that is safe and best preserves the evidence and its context. . . . [T]he following guiding principles . . . are meant to protect the crime scene investigator and the integrity of the evidence."²¹⁸ These guiding principles include scientific validity; transparency; preserving context; preventing loss, contamination, tampering, or alteration; and an awareness of ethics and bias.²¹⁹

^{213.} See WILLIAM R. KING & JEREMY M. WILSON, INTEGRATING CIVILIAN STAFF INTO POLICE AGENCIES 8 (2014), https://cops.usdoj.gov/RIC/Publications/cops-p290-pub.pdf [https://perma.cc/K2P7-R3JN].

^{214.} Interview with Nicole Sanders, Crime Scene Section Supervisor, Phx. Police Dep't Crime Lab'y (Mar. 23, 2020). Notably, crime scene investigators were essential personnel during the COVID-19 pandemic and provided very important work. *See id.*

^{215.} NAS REPORT, supra note 20, at 23–24.

^{216.} AM. ACAD. OF FORENSIC SCIS., supra note 201, at 3; see also Erin Forry, International Organization for Standardization (ISO) Technical Committee (TC) 272 on Forensic Sciences— New International Standards Under Development, OSAC NEWSL., May 2018, at 1, 1 https://www.nist.gov/magazine/osac-newsletter/may-2018 [https://perma.cc/L8GQ-RHFZ].

^{217.} AM. ACAD. OF FORENSIC SCIS., supra note 201, at 3.

^{218.} Id. § 1.

^{219.} Id. §§ 4.3–4.7.

The problem of potential bias and independence is particularly relevant for the crime scene investigators of police-governed crime labs.²²⁰ As noted above, crime scenes are the foundational basis of all criminal investigations, determining what evidence is collected and what evidence is discarded from a scene. Because each crime scene is different, the quality controls applied to latent prints or toxicology are not as easily standardized and applied to crime scene investigation.²²¹ This lack of defined steps for quality control—such as sequential unmasking—increases the potential for bias because bias "cannot as easily be engineered out."²²² Crime scene investigators are trusted with "prevent[ing] the loss of evidence," and preventing "evidence from being contaminated or altered, intentionally or unintentionally."²²³ Indeed, collecting the wrong information or mis-collecting evidence can derail or mislead an investigation, directing further efforts down the wrong path.²²⁴

As noted in forensics scholarship, because of the unique position of crime scene investigators at the intersection of scientific and law enforcement investigations, their impartiality and independence are crucial.²²⁵ The guidelines say they "shall remain unbiased and work for the facts, independent of external influences."²²⁶ Indeed, the National Commission on Forensic Science created a national Code of Ethics and requested, as its last act, that the Department of Justice adopt the Code of Ethics to emphasize the importance of impartiality and independence for crime lab employees.²²⁷

In other areas of forensic science, pressure from law enforcement to change findings has been documented.²²⁸ A national survey of medical examiners revealed that 70% of respondents were subjected to outside pressures to influence their findings in death investigations.²²⁹ When medical

^{220.} NAS REPORT, supra note 20, at 56-57.

^{221.} See id.

^{222.} Interview with Gwen Gordon, *supra* note 196.

^{223.} AM. ACAD. OF FORENSIC SCIS., supra note 201, § 4.6.

^{224.} Id. § 4.7.

^{225.} *Id.*; see also ROBIN T. BOWEN, ETHICS AND THE PRACTICE OF FORENSIC SCIENCE 33–37 (2d ed. 2018); Itiel E. Dror, *Cognitive Neuroscience in Forensic Science: Understanding and Utilizing the Human Element*, 370 PHIL. TRANSACTIONS ROYAL SOC'Y B 1, 3 (2015).

^{226.} AM. ACAD. OF FORENSIC SCIS., *supra* note 201, § 4.7.

^{227.} The Department of Justice failed to do so, and the work of the Commission was terminated. *See generally* NAT'L COMM'N ON FORENSIC SCI., RECOMMENDATION TO THE ATTORNEY GENERAL: NATIONAL CODE OF PROFESSIONAL RESPONSIBILITY FOR FORENSIC SCIENCE AND FORENSIC MEDICINE SERVICE PROVIDERS (2016), https://www.justice.gov/archives/ncfs/page/file/831746/download [https://perma.cc/W6C4-WZFS].

^{228.} Judy Melinek et al., National Association of Medical Examiners Position Paper: Medical Examiner, Coroner, and Forensic Pathologist Independence, 3 ACAD. FORENSIC PATHOLOGY 93, 94 (2013).

^{229.} Id. at 93.

examiners resisted these pressures, many of them suffered negative consequences.²³⁰ Twenty-two percent of responding pathologists had "experienced political pressure to change death certificates from elected and/or appointed political officials."²³¹ Political officials pressured them through "verbal and/or written communications, threats, termination, intimidation, media exposure, and even legal actions."²³² As the Minnesota Supreme Court opined, "[S]ome police and prosecutors tend to view government-employed forensic scientists ... as members of the prosecution's 'team."²³³

The NAS Report put it simply, "The best science is conducted in a scientific setting as opposed to a law enforcement setting."²³⁴ Independent labs may be better able to control their own budgets and hire crime scene investigators while also being less susceptible to law enforcement bias and identification. The hiring of civilian crime scene investigators can lead to greater response to property crimes, better connections with communities, and identification of repeat offenders.

CONCLUSION

In conclusion, this Article identifies two ways to strengthen forensic evidence and the criminal legal system in Arizona. The first is for the labs to open their existing portals containing lab analysis information on cases to defense attorneys, not just to prosecutors. Lab portal access for defense attorneys to scientific results will create greater transparency, emphasize the independence of the crime labs, and resolve any *Brady* discovery issues because forensic evidence will be available to both parties throughout the proceedings. The second is to listen to victims and shift more police funding to crime scene investigators in order to be responsive to property crimes in working-class neighborhoods. Both proposals will provide greater transparency and integrity to our criminal legal system.

^{230.} Id.; Beety, supra note 62, at 1002.

^{231.} Melinek et al., *supra* note 228, at 94. Roughly 10% of respondents were asked to sign autopsy reports and death certificates that were not consistent with the findings in the original autopsy report. *Id.*

^{232.} Id.

^{233.} State v. Beecroft, 813 N.W.2d 814, 834 (Minn. 2012).

^{234.} NAS REPORT, *supra* note 20, at 23 ("Scientific and medical assessment conducted in forensic investigations should be independent of law enforcement efforts either to prosecute criminal suspects or even to determine whether a criminal act has indeed been committed. Administratively, this means that forensic scientists should function independently of law enforcement administrators.").