

How to Lie with Rape Statistics: America's Hidden Rape Crisis

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ABSTRACT: During the last two decades, many police departments substantially undercounted reported rapes creating "paper" reductions in crime. Media investigations in Baltimore, New Orleans, Philadelphia, and St. Louis found that police eliminated rape complaints from official counts because of cultural hostility to rape complaints and to create the illusion of success in fighting violent crime. The undercounting cities used three difficult-to-detect methods to remove rape complaints from official records: designating a complaint as "unfounded" with little or no investigation; classifying an incident as a lesser offense; and, failing to create a written report that a victim made a rape complaint.

This study addresses how widespread the practice of undercounting rape is in police departments across the country. Because identifying fraudulent and incorrect data is essentially the task of distinguishing highly unusual data patterns, I apply a statistical outlier detection technique to determine which jurisdictions have substantial anomalies in their data. Using this novel method to determine if other municipalities likely failed to report the true number of rape complaints made, I find significant undercounting of rape incidents by police departments across the country. The results indicate that approximately 22% of the 210 studied police departments responsible for populations of at least 100,000 persons have substantial statistical irregularities in their rape data indicating considerable undercounting from 1995 to 2012. Notably, the number of undercounting jurisdictions has increased by over 61% during the eighteen years studied.

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Correcting the data to remove police undercounting by imputing data from highly correlated murder rates, the study conservatively estimates that 796,213 to 1,145,309 complaints of forcible vaginal rapes of female victims nationwide disappeared from the official records from 1995 to 2012. Further, the corrected data reveal that the study period includes fifteen to eighteen of the highest rates of rape since tracking of the data began in 1930. Instead of experiencing the widely reported “great decline” in rape, America is in the midst of a hidden rape crisis. Further, the techniques that conceal rape complaints deprioritize those cases so that police conduct little or no investigation. Consequently, police leave serial rapists, who constitute the overwhelming majority of rapists, free to attack more victims. Based upon the findings of this study, governments at all levels must revitalize efforts to combat the cloaked rise in sexual violence and the federal government must exercise greater oversight of the crime reporting process to ensure accuracy of the data provided.

INTRODUCTION.....	1200
I. POLICE UNDERCOUNTING OF RAPE COMPLAINTS.....	1206
A. <i>UNIFORM CRIME REPORTS</i>	1206
1. Rape Data.....	1208
2. Study Data.....	1210
B. <i>MEDIA INVESTIGATION OF POLICE UNDERCOUNTING</i>	1212
C. <i>WHY POLICE UNDERCOUNT</i>	1214
1. Political Forces.....	1214
2. Cultural Forces.....	1218
D. <i>HOW POLICE UNDERCOUNT</i>	1220
1. “Unfounded” Designation.....	1221
2. Lesser-Crime Classification.....	1223
3. Police Gatekeeping.....	1224
II. IDENTIFYING UNDERCOUNTING POLICE DEPARTMENTS.....	1225
A. <i>ESTABLISHING A BASELINE</i>	1225
1. Murder Rate Baseline.....	1225
2. Removing National Trends.....	1226
B. <i>PROFILE OF A TYPICAL JURISDICTION</i>	1227
C. <i>PROFILE OF AN UNDERCOUNTER</i>	1228
D. <i>TESTING POLICE DEPARTMENTS</i>	1232
III. ESTIMATING THE LOST DATA.....	1238
IV. IMPLICATIONS.....	1241
A. <i>MORAL DIMENSION</i>	1241

B. DEPRIORITIZATION..... 1245

CONCLUSION 1248

APPENDIX A: JURISDICTIONS IN STUDY SAMPLE 1250

"I'll swallow a lie when I have to; I've swallowed a few big ones lately. But the stat games? That lie? It's what ruined this department; shining up s**t and calling it gold so majors become colonels and mayors become governors; pretending to do police work while one generation f*****g trains the next how not to do the job." —Cedric Daniels, *The Wire*¹

INTRODUCTION

Cedric Daniels uttered those words in the series finale of *The Wire* before he resigned his position as the fictional Police Commissioner of Baltimore.² Daniels refused to fabricate reductions in crime rates by manipulating the statistics, as was the long-term practice in the city's police department. He believed that the so-called "stat games" advanced careers, but ultimately undermined law enforcement by encouraging police to short-circuit investigations and remove reported incidents from official records.

In a case of life imitating art,³ just a year after *The Wire* ended, a reporter from *The Baltimore Sun* exposed the Baltimore Police Department's practice of substantially undercounting reported rapes in the data it submitted to the Federal Bureau of Investigation ("FBI") as part of the Uniform Crime Report ("UCR") program.⁴ The FBI collects data from nearly every police department across the country to create the annual UCR,⁵ which has long served as the primary resource used by policymakers, media, and law enforcement for assessing the prevalence and rate of crime in the United States.⁶ From 1995 until 2009, the Baltimore Police Department provided

1. *The Wire*: -30- (HBO television broadcast Mar. 9, 2008).

2. *Id.*

3. The more precise statement might be "life imitating art, which was imitating life." David Simon, the creator of *The Wire*, stated that he took his depiction of police manufacturing crime statistics directly from his firsthand experience as a long-time crime reporter for *The Baltimore Sun* observing the Baltimore Police Department. See David Simon, *David Simon: 'The Wire' Has Nothing to Apologize for*, BALT. SUN (Jan. 24, 2011), http://articles.baltimoresun.com/2011-01-24/news/bs-ed-the-wire-20110124_1_arrest-rates-commissioner-bealefeld-crimes (describing the process by which police "improperly downgrade[d]" crimes in official counts under the administration of Baltimore Mayor, now Maryland Governor, Martin O'Malley).

4. See Justin Fenton, *Baltimore Falls Out of Top 5 Murder Rate Cities: Rape Numbers Also on the Rise Following Reforms*, BALT. SUN (June 11, 2012, 7:06 PM), <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-ci-baltimore-murder-rate-20120611.0.5457597.full.story> (detailing the role of *The Baltimore Sun* in uncovering police underreporting of rape to the FBI as part of the UCR program).

5. See NATHAN JAMES & LOGAN RISHARD COUNCIL, CONG. RESEARCH SERV., RL34309, HOW CRIME IN THE UNITED STATES IS MEASURED 5-6 (2008), available at <https://www.fas.org/sgp/crs/misc/RL34309.pdf>.

6. See *id.* at 2 ("UCR data are now used extensively by academics and government officials for research, policy, and planning purposes, and the data are widely cited in the media. The UCR also provides some of the most commonly cited crime statistics in the United States."); LARRY J. SIEGEL, CRIMINOLOGY 30 (11th ed. 2012) ("The UCR is the best known and most widely cited source of official criminal statistics."); Kimberly A. Lonsway & Joanne Archambault, *The "Justice Gap" for Sexual Assault Cases: Future Directions for Research and Reform*, 18 VIOLENCE AGAINST WOMEN 145, 149 (2012) ("[Widespread citation to the UCR] is . . . likely attributable

UCR numbers that indicated that the rate of rape had declined by a remarkable 74% in the city.⁷ The investigation by *The Baltimore Sun* ultimately demonstrated that the incredible reported reduction in rape was the product of police providing inaccurate crime statistics creating the illusion of success in fighting crime.⁸

Unfortunately, the Baltimore Police Department is not alone in producing defective UCR rape statistics during the past two decades. Media investigations also caught police in New Orleans, Philadelphia, and St. Louis “red-handed” submitting crime statistics that substantially undercounted the number of rapes in their respective jurisdictions.⁹ Those four police departments lowered their official counts of rape incidents through three difficult-to-detect techniques.¹⁰ First, police departments exploited the UCR rule that they did not have to count reported rapes if they “determine[d] that complaints of [rape were] unfounded or false.”¹¹ In all four cities caught submitting false rape statistics, the police labeled a large percentage of cases as “unfounded” while performing little or no investigation.¹² The

to the credibility afforded by the FBI’s prominent support of the [UCR], which may understandably lead public officials, members of the media, and the public to conclude that the UCR is the authoritative source for information on crime reporting.”).

7. See *infra* Part II.B.

8. See Fenton, *supra* note 4.

9. See Mark Fazlollah et al., *How to Cut City’s Crime Rate: Don’t Report It*, PHILLY.COM (Nov. 1, 1998), http://articles.philly.com/1998-11-01/news/25732373_1_fbi-survey-crime-statistics-crime-rate (describing the process the Philadelphia police used to avoid reporting rapes to the FBI as part of the UCR program); Jeremy Kohler, *Waivers Wipe Out Reports of Rape*, ST. LOUIS POST-DISPATCH, Aug. 29, 2005, at A1, available at 2005 WLNR 24321943 (“Sex crimes detectives used [rape complaint] waivers several dozen times in the previous two years, a *Post-Dispatch* review has found. Many of the cases went uncounted in crime statistics, although they should have been included under uniform crime reporting guidelines.” (emphasis added)); Laura Maggi, *NOPD Downgrading of Rape Reports Raises Questions*, NOLA.COM (July 11, 2009, 9:02 PM), http://www.nola.com/news/index.ssf/2009/07/nopd_downgrading_of_rape_repor.html (“More than half the time New Orleans police receive reports of rape or other sexual assaults against women, officers classify the matter as a noncriminal ‘complaint.’”); Michael Matza, *Victims’ Testimony at Congressional Hearing Show “Chronic Failure” in Rape Investigations*, PHILLY.COM (Sept. 15, 2010), http://articles.philly.com/2010-09-15/news/24975374_1_fbi-law-enforcement_definition (“Philadelphia police had severely underreported rapes for decades through the 1990s, a problem brought to light by *Inquirer* investigative reporting” (emphasis added)).

10. Because the FBI provides little to no oversight regarding the numbers reported by police departments, absent the rare investigative journalism, police have been free to “cook the books” without fear of discovery. See Michael D. Maltz, *Missing UCR Data and Divergence of the NCVS and UCR Trends*, in UNDERSTANDING CRIME STATISTICS: REVISITING THE DIVERGENCE OF THE NCVS AND UCR 269, 270 (James P. Lynch & Lynn A. Addington eds., 2007).

11. See FED. BUREAU OF INVESTIGATION, U.S. DEP’T OF JUSTICE, CRIME IN THE UNITED STATES, 2011: METHODOLOGY 2 (2012) [hereinafter UCR METHODOLOGY], available at http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/methodology_final.pdf (“When, through investigation, an agency determines that complaints of crimes are unfounded or false, the agency eliminates that offense from its crime tally through an entry on the monthly report.”); see also Fenton, *supra* note 4; Kohler, *supra* note 9; Maggi, *supra* note 9.

12. Fenton, *supra* note 4; Kohler, *supra* note 9; Maggi, *supra* note 9.

city police department in St. Louis even institutionalized the practice by browbeating wavering rape victims¹³ into signing a form relieving police from any obligation to investigate the complaints.¹⁴ Second, the police departments suppressed their reported numbers by regularly classifying rape complaints as lesser offenses that were not part of the core UCR statistics sent to the FBI.¹⁵ In New Orleans, the police used a code phrase, “Signal 21,” to designate over half of rape complaints as “noncriminal” matters.¹⁶ Similarly, Philadelphia police classified numerous rape complaints as “investigate persons,” an internal department designation that was not reported to the FBI.¹⁷ Third, police officers in those jurisdictions often failed to create any written record that a victim made a rape complaint to eliminate the incident from the UCR data.¹⁸ Using those methods, the

13. There has been an ongoing conflict as to whether “rape victim” or “rape survivor” is the more appropriate phrase to use. See David Mills, *Issues; Semantics of Rape Language vs. What’s Politically Correct*, WASH. POST, Nov. 22, 1991, at B05, available at 1991 WLNR 4893197. The argument against using the word “victim” is primarily based upon the idea that the passivity of the word is disempowering. See, e.g., EDWARD W. GONDOLF WITH ELLEN R. FISHER, BATTERED WOMEN AS SURVIVORS: AN ALTERNATIVE TO TREATING LEARNED HELPLESSNESS 17–18 (1988); Evelyn Mary Aswad, *Torture by Means of Rape*, 84 GEO. L.J. 1913, 1916 n.11 (1996); Martha R. Mahoney, *Exit: Power and the Idea of Leaving in Love, Work, and the Confirmation Hearings*, 65 S. CAL. L. REV. 1283, 1310–11 & n.115 (1992). “Survivor” became a preferred term among such persons because it indicated that the person who was raped had moved past the trauma of the experience of rape. See, e.g., Rhona Dowdeswell, *Why I Must Forgive to Get Over My Rape; Analysis*, W. DAILY PRESS, Jan. 25, 2002, at 8. In contrast, Andrea Dworkin offered perhaps the strongest defense of using the word “victim” in this context:

It’s a true word. If you were raped, you were victimized. You damned well were. You were a victim. It doesn’t mean that you are a victim in the metaphysical sense, in your state of being, as an intrinsic part of your essence and existence. It means somebody hurt you. They injured you.

And if it happens to you systematically because you are born a woman, it means that you live in a political system that uses pain and humiliation to control and to hurt you.

Andrea Dworkin, *Woman-Hating Right and Left*, in *THE SEXUAL LIBERALS AND THE ATTACK ON FEMINISM* 28, 38 (Dorchen Leidholdt & Janice G. Raymond eds., 1990). Numerous persons who have been raped have stated that they prefer the term “victim” because it allows them to better confront the crime against them. See Kate E. Bloch, *A Rape Law Pedagogy*, 7 YALE J.L. & FEMINISM 307, 308 n.6 (1995). I ultimately decided to use “victim” because of those persuasive arguments and because “victims” is the label the statistics I discuss in this Article address all those who report crime, not just rape.

14. Kohler, *supra* note 9 (describing the rape complaint “waivers” process wherein alleged rape victims who did not want to pursue prosecution were told they had to sign the waiver classifying their rape complaint as “unfounded”).

15. Fenton, *supra* note 4; Matza, *supra* note 9.

16. Maggi, *supra* note 9.

17. Fazlollah et al., *supra* note 9.

18. One scholar estimated that Baltimore police created no written record in 40% of rape complaints from 2003 to 2010. See *Rape in the United States: The Chronic Failure to Report and Investigate Rape Cases: Hearing Before the Subcomm. on Crime and Drugs of the S. Comm. on the Judiciary*, 111th Cong. 12–14 (2010) [hereinafter *Senate Hearing on Rape in the United States*]

police departments in Baltimore, New Orleans, Philadelphia, and St. Louis created fictional drops in violent crime rates and claimed success in their battles against sexual violence.¹⁹

This Article asks whether other police departments submitted false rape statistics but eluded media exposure because of the difficulty of detecting crime-statistics undercounting through ordinary investigation.²⁰ To answer that query, I utilize a statistical outlier detection method to identify cities with highly unusual patterns in their submitted crime data.²¹ From 1995 to 2012, I identify 46 police departments responsible for jurisdictions of at least 100,000 persons that likely substantially undercounted the number of rapes reported in at least one-third of those eighteen years.²² Those 46 police departments appear, based on anomalies in the data they submitted, to have used questionable reporting techniques to create the false impression of decreasing violent crime. Notably, the four cities that previously had their undercounting exposed (Baltimore, New Orleans, Philadelphia, and St. Louis) submitted outlier data in all 72 of the studied city-years. Further, Atlanta, Dallas, Milwaukee, Mobile, Oakland, and Washington, D.C., which have been suspected of misconduct in reporting crime statistics, submitted statistically dubious rape statistics in 92 of their 108 total reports to the FBI during the study period.²³

(statement of Carol E. Tracy, Women's Law Project); *see also* Fenton, *supra* note 4; Kohler, *supra* note 9; Matza, *supra* note 9.

19. *See* Fenton, *supra* note 4; Kohler, *supra* note 9; Maggi, *supra* note 9; Matza, *supra* note 9.

20. Local rape crisis centers and other rumors have led many to believe that undercounting rape is still widespread. *See* Press Release, Feminist Majority Found., American Women Must not Be Fooled: Smeal Calls for National Reform in Rape Reporting and Investigating (Sept. 14, 2010), *available at* <http://www.feminist.org/news/presstory.asp?id=12626>.

21. *See infra* Part II.B.

22. For a full list of the 46 jurisdictions with highly suspicious data, *see infra* Appendix A.

23. *See Senate Hearing on Rape in the United States, supra* note 18, at 12–13 (statement of Carol E. Tracy) (testifying about reports that Milwaukee, Baltimore, and Philadelphia had been undercounting rapes in their UCR statistics); Jane Gross, *To Some Rape Victims, Justice Is Beyond Reach*, N.Y. TIMES (Oct. 12, 1990), <http://www.nytimes.com/1990/10/12/us/to-some-rape-victims-justice-is-beyond-reach.html> (discussing the long term suspicions that the Oakland police undercount rapes by classifying complaints as “unfounded” or failing to create written reports); Dave Hiott, *Crime in Dallas: Some FAQ on the Confusing World of Statistics*, DALLAS NEWS (Dec. 5, 2008, 2:00 AM), <http://crimeblog.dallasnews.com/2008/12/crime-in-dallas-some-faq-on-th.html> (discussing suspicions that Dallas police had undercounted crime incidents); Ron Martz, *Crime Stats: Questions Linger After Atlanta Audit*, ATLANTA J. & CONST., Jan. 28, 1999, at C, *available at* 1999 WLNR 3399577 (describing the process by which Atlanta police were alleged to have undercounted rape incidents); Robert McClendon, *Mobile's Altered Crime Reports Not Limited to Single Officer, Unidentified Fellow Officers Say*, AL.COM (June 30, 2013, 8:25 AM), http://blog.al.com/live/2013/06/mobiles_altered_crime_reports.html (outlining the downgrading of offenses to undercount crimes in Mobile, Alabama); Joanna Walters, *Washington Police Accused of 'Disturbing' Failures to Investigate Rape*, GUARDIAN (Jan. 17, 2013, 6:00 AM), <http://www.theguardian.com/world/2013/jan/17/washington-police-accused-rape-failures> (describing the Metropolitan Police Department's failure to investigate rape complaints or test rape kits).

Jurisdictions providing inaccurate rape numbers have significantly altered the historical statistics regarding the prevalence of rape in America and, as a result, our society's understanding of the magnitude of sexual violence in this country. Unfortunately, the data indicate that police undercounting is on the rise as the number of undercounting jurisdictions rose over 61% during the study period. In this study, I correct the UCR data from 1995 to 2012 to include the estimated number of incidents of rape reported to the police, but not to the FBI. In total, utilizing a conservative estimation technique, I find that approximately 796,213 to 1,145,309 forcible vaginal rapes with female victims were not included in the UCR due to police undercounting during that time. Further, the corrected data indicates that the years from 1995 to 2012 include fifteen to eighteen of the highest rates of rape since the UCR began reporting rape data in 1930. In contrast to the widely held conventional wisdom, the rate of rape in America has not decreased over the last twenty years, as has been the case for other violent crimes. Instead, America is in a crisis of sexual violence that has gone undetected because police departments across the country systemically underreport rape.

The widespread police practice of underreporting rapes also creates significant moral and policy problems. Police often aggressively interrogate and harass rape victims—pressing them to recant their allegations.²⁴ In other cases, police assure victims that they are busy working on their cases when no actual investigation occurs because the complaint is already labeled “unfounded.”²⁵ That police revictimize, by harassing or lying to, rape victims is unconscionable. Further, undercounting results in police failing to fully investigate rape complaints leaving serial rapists, who one study indicates commit an estimated 91% to 95% of all rapes, free to rape, and sometimes murder, more victims.²⁶ Notably, of the cities that have been exposed for failing to test large numbers of rape kits, the large majority are also identified in this study as undercounting rapes.²⁷ It seems likely that the failure to test kits and the intentional undercounting of rape are related because both phenomena are connected to the police decision to not investigate particular rape complaints. In addition, when police classify rape complaints as lesser offenses to avoid reporting the crimes to the FBI, far fewer resources are allocated toward the investigations.²⁸ The result is much the same as an “unfounded” classification because police departments do

24. See, e.g., Justin Fenton, *Focus on Shootings Contributed to Neglect of City Rape Claims, Bealefeld Says*, BALT. SUN (July 19, 2010, 9:31 PM), <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-ci-bealefeld-rape-investigation20100719,0,7471837.story> (describing the techniques used by Baltimore police to get rape complainants to recant).

25. See Lonsway & Archambault, *supra* note 6, at 160–61.

26. See Kimberly A. Lonsway, *Trying to Move the Elephant in the Living Room: Responding to the Challenge of False Rape Reports*, 16 VIOLENCE AGAINST WOMEN 1356, 1365 (2010).

27. See *infra* Part IV.B.

28. Lonsway & Archambault, *supra* note 6, at 148–49, 160–61 (describing the lower priority given to investigations when downgraded from rape).

not prioritize crimes classified as low-level sexual assaults.²⁹ Thus, undercounting police departments, through these gaming techniques, respond to political pressure by claiming victory against violent crime, escaping the scrutiny necessary to effect positive change in the battle against sexual violence. All the while, police reclassification of rape complaints substantially undermines the deterrence of rape by diminishing the probability that rapists will be arrested, prosecuted, and convicted.

Based upon the findings of this Article, I conclude that federal, state, and local governments must radically reprioritize resources and personnel in police departments across the country to confront the ongoing hidden rape crisis. Police must treat rape as the horrific crime that it is and not merely a statistic to be toyed with to achieve political ends. Further, to avoid a repeat of the eighteen years studied, the FBI must play a more active role in reviewing reported statistics to ensure their accuracy. The minimal scrutiny that the FBI presently applies has created a culture of permissiveness where police departments are effectively encouraged to lie about the rate of rape in their jurisdictions. The claims of victory in decreasing rape in America have been premature and governments must immediately change their criminal justice priorities to confront the growing emergency of sexual violence in our society.

Part I of this Article analyzes UCR statistics for rape and explores how and why undercounting of rape has occurred. Part II uses a statistical outlier identification method to identify undercounting police jurisdictions. Part III corrects the official statistics to account for police misreporting of rape complaints. Part IV outlines the implications of the corrected UCR data for victims, rape law, and law enforcement. I conclude by outlining some potential reforms to address the problems identified herein. Although I use a variety of statistical tools and methods in this Article, consistent with the mission of making empirical legal studies more accessible and understandable to a larger audience,³⁰ I try to utilize graphical representations³¹ and avoid empirical research jargon whenever possible.

29. *Id.* at 160–61.

30. See Lee Epstein et al., *On the Effective Communication of the Results of Empirical Studies, Part I*, 59 VAND. L. REV. 1811, 1814 (2006) (“Most crucially, it seems nearly incontrovertible that moving towards more appropriate and accessible presentations of data will heighten the impact of empirical legal scholarship on its intended audience—be that audience other academics, students, policy makers, lawyers, or judges—not to mention raise the level of intellectual discourse among scholars themselves.”); Joshua B. Fischman & David S. Law, *What Is Judicial Ideology, and How Should We Measure It?*, 29 WASH. U. J.L. & POL’Y 133, 135–36 (2009) (“The fact that much of the audience is not methodologically sophisticated makes it all the more crucial that we do so. As a research community, we must cultivate and convey a better understanding of methods . . . if we are to succeed in convincing others of the validity of our work.”).

31. See Lee Epstein et al., *On the Effective Communication of the Results of Empirical Studies, Part II*, 60 VAND. L. REV. 801, 804–05 (2007) (“[R]esearchers should almost always graph their data and results. . . . Unless the author has a very compelling reason to provide precise numbers to readers, a well-designed graph is a superior choice to a table.”).

However, the technical details common to empirical legal studies are located in the footnotes throughout this Article.

I. POLICE UNDERCOUNTING OF RAPE COMPLAINTS

Federal, state, and local governments have claimed victory in the war on crime generally, and rape specifically, by pointing to rapidly decreasing crime rates since the early 1990s.³² This study addresses whether those conclusions of success are sound by examining the rape statistics during the time that official crime rates were falling at an unprecedented pace. In particular, I focus on how police departments' undercounting of incidents contributes to the widely reported decline in the rate of rape. To do so, I look at the primary source of crime data in the United States and statistical basis for believing that rape has been declining for the past two decades: the Uniform Crime Reports.

A. UNIFORM CRIME REPORTS

In 1927, the International Association of the Chiefs of Police ("IACP") gathered to discuss the state of crime in the United States.³³ The IACP subsequently created the UCR based upon the findings of that meeting and designated the FBI to administer the program.³⁴ Participating police departments submitted their first set of crime statistics to the FBI in 1930 for crimes committed in 1929.³⁵ Since that time, police departments across the country have supplied data so that national-level crime statistics could be compiled and studied. Although participation in the UCR program is voluntary, over 95% of police departments nationwide presently supply crime data to the FBI.³⁶ The participating departments cover approximately 97% of the population of the United States.³⁷

The UCR system is not without flaws. It relies exclusively on reports to police which means that, by the very nature of the system, unreported crimes are not included.³⁸ For the crime of rape, this is a particular concern because up to an estimated 84% of incidents have, in recent years, not been

32. See, e.g., AFTER THE WAR ON CRIME: RACE, DEMOCRACY, AND A NEW RECONSTRUCTION 1 (Mary Louise Frampton et al. eds., 2008) (noting that low crime rates have led to declarations of victory in order to move the focus to other issues confronting America).

33. See JAMES & COUNCIL, *supra* note 5, at 3; Cynthia Barnett-Ryan, *Introduction to the Uniform Crime Reporting Program*, in UNDERSTANDING CRIME STATISTICS, *supra* note 10, at 55, 55.

34. Barnett-Ryan, *supra* note 33.

35. See Marc Riedel, *The Use of Administrative Data to Answer Policy Questions: Secondary Data on Crime and the Problem with Homicide*, in THE SAGE HANDBOOK OF MEASUREMENT 561, 567 (Geoffrey Walford et al. eds., 2010).

36. See JAMES & COUNCIL, *supra* note 5.

37. See FRANK E. HAGAN, INTRODUCTION TO CRIMINOLOGY: THEORIES, METHODS, AND CRIMINAL BEHAVIOR 26 (7th ed. 2011).

38. JAMES & COUNCIL, *supra* note 5, at 18.

reported to police.³⁹ Further, the system relies on police officers to make UCR classifications with neither proper training nor guidance.⁴⁰ Also, because the program is voluntary, even participating police departments have not provided all of the information requested, leading to missing data problems.⁴¹

Because of these limitations, the FBI has made an effort to replace the UCR program with the National Incident-Based Reporting System (“NIBRS”), which was designed to address many of the shortcomings of the UCR system.⁴² Notably, NIBRS has provided greater depth of data about reported crimes and police handling of complaints.⁴³ However, NIBRS data were not usable in this study because the program only began reporting statistics in 1996 after the great decline in crime had begun and too few jurisdictions participated in the NIBRS program to provide the comparative nationwide analysis needed.⁴⁴

Despite the shortcomings of the system, the UCR remains the dominant source of information about crime levels and rates in the United States.⁴⁵ The media uncritically reports the statistics from the program without noting the limitations of the data.⁴⁶ Police departments wishing to show progress in fighting crime focus on decreasing their UCR statistics.⁴⁷ The UCR data often serves as the basis for crime and social policy in America.⁴⁸ Congress allocates funds to police departments based upon their successes

39. See DEAN KILPATRICK ET AL., UNDERSTANDING NATIONAL RAPE STATISTICS 2, 10 (2009), available at http://new.vawnet.org/Assoc_Files_VAWnet/AR_RapeStatistics.pdf.

40. See, e.g., JAMES & COUNCIL, *supra* note 5, at 17–19; Lonsway & Archambault, *supra* note 6.

41. JAMES & COUNCIL, *supra* note 5, at 19–20.

42. *Id.* at 11–13.

43. *Id.* at 13–14.

44. NIBRS collects far more data about reported crimes from departments, but still has a very low participation rate of only 25% of police jurisdictions with even less data from when the program began reporting data in 1996. *NIBRS General FAQs*, FBI (Apr. 2009), http://www.fbi.gov/about-us/cjis/ucr/frequently-asked-questions/nibrs_faqs08.pdf; see also JAMES & COUNCIL, *supra* note 5, at 2; Riedel, *supra* note 35, at 568–69.

45. There is one other major source of rape data that relies on census worker surveys: the National Crime Victimization Survey (“NCVS”). There are several reasons that I do not discuss the NCVS data in the main. First, the NCVS includes reported and unreported rapes making it difficult to compare the data with UCR reports. Second, the NCVS is focused on national crime rates and takes very limited samples in individual jurisdictions, making it virtually impossible to compare city data from the UCR. Third, the NCVS rape data has an ambiguous definition of rape which is likely much more expansive than the UCR data focused on forcible vaginal rape of women. Fourth, the NCVS has come under increased scrutiny for its rape data, which has produced seemingly bizarre information over the last decade. See generally NAT’L RESEARCH COUNCIL, ESTIMATING THE INCIDENCE OF RAPE AND SEXUAL ASSAULT (Candace Kruttschnitt et al. eds., forthcoming Feb. 2014) (examining the numerous shortcomings of NCVS rape data that has led to widespread undercounting of rape incidents).

46. See HAGAN, *supra* note 37; JAMES & COUNCIL, *supra* note 5, at 2.

47. Maltz, *supra* note 10.

48. *Senate Hearing on Rape in the United States*, *supra* note 18.

reported in the UCR statistics.⁴⁹ Policymakers also regularly use the UCR data to evaluate the efficacy of criminal justice programs.⁵⁰ As a result, the annual FBI reports become the definitive proxy for evaluating crime control.

This study focuses exclusively on UCR data because of the issues and questions being addressed. The goal is neither to determine the actual level of the rate of rape in America nor to evaluate the UCR's overall effectiveness in measuring crime. Instead, this study is concerned with whether police departments across the nation are incorrectly reporting the UCR data itself. The crime data submitted to the FBI is the only means to evaluate that issue because the UCR program is the only comprehensive source in the United States that relies on police reporting of crime.⁵¹

1. Rape Data

The core element of the data police departments supply to the FBI is the total reported incidents of select criminal offenses ("Index Crimes").⁵² Since the program's inception, the FBI has included the crime of rape as one of the eight Index Crimes for which police departments could submit data.⁵³ In addition to a count of reported crimes, the FBI annually issues the rate of crime nationally and for each jurisdiction using this basic formula:

$$\text{Crime Rate} = (\text{Reported Crimes}/\text{Population}) \times 100,000$$

Thus, the crime rate is defined as the number of reported criminal incidents for every 100,000 people.⁵⁴

For the study period, and since the UCR's inception, its narrow definition of "rape" required: "carnal knowledge of a female forcibly and against her will."⁵⁵ By employing the phrase "carnal knowledge," that

49. *Id.*

50. Maltz, *supra* note 10.

51. JAMES & COUNCIL, *supra* note 5, at 37–38 (contrasting the UCR with other available crime data which comes from sources other than police reporting).

52. See Barnett-Ryan, *supra* note 33, at 57.

53. The other listed Index Crimes that have been included since the program began are: felonious murder, robbery, aggravated assault, burglary, larceny/theft, and auto theft—arson was later added as the eighth Index Crime. FBI, U.S. DEP'T OF JUSTICE, UNIFORM CRIME REPORTING HANDBOOK 2 (rev. ed. 2004); see also HAGAN, *supra* note 37, at 27; JAMES & COUNCIL, *supra* note 5, at 3, 5.

54. HAGAN, *supra* note 37, at 31.

55. FBI, U.S. DEP'T OF JUSTICE, *supra* note 53, at 19. UCR statistics should include attempts of the listed crimes that are not completed. See JAMES & COUNCIL, *supra* note 5, at 9. In early 2012, the President ordered that the definition of rape for UCR data collection be changed for the first time since the program started in 1930. See Charlie Savage, *U.S. to Expand Its Definition of Rape in Statistics*, N.Y. TIMES (Jan. 6, 2012), <http://www.nytimes.com/2012/01/07/us/politics/federal-crime-statistics-to-expand-rape-definition.html>. The new definition includes non-forcible rape with even the slightest oral, anal, or vaginal penetration of a man or woman. *Id.* However, even optimistically, it will be several years before police departments across the nation change their reporting practices to include data afforded by the more expansive definition. *Id.*

definition only includes a man vaginally penetrating a woman with his penis, not oral or anal penetration.⁵⁶ The words “against her will” excluded cases where alcohol or drug intoxication prevented legal consent.⁵⁷ Most importantly, the UCR definition of rape, unlike the definitions used in the majority of jurisdictions across the United States, requires the use of force.⁵⁸ As a result of using this narrow conception of rape, as discussed later in this Article, this study’s finding of widespread police undercounting of rape complaints likely substantially understates the magnitude of the problem.⁵⁹

The UCR data indicates that the rate of rape (“Unadjusted Rape Rate”) has been steadily declining since the early 1990s.⁶⁰ In total, the Unadjusted Rape Rate declined by 27.5% (from 37.1 to 26.9 per 100,000 people) nationally from 1995 to 2012 (the study period) consistent with trends of other violent crime rates. Figure 1 illustrates the declining rates of reported rapes and murders on a national level during that time. Similar to the rate of rape, the rate of murder (“Unadjusted Murder Rates”) declined by 42.7% (from 8.2 to 4.7).

56. KILPATRICK ET AL., *supra* note 39, at 4. The oversight of same-sex rape is consistent with the general policy, scholarly, and public disinterest in the subject. *See generally* Bennett Capers, *Real Rape Too*, 99 CALIF. L. REV. 1259 (2011) (providing the first comprehensive legal scholarship on the topic of same-sex rape).

57. *See* KILPATRICK ET AL., *supra* note 39, at 4.

58. *See* Savage, *supra* note 55 (“Victim advocacy groups have long criticized the old definition as outdated, saying it left out many crimes that were prosecuted as rape under state laws but that were not reflected in national statistics.”).

59. *See infra* Part III.

60. The summary statistics in the annual UCR are available directly from the FBI. *See UCR Publications*, FBI, <http://www.fbi.gov/about-us/cjis/ucr/ucr-publications#Crime> (last visited Jan. 21, 2014). The raw data, released well after the annual UCR, is available from the National Archive of Criminal Justice Data (“NACJD”). *See Uniform Crime Reporting Program Resource Guide*, NAT’L ARCHIVE CRIM. JUST. DATA, <http://www.icpsr.umich.edu/icpsrweb/content/NACJD/guides/ucr.html> (last visited Jan. 21, 2014). The Bureau of Justice Statistics (“BJS”) has also created a data analysis tool that allows for quick analysis of certain variables in the UCR data. *See Uniform Crime Reporting Statistics*, UCRDATATOOL.GOV, <http://www.ucrdatatool.gov> (last modified Mar. 29, 2010). The data used in this Article can be derived from all three sources, as the data used in this study is consistent between each.

**Figure 1: Rape and Murder Rates
1995-2012**



2. Study Data

The FBI and Bureau of Justice Statistics make the UCRs publicly available on an annual basis. The data underlying those reports serve as the sole data used in this study. At the time of this study, the most recent year of complete data was 2012 and, consequently, 2012 was designated as the end of the study period. The start date is designed to coincide with the great decline in crime to determine whether portions of the historically unprecedented reduction in crime were manufactured by police manipulating rape statistics. The study uses 1995 as the starting year to avoid including outlier data from the early 1990s when the Unadjusted Rape Rate peaked and then registered the largest single year decrease in history.⁶¹

The study focuses on individual police jurisdictions and that unit of measure determined other limitations for the dataset.⁶² Analyzing smaller

61. From 1990 to 1995 the rates of rape on a national level were 41.1, 42.3, 42.8, 41.1, 39.3, and 37.1 respectively. *Crime—National or State Level Data with One Variable*, UCRDATATOOL.GOV, <http://www.ucrdatatool.gov/Search/Crime/State/TrendsInOneVar.cfm> (select “United States-Total” in “a,” “Forcible rape rate” in “b,” and from “1990” to “1995” in “c”; then follow “Get Table” hyperlink) (last visited Jan. 21, 2014). The danger in including the peak value and drop-off from that peak in the study period stemmed from the concept of “regression to the mean.” With peak values, natural fluctuation will tend to return toward the mean, which can be mistaken for a variable effect. See David P. Farrington & Brandon C. Welsh, *Randomized Experiments in Criminology: What Have We Learned in the Last Two Decades?*, 1 J. EXPERIMENTAL CRIMINOLOGY 9, 10 (2005). Rather than contend with separating a regression to the mean from genuine variable effect, I chose to start the study at 1995. However, after completing the study, I checked whether any of the conclusions herein would be altered by including 1994, 1993, and/or 1992 in the study. I found that none of the substantive conclusions or findings would be changed by including some or all of those years.

62. It is difficult to determine whether the same methodology was used by every jurisdiction during the entire study period. The police departments were instructed to report when some change could affect their crime data generally. However, jurisdictions rarely reported the exact reason for change, magnitude of change, nature of the change, or crime affected. During the study period, the following notations were included in the UCR data as made by jurisdictions about changes that might complicate the data of cities identified as likely

jurisdictions is difficult because of floor effects, small sample sizes, and high year-to-year variability. For example, murders (which were used as the baseline for part of the study as described in Part II.B) often do not occur for several years in small towns. A zero count acts as a floor for data (meaning no lower values were possible), which would create certain statistical artifacts and make results from the percentage change analysis used in this study of questionable validity. As a result, the study sample includes only jurisdictions that had a population of at least 100,000 at some time during the study period.

Based upon the UCR data, 454 jurisdictions meet the population cutoff, but many have incomplete data for rape incidents from 1995 to 2012. Analyzing cities with even a few years of missing data over an eighteen-year period would make any statistical inferences potentially invalid. That concern is particularly pronounced because most of the missing data is at the beginning of the study period (when UCR participation was lower). As those years exhibited large decreases in Unadjusted Rape Rates on a national level, missing data during that time is especially problematic.

To prevent invalid statistical inferences, a subset of the 454 jurisdictions is removed due to inadequate UCR data. If a police department had more than one missing year of data, it is eliminated from the sample. If a police department had a single missing year, data is filled with the average of the two surrounding years or, if at the beginning or end of the study, the year before or after. In all, 244 police departments are removed due to

to have manipulated rape statistics: Mobile, AL, 1995—reporting changes or annexations; Mobile, AL, 2010—reporting practices; Little Rock, AR, 2009—reporting practices; Bakersfield, CA, 2003—reporting practices, annexations, and/or incomplete data; Inglewood, CA, 2002—reporting practices, annexations, and/or incomplete data; Baton Rouge, LA, 1996—reporting changes or annexations; Baton Rouge, LA, 2002—reporting practices, annexations, and/or incomplete data; New Orleans, LA, 2000—reporting practices, annexations, and/or incomplete data; Baltimore, MD, 2000—reporting practices, annexations, and/or incomplete data; Detroit, MI, 2003—reporting practices, annexations, and/or incomplete data; Detroit, MI, 2004—reporting practices, annexations, and/or incomplete data; Detroit, MI, 2005—reporting practices; Flint, MI, 2001—reporting practices, annexations, and/or incomplete data; Flint, MI, 2002—reporting practices, annexations, and/or incomplete data; Flint, MI, 2003—reporting practices, annexations, and/or incomplete data; Flint, MI 2004—reporting practices, annexations, and/or incomplete data; Flint, MI, 2005—reporting practices; Kansas City, MO, 2006—reporting practices; Kansas City, MO, 2010—reporting practices; Durham, NC, 2006—reporting practices; Philadelphia, PA, 1999—reporting practices, annexations, and/or incomplete data; Memphis, TN, 2001—reporting practices, annexations, and/or incomplete data; Milwaukee, WI, 2005—reporting practices. *Crime—Large Local Agencies: Data with One Variable*, UCRDATATOOL.GOV, <http://www.ucrdatatool.gov/Search/Crime/Local/TrendsInOneVarLarge.cfm> (select “all” in “a”; then follow “next” hyperlink; then select all agencies in “a,” “Forcible rape rate” in “b,” and from “1995” to “2012” in “c”; then follow “Get Table” hyperlink) (last visited Jan. 21, 2014). After reviewing the data for each jurisdiction during the year indicated, there was nothing to indicate that the rape statistics were affected based upon the overall trends, but methodological changes as an unobserved variable could not be completely ruled out.

inadequate data and 210 remain in the sample. The 210 jurisdictions cover 42 states and the District of Columbia.⁶³

B. MEDIA INVESTIGATION OF POLICE UNDERCOUNTING

Four local newspaper reporters separately investigated the UCR rape statistics their local city police departments provided to the FBI after noticing large differences between the numbers in those jurisdictions and other cities. They found irregularities in the data and evidence of intentional police manipulation to suppress their reported crime statistics. Each of the cities had various practices for undercounting, but operated on the same basic principles. The media exposed city police departments for manufacturing rape statistics to create the illusion of success in the following cities (in order of discovery): Philadelphia, St. Louis, New Orleans, and Baltimore.

The Philadelphia Inquirer, in 1998, investigated and found improprieties by the city police department in reporting rape through the UCR program.⁶⁴ Among the various techniques police used to avoid counting rapes, one common method was to classify rape complaints as “investigate persons,” an internal department designation that was not reported to the FBI.⁶⁵ Normally, cases in the “investigate persons” category would require further police action, but police simply failed to investigate rape cases so designated.⁶⁶ The process by which police downgraded crimes such as rape to lesser offenses was endemic to the Philadelphia police culture and even given a name: “going down with crime.”⁶⁷ A review of 2500 rape complaints in Philadelphia made in the time leading up to the media exposé found that police handled 2300 of those incidents improperly.⁶⁸

63. No data is used from the following states: Delaware, Illinois, Maine, Montana, North Dakota, Vermont, West Virginia, and Wyoming. Illinois presents a special problem because of the way UCR data has been collected in the state. Illinois has required that all crime data be submitted to the Illinois Department of Public Safety, which has used different definitions and categorizations for crimes. See Management Advisory Memorandum from Raymond J. Beaudet, Assistant Inspector Gen. for Audit, U.S. Dep’t of Justice, to Laurie O. Robinson, Acting Assistant Attorney Gen., Office of Justice Programs 2–3 (Apr. 9, 2009), available at http://www.justice.gov/oig/recovery/docs/2009/2009_04_09.pdf. The state has then sent the data to the FBI. See *id.* For rape, this has been a particular problem because the state has never provided the data using the FBI’s definition. See *id.* Recently, seven police departments in Illinois (Aurora, Elgin, Joliet, Naperville, Peoria, Rockford, and Springfield) began submitting data directly to the FBI meeting the UCR definition for rape. See *id.* However, those jurisdictions only have a single year of data during the study period and are excluded for that reason.

64. Fazlollah et al., *supra* note 9; Matza, *supra* note 9.

65. Fazlollah et al., *supra* note 9.

66. *Id.*

67. *Id.* (internal quotation marks omitted).

68. Justin Fenton, *FBI Seeks to Update Definition of Rape*, BALTIMORE SUN (Sept. 29, 2011, 9:52 PM), <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-ci-fbi-rape-definition-20110929,0,7509980.story>.

In 2005, the *St. Louis Post-Dispatch* caught the city police department aggressively discouraging rape victims from proceeding with their cases.⁶⁹ One means police used to make rape complaints disappear was for police to have the complainants sign a “waiver” that implied that their allegations were “unfounded.”⁷⁰ The St. Louis police believed that the “waivers” released them from any obligation to investigate the complaint and report the rape as part of the UCR program.⁷¹ To that end, police officers tried to dissuade victims from pursuing criminal charges and questioned key portions of victims’ stories before presenting the waiver form.⁷² The St. Louis Police Department’s use of a “waiver” form was unprecedented and ultimately its undoing.⁷³ By following the police paper trail, newspaper investigators were able to identify complaints that the police should have pursued.⁷⁴ Even in those cases where the victim genuinely did not want the police to further investigate the case, the UCR guidelines were clear that the St. Louis police should have counted the complaints in reports to the FBI.⁷⁵ In other cases, the police would write short memos in place of formal written reports so that the department would not count the incident described in the memo.⁷⁶

The Times-Picayune unearthed evidence in 2009 that the New Orleans Police Department had manipulated its rape statistics to create the appearance of declining crime rates.⁷⁷ The city police department was particularly aggressive in downgrading rape complaints, even to noncriminal status using the “Signal 21” designation.⁷⁸ Police were expected to investigate “Signal 21” cases, but for rape complaints police never performed further inquiry.⁷⁹ New Orleans became so bold in using the classification that its rate of rape fell significantly below its rate of murder.⁸⁰ In 2008, the police labelled 60% of all rape complaints as “Signal 21” cases.⁸¹ Notably, unlike the other three cities caught submitting flawed rape statistics, the New Orleans Police Department refused to make available records of complaints for media examination and did not subsequently implement new crime reporting policies.⁸²

69. Kohler, *supra* note 9.

70. *Id.*

71. *Id.*

72. *Id.*

73. *See id.*

74. *See id.*

75. *Id.*

76. *Id.*

77. Maggi, *supra* note 9.

78. *Id.*

79. *Id.*

80. *Id.*

81. *Id.*

82. *Id.*

In 2009, *The Baltimore Sun* uncovered the undercounting of rape in the UCR data the Baltimore Police Department submitted.⁸³ The newspaper discovered that the police were designating a very high rate of rape complaints as “unfounded.”⁸⁴ Police also discouraged rape victims from filing complaints so that written reports would not be required.⁸⁵ In either case, police provided no information to the FBI about the reported incidents.⁸⁶ In 2010, in 40% of rape cases, police neither investigated after taking the initial complaint nor created a written record of the complaints.⁸⁷ Notably, there have continued to be reports that police have been shaming victims and have remained hostile to complaints of rape even after subsequent policy changes within the police department.⁸⁸

C. WHY POLICE UNDERCOUNT

The media investigations identified the basics of how rape undercounting has occurred, but left open the question as to why police departments engage in such practices. The varied, overdetermined reasons for police subterfuge in rape statistics fall into two broad categories. First, police are driven by political pressure from a variety of sources that could ultimately determine their pay, career prospects, and public support. In such cases, police intentionally respond to those political forces by manufacturing rape statistics. Second, police often exhibit cultural patterns of accepting myths about rape that intersect with norms of the law enforcement world causing them to doubt the veracity of rape complaints. These cultural forces typically operate on a subconscious level to interact with conscious decisions to downgrade or ignore rape complaints.

1. Political Forces

Political pressure is a significant force applied to the decision-making processes in police departments manipulating crime statistics.⁸⁹ Widespread public fear of crime is the primary source of the pressure on police to show continual reductions in crime.⁹⁰ The most telling indicator of the public’s expectations of police comes from public polling. From 1996 to

83. See Erica Goode, *Rape Definition Too Narrow in Federal Statistics, Critics Say*, N.Y. TIMES (Sept. 28, 2011), <http://www.nytimes.com/2011/09/29/us/federal-rules-on-rape-statistics-criticized.html> (describing *The Baltimore Sun*’s role in uncovering undercounting of rape in Baltimore).

84. Fenton, *supra* note 68.

85. See Justin Fenton, *City Rape Statistics, Investigations Draw Concern*, BALT. SUN (June 27, 2010, 10:27 AM), <http://www.baltimoresun.com/news/bs-md-ci-rapes20100519,0,5338041.story>.

86. Fenton, *supra* note 4.

87. Fenton, *supra* note 85.

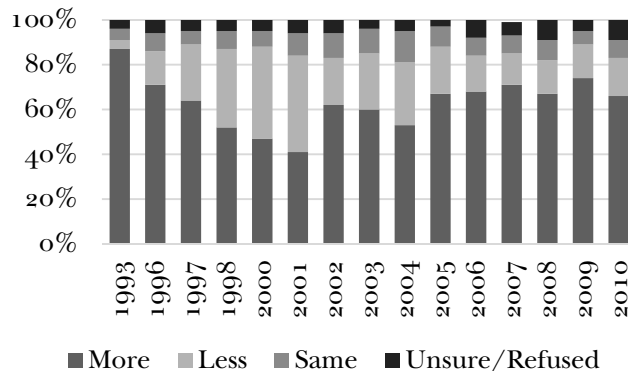
88. See *id.*

89. See JAMES & COUNCIL, *supra* note 5, at 18.

90. See generally JONATHAN SIMON, *GOVERNING THROUGH CRIME: HOW THE WAR ON CRIME TRANSFORMED AMERICAN DEMOCRACY AND CREATED A CULTURE OF FEAR* (2007).

2010, Gallup conducted fourteen polls to assess whether the public believed crime had increased or decreased from the previous year.⁹¹ During that same period, crime rates were consistently falling.⁹² Yet, as illustrated in Figure 2,⁹³ in thirteen of the fourteen surveys, more of the American public believed that crime had increased rather than decreased. On average, 62% believed crime had increased, 24% believed it had decreased, and 9% believed it to be the same.⁹⁴

Figure 2: Public Assessment of Crime Rate in Relation to Previous Year



Police face unrealistic expectations because of the mismatch between public belief and the reality of reported crime rates. Historically unprecedented drops in crime occurred from the early 1990s until the present day and yet the public has generally believed the police were failing in their jobs. That puts significant pressure on city mayors, police commissioners, and, as a result, every police officer involved in investigating crimes of the type ultimately reported to the public through crime statistics.⁹⁵

City and state governments exacerbate the pressure on individual police officers and police departments by using crime statistics to evaluate performance. Officer pay, departmental budgets, and promotions are regularly tied to success in decreasing rates of UCR Index Crimes in cities

91. See *Crime: Gallup Historical Trends*, GALLUP, <http://www.gallup.com/poll/1603/crime.aspx> (last visited Jan. 21, 2014). The question posed was: "Is there more crime in the U.S. than there was a year ago, or less?" *Id.*

92. See *Crime in the United States 2012: Table 1*, FBI, <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s./2012/crime-in-the-u.s.-2012/tables/1tabledatadecoveriewpdf> (last visited Jan. 21, 2014).

93. *Crime: Gallup Historical Trends*, *supra* note 91. The 2007 results in Figure 2 do not add up to 100% because of rounding by Gallup. See *id.*

94. The remainder was either unsure or refused to answer the poll question. See *id.*

95. See generally SIMON, *supra* note 90.

across America.⁹⁶ The financial and professional incentives align to encourage police to misclassify crimes in written reports and data submissions to the FBI.⁹⁷

There have been numerous reports of politics driving police departments to undercount rape. For example, the Atlanta Police Department was alleged to have intentionally undercounted crimes when they were jockeying to host the 1996 Summer Olympics.⁹⁸ A federal and state audit of the Atlanta Police Department revealed that many rape complaints that police should have further investigated were classified as “unfounded” in order to suppress reported crime rates.⁹⁹ A survey of 100 retired New York Police Department (“NYPD”) Captains and Commissioners found that they responded to intense political pressure by ordering officers to intentionally alter their crime statistics to show progress in decreasing crime.¹⁰⁰ The previously discussed examples of Philadelphia, St. Louis, New Orleans, and Baltimore all illustrate how politics have driven police to intentionally misrepresent the rate of rape in those jurisdictions.¹⁰¹

Perhaps the most widely-reported instance of police undercounting of rape (and other crimes) involved the 81st Precinct in Brooklyn.¹⁰² In 2008 and 2009, NYPD Officer Adrian Schoolcraft began recording his interactions with his commanding officers because of the widespread practice of statistical manipulation.¹⁰³ Among the numerous improprieties documented in Officer Schoolcraft’s recordings were command officers personally calling victims to intimidate them into withdrawing complaints, orders to downgrade offenses to make the precinct’s key statistics look better, and linking of compensation to individual officer crime statistics.¹⁰⁴ In a shocking turn, upon discovering Officer Schoolcraft’s documentation of the corrupt practices, Deputy Chief Michael Marino led a group of police to Schoolcraft’s home and had him involuntarily committed to a psychiatric care facility for six days (despite no indication of serious mental illness).¹⁰⁵

96. GEORGE F. COLE & CHRISTOPHER E. SMITH, *CRIMINAL JUSTICE IN AMERICA* 41 (5th ed. 2008).

97. *Id.*

98. See SIEGEL, *supra* note 6, at 34.

99. Martz, *supra* note 23 (“In 1996, 56 reports of women being raped were written off by Atlanta police as never having happened. Those reports . . . were removed from annual totals reported to the FBI and widely used to characterize decreases in Atlanta’s crime statistics that year.”).

100. SIEGEL, *supra* note 6, at 34.

101. See *supra* Part I.B.

102. Graham Rayman, *The NYPD Tapes: Inside Bed-Stuy’s 81st Precinct*, VILLAGE VOICE (May 4, 2010), <http://www.villagevoice.com/2010-05-04/news/the-nypd-tapes-inside-bed-stuy-s-81st-precinct/full>.

103. *Id.*

104. *Id.*

105. Jim Dwyer, *An Officer Had Backup: Secret Tapes*, N.Y. TIMES (Mar. 13, 2012), <http://www.nytimes.com/2012/03/14/nyregion/whistle-blower-police-officer-had-backup-secret>

In response to the *Village Voice's* coverage of the Schoolcraft story, an anonymous NYPD officer stated that “The NYPD has become in many ways a pyramid scam. Commanding officers will downgrade every crime they can in order to get politically promoted.”¹⁰⁶ The investigation of the 81st Precinct found that rape complaints were regularly downgraded to minor crimes allowing serial rapists to continue to find more victims.¹⁰⁷

recordings.html (“[A] group of police officer arrived outside Officer Schoolcraft’s apartment in Queens. He did not answer the door, and they entered three hours later, using the landlord’s key. . . . Although police supervisors would later tell the psychiatric staff at the hospital that Officer Schoolcraft had barricaded himself in his home and run from them, the recording does not support that version.”).

106. Graham Rayman, *NYPD’s Reporting Problem*, VILLAGE VOICE (Mar. 14, 2012), <http://www.villagevoice.com/2012-03-14/news/nypd-blowback> (internal quotation marks omitted).

107. See *Right to Remain Silent: Transcript*, THIS AM. LIFE (Sept. 10, 2010), <http://www.thisamericanlife.org/radio-archives/episode/414/transcript>. The story of how one serial rapist was free to find more victims because of crime stats manipulation is chilling:

[A] very distinguished detective . . . was working in the 33rd precinct in Washington Heights. And one morning he comes into work and there’s a guy who’s accused of first degree rape sitting in his interview room. So he sits down and he looks at the guy. And he has a little twinge, and he says, have you ever done this before? And the guy said, yeah. And Hernandez says, how many times? And he says, oh, I don’t know, seven or eight. And Hernandez says, where? And he goes, in this neighborhood. And Hernandez is now dumbstruck because there’s been no report of a serial rapist—sexual predator—working the neighborhood.

. . . .

He hasn’t been notified. And he would be notified as a senior detective in the unit. It would be a very big deal. And so he says, can you give me the dates and locations? And the guy says, well, I can try, but you’re going to have to take me around and I’ll show. I’ll show you. So he and a fellow detective get in the car and they drive around. And they look, and the suspect—whose name is Darryl Thomas—points out the locations. And then Hernandez takes his notebook and he writes down the locations. And then he goes back and he looks through stacks of crime complaints. And he finds them. And he realizes that they’ve been classified—they’ve been downgraded. They’ve been classified either as criminal trespassing or criminal possession of a weapon—both relatively minor crimes, given that the actual conduct in the narrative that the victims are describing is either first degree burglary, robbery, or sexual abuse, sexual assault. And he confronts his bosses about it. He confronts the precinct commander. And he confronts his detective squad commander. And everyone just shrugs. Meanwhile everyone’s terrified that it’s going to come out—that these women are going to go to the press, and it’s going to be a huge embarrassment, a huge scandal for the department. And if it had come out, it would have been a huge scandal for the department. But the department was able to keep it quiet. The District Attorney’s office prosecuted Thomas and he went away for 50 years. But here’s the interesting part—they never publicized the case. There was never a press release issued about it. There was never a news article written about the case.

[The commanding officer at the precinct has] been promoted twice. It just went on, business as usual.

Id. (statement of Graham Rayman).

In 2003, Human Rights Watch released a report documenting the Washington, D.C. Metropolitan Police's systemic failure to properly investigate rape complaints.¹⁰⁸ The report found practices similar to those in Baltimore, New Orleans, Philadelphia, and St. Louis wherein police regularly prematurely "unfounded" complaints, failed to document incidents, and improperly downgraded offenses.¹⁰⁹ As noted later in this Article, the findings of Human Rights Watch are consistent with the result in this study identifying the Metropolitan Police as one of the worst undercounters.¹¹⁰

2. Cultural Forces

Whereas political forces generally cause police to manipulate statistics intentionally, cultural norms and beliefs have a more subtle effect on police behavior. Police operate within a larger cultural framework that is hostile to the stories of rape victims. These attitudes infect police work such that police often disbelieve rape victims and, as a result, do not include complaints within official police records used to compute crime statistics. The result of cultural opposition to rape stories is to enable and embolden intentional undercounting of rape.

The general cultural dynamics that undermine the acceptance of rape complaints as true are well documented. Professor Stephen Schulhofer effectively explains the pernicious effect of cultural norms in shaping understanding of rape: "Social attitudes are tenacious, and they can easily nullify the theories and doctrines found in the law books. The story of failed [rape law] reforms is in part a story about the overriding importance of culture, about the seeming irrelevance of law."¹¹¹ Similarly, Professor Andrew Taslitz, a long-time prosecutor of rape cases, extensively catalogues and analyzes the numerous ways that rape stories are invalidated in the

108. HUMAN RIGHTS WATCH, CAPITOL OFFENSE: POLICE MISHANDLING OF SEXUAL ASSAULT CASES IN THE DISTRICT OF COLUMBIA (2013) [hereinafter *CAPITOL OFFENSE*], available at http://www.hrw.org/sites/default/files/reports/us0113ForUpload_2.pdf. The law firm Crowell Moring was hired to respond to the Human Rights Watch report and contended that the findings were fundamentally flawed. CROWELL MORING, ANALYSIS OF HUMAN RIGHTS WATCH REPORT: CAPITOL OFFENSE: POLICE MISHANDLING OF SEXUAL ASSAULT CASES IN THE DISTRICT OF COLUMBIA (2013), available at http://mpdc.dc.gov/sites/default/files/dc/sites/mpdc/page_content/attachments/Crowell-Moring_Report%20-%20MPD%20and%20HRW.pdf. Human rights Watch issued a rebuttal of the Crowell Moring response arguing that the response did not engage the key findings of the original report. HUMAN RIGHTS WATCH, GAPS AND FLAWS IN THE CROWELL ANALYSIS (2013), available at http://www.hrw.org/sites/default/files/reports/2013_US_CrowellResponse_0.pdf.

109. *CAPITOL OFFENSE*, *supra* note 108, at 71–107 (documenting numerous improper handlings of rape complaints based upon interviews with rape victims and other informed parties).

110. See *infra* Appendix A.

111. See STEPHEN J. SCHULHOFER, UNWANTED SEX: THE CULTURE OF INTIMIDATION AND THE FAILURE OF LAW 17 (1998).

criminal justice system.¹¹² These cultural structures are particularly powerful in non-stranger rape cases when listeners are prone to question the actions of victims and believe narratives of consent offered by alleged rapists.¹¹³

Police operate within those larger cultural superstructures, but also internalize added elements unique to law enforcement. The story of the Baltimore police undercounting rape is particularly noteworthy concerning the effect of deeply embedded beliefs among many police in that department. Baltimore Police Commissioner Frederick H. Bealefeld III, in trying to implement policies to correct the crime reporting process, attributed the sheer magnitude of undercounting rape to individual officers' hostility to rape victims.¹¹⁴ Commissioner Bealefeld identified the cultural roots of police distrust of rape accusations and stated that the Baltimore Police Department "didn't just suddenly veer off the road and strike a tree—this was a very long process that led to this problem."¹¹⁵

The limited scholarly research on the subject indicates that the Baltimore police treatment of rape victims is typical. One study found that police who take rape complaints believe one third of complainants were making false reports.¹¹⁶ A study by Professors Cassia Spohn and Katharine Tellis of the Los Angeles Police Department and Los Angeles County Sheriff's Department is particularly notable.¹¹⁷ Even though the corroboration requirement for rape cases was removed from statutes long ago, the Los Angeles Police Department still required it to determine if charges would be filed.¹¹⁸ In an interview, one detective stated that "[y]ou don't want to arrest someone and put a rape charge on them for the rest of their life."¹¹⁹ Prosecutors often pressured police not to pursue cases that were not guaranteed trial victories because conviction percentages are the primary statistic by which they are evaluated.¹²⁰ This combination of

112. See, e.g., ANDREW E. TASLITZ, *RAPE AND THE CULTURE OF THE COURTROOM* (1999).

113. *Id.* at 7–8.

114. See Goode, *supra* note 83.

115. *Id.* (internal quotation marks omitted).

116. Jan Jordan, *Beyond Belief?: Police, Rape and Women's Credibility*, 4 CRIM. JUST. 29, 34–35 (2004). Notably, this study was of New Zealand police officers. Unfortunately, a similar comprehensive study of police attitudes in America does not exist.

117. See Cassia Spohn & Katharine Tellis, *Justice Denied?: The Exceptional Clearance of Rape Cases in Los Angeles*, 74 ALB. L. REV. 1379 (2010–2011).

118. *Id.* at 1391–92.

119. *Id.* at 1390. Notably, the interviewee also expressed concern that he didn't "want someone to get away with it either." *Id.*

120. See *id.* at 1393 ("The district attorney influences case clearances through the pre-arrest screening process, in which cases are reviewed for evidentiary sufficiency before an arrest is made."); see also Justin Fenton, *Even with DNA, Cases Don't Bring Convictions*, BALT. SUN (Dec. 28, 2010), http://articles.baltimoresun.com/2010-12-28/news/bs-md-ci-dna-outcomes-20101228_1_dna-evidence-sexual-assault-sexual-attacks ("Baltimore's handling of rape cases came under fire this year, when a Sun investigation showed that the Police Department led the nation in the number of allegations that detectives had ruled 'unfounded.' . . . The problem, police said privately, was partly an outgrowth of prosecutors' reluctance to try tough cases.").

prosecutor influence and an unwritten corroboration requirement encouraged and pressured Los Angeles police to dismiss rape complaints at an early stage because the cases were thought to be unwinnable.¹²¹

A recent study of police culture by Professor James F. Gilsinan explored how cultural beliefs are manifested in classifying crime based upon specific organizational frames.¹²² He found that “police agencies do not respond directly to a situation, but instead respond to an organizationally projected frame that takes ambiguous information and forms it into an understandable pattern to which the agency can then respond in a routine fashion.”¹²³ The implication of Gilsinan’s study is that, in classifying alleged rapes, police ultimately use their cultural beliefs to process, frame, and comprehend a complainant’s story.¹²⁴ Because of the strong biases against alleged rape narratives, police often seek to classify such incidents as lesser crimes or non-criminal events.¹²⁵ These cultural attitudes about rape drive even well-meaning officers to doubt a rape victim’s story. And ultimately, that doubt is manifested in fewer rapes being counted in the UCR data provided to the FBI.

D. HOW POLICE UNDERCOUNT

Police in Baltimore, New Orleans, Philadelphia, and St. Louis offer a model of how police undercount rapes, but the nuances in the UCR system that those police exploit require further exploration. Although the data submitted to the FBI is normally compiled by a designated person or unit in a police department, that person or unit depends on the classifications used by the officers and investigators taking the complaints.¹²⁶ Few of these officers receive training in the proper UCR classifications.¹²⁷ Further, police have virtually unlimited power to shape the “framework of facts” in writing their reports, which provide the basis for the UCR classification.¹²⁸

121. Spohn & Tellis, *supra* note 117, at 1389 (“Pre-arrest screening occurred much more frequently in [sex] crimes because ‘sex crimes—especially those involving acquaintances—are very hard to prove.’” (quoting interview with detective)); *see also* Fenton, *supra* note 120.

122. *See* James F. Gilsinan, *The Numbers Dilemma: The Chimera of Modern Police Accountability Systems*, 32 ST. LOUIS U. PUB. L. REV. 93, 101–03 (2012).

123. *Id.* at 102.

124. *See id.* at 101–02.

125. *See id.* at 102–03.

126. *See* Lonsway & Archambault, *supra* note 6.

127. *Id.*

128. *See* Stanley Z. Fisher, “Just the Facts, Ma’am”: *Lying and the Omission of Exculpatory Evidence in Police Reports*, 28 NEW ENG. L. REV. 1, 4 (1993) (“Through their reports, the police ‘have fundamental control over the construction of [the] ‘facts’ for a case, and all other actors (the prosecutor, the judge, the defense lawyer) must work from the framework of facts as constructed by the police.” (alteration in original) (quoting Richard V. Ericson, *Rules for Police Deviance*, in ORGANIZATIONAL POLICE DEVIANCE: ITS STRUCTURE AND CONTROL 96 (Clifford D. Shearing ed., 1981))).

Against the backdrop of untrained police officers making classification decisions, there is essentially no secondary review of these categorizations.¹²⁹ Once the crime data leaves an individual police department, the FBI exercises almost no oversight of reports and there are few internal checks to the process.¹³⁰ Notably, when police departments do not officially count a rape complaint as a “rape” for UCR purposes, the complainant almost never knows and, as a result, is not able to inform the appropriate persons.¹³¹ These shortcomings in the UCR process have led many to believe that the police practices in Baltimore, New Orleans, Philadelphia, and St. Louis are widespread in other cities as well. As Carol Tracy of the Women’s Law Center testified before the Senate Judiciary Committee: “we are seeing chronic and systemic patterns of police refusing to accept [rape] cases for investigation, misclassifying cases to non-criminal categories so that investigations do not occur, and ‘unfounding’ complaints by determining that women are lying about being sexually assaulted.”¹³²

1. “Unfounded” Designation

The use of the “unfounded” complaint exception¹³³ is the most visible mechanism for police to hide rape complaints from the FBI. The UCR allows that “[w]hen, through investigation, an agency determines that complaints of crimes are unfounded or false, the agency eliminates that offense from its crime tally through an entry on the monthly report.”¹³⁴ According to the comprehensive model policy the IACP issued, the “unfounded” designation should only be used “after a thorough investigation.”¹³⁵ Although the “unfounded” complaint exception to UCR reporting was designed to ensure accurate accounting of actual crimes, in recent years police have more often used it as a loophole to make rape cases disappear from the official record.¹³⁶ Police are able to simply designate a complaint as “false” or “unfounded” without a thorough investigation and there is no safeguard against that decision.¹³⁷

Although no comprehensive study has been done on the question, substantial anecdotal evidence suggests that law enforcement regularly truncate rape investigations too early to properly use the “unfounded”

129. Lonsway & Archambault, *supra* note 6.

130. Maltz, *supra* note 10.

131. Lonsway & Archambault, *supra* note 6, at 152.

132. *Senate Hearing on Rape in the United States*, *supra* note 18, at 13 (Statement of Carol E. Tracy).

133. As a matter of precision, an “unfounded” designation includes claims that are either false or baseless. I do not use this distinction in this Article because the UCR does not ask police to distinguish between these two subtypes of unfounded complaints. See Lonsway, *supra* note 26, at 1357.

134. UCR METHODOLOGY, *supra* note 11, at 2.

135. See INT’L ASS’N OF CHIEFS OF POLICE, INVESTIGATING SEXUAL ASSAULTS 12–13 (2005).

136. See Lonsway & Archambault, *supra* note 6, at 152–53; Goode, *supra* note 83.

137. See Lonsway & Archambault, *supra* note 6, at 152–53.

categorization.¹³⁸ Several small studies indicate that police classify numerous ordinary rape complaints (often involving intoxicated or confused victims) as “unfounded.”¹³⁹ Professor Jeffrey Bouffard’s 2000 study of one unnamed police department found that 27.9% of cases were classified as “unfounded.”¹⁴⁰ The newspaper accounts of police practices in Baltimore, New Orleans, and St. Louis illustrate how the “unfounded” designation served as a convenient technique to make many rape complaints disappear from crime statistics.¹⁴¹ Indeed, police in Baltimore turned the UCR exception into a verb by openly stating that they had “unfound” a rape complaint.¹⁴² Because of its blatant use in some cities, Professor Michelle Madden Dempsey, who is very familiar with the process, concluded that the

138. There are good reasons to be highly suspicious of the data provided by police departments regarding the number of rapes that are “unfounded.” See Fenton, *supra* note 85. The tallies of “unfounded” criminal complaints are not included in the annual summary reports but are instead released over a year later with other raw data. See NAT’L ARCHIVE CRIM. JUST. DATA, <http://www.icpsr.umich.edu/icpsrweb/content/NACJD/guides/ucr.html> (last visited Jan. 21, 2014). The UCR previously included counts of “unfounded” rape complaints in its summary statistics. However, such reports have not regularly been included in those summaries since 1997. Compare FBI, U.S. DEP’T OF JUSTICE, CRIME IN THE UNITED STATES: 1997, at 26 (1998) (describing “unfounded” rape complaints), with FBI, U.S. DEP’T OF JUSTICE, CRIME IN THE UNITED STATES: 1998, at 24 (1999) (lacking mention of “unfounded” rape complaints). Because of the time delay and difficulty in properly utilizing the data, little to no attention is paid to the number of complaints that individual police departments designate as “unfounded.” Notably, participation in the UCR program does not require that a police department provide all of the data requested. See Barnett-Ryan, *supra* note 33, at 69. Thus, there is no incentive to provide potentially damaging data that might expose efforts to hide rape complaints.

A careful look at the “unfounded” data for rape complaints seemingly indicates that the reported numbers have no connection to reality. Most jurisdictions that provide UCR data report zero “unfounded” complaints in a given year. For example, the 2010 data indicates that Cleveland, Denver, Detroit, Indianapolis, Jacksonville, Los Angeles, Memphis, Miami, Milwaukee, Nashville, New York, and San Jose had just one “unfounded” rape complaint among them. In contrast, Dallas had two-hundred “unfounded” complaints which was over twice the total of any other city providing data. In the last two years that St. Louis aggressively “unfounded” rape complaints before being caught, only fifteen “unfounded” complaints were reported in the UCR data (significantly less than the small town of Travis, Texas reported in the same time frame). Cities report zero “unfounded” complaints in one year followed by dozens the following year. For the overwhelming majority of cities that have more than zero “unfounded” complaints, the data provided resembles the output from a random number generator.

139. See David Lisak et al., *False Allegations of Sexual Assault: An Analysis of Ten Years of Reported Cases*, 16 VIOLENCE AGAINST WOMEN 1318, 1320–21 (2010) (discussing research indicating that police commonly use “unfounded” designations in cases that do not meet the UCR definition of “unfounded”).

140. Jeffrey A. Bouffard, *Predicting Type of Sexual Assault Case Closure from Victim, Suspect, and Case Characteristics*, 28 J. CRIM. JUST. 527, 532 (2000).

141. See Fenton, *supra* note 4; Kohler, *supra* note 9; Maggi, *supra* note 9.

142. See Goode, *supra* note 83.

“unfounded” complaint exception openly encourages police to use it to fabricate crime statistics.¹⁴³

2. Lesser-Crime Classification

A second common technique for police to undercount rapes in a jurisdiction is to designate rape complaints as lesser offenses. The FBI asks every police department providing UCR data to individually classify each complaint into a UCR category.¹⁴⁴ State criminal codes rarely match the UCR definitions of crimes and individual police departments are given discretion when deciding how a complaint fits into the UCR categorization system.¹⁴⁵

Police have significant flexibility using the UCR classification system because the definitions for certain terms in the UCR Index Crimes are loose.¹⁴⁶ The force requirement of rape allows police to make subjective evaluations of complaints to reclassify an offense to a lesser category—one not reported to the FBI—unless there is abundantly clear evidence of physical assault accompanying the rape.¹⁴⁷ The UCR Handbook does not help, and potentially makes the misclassification problem worse, by only giving examples of stranger rape and gang rape as fitting the UCR definition.¹⁴⁸ Even well-intentioned officers struggle with the proper

143. See *Senate Hearing on Rape in the United States*, *supra* note 18, at 32–33 (statement of Michelle Madden Dempsey, Assoc. Professor of Law, Villanova Univ. Sch. of Law). An observer who believes that false reporting of rape is higher than other crimes might think that the police have been more recently properly classifying rape complaints as “unfounded.” This contention would be at odds with this study’s conclusion that the increase in using the “unfounded” designation is due to police trying to create the false impression of declining rates of rape. There are numerous flaws with studies that have shown an unusually high false reporting rate in rape cases. See, e.g., Lonsway, *supra* note 26, at 1358–66 (reviewing the literature on false reporting rates in rape cases and noting the numerous methodological flaws in studies finding unusually high rates of false reporting). For purposes of this Article, however, there is no need to enter the battle over false reporting rates of rape. The general contention that false reporting is especially high in rape cases is irrelevant to this study because: (1) jurisdictions have been caught manipulating the data and not merely recognizing more false complaints; (2) only some jurisdictions that fit a discrete profile discussed herein have unusually low reported rape complaints, whereas the false reporting story would assume rates of “unfounded” designation to be more consistent across jurisdictions; and (3) there is no explanation for, or study supporting why, false reporting would have increased in the last sixteen years to account for the higher rate of “unfounded” designations in some jurisdictions.

144. JAMES & COUNCIL, *supra* note 5, at 8–9.

145. See SIEGEL, *supra* note 6, at 33.

146. See *id.*

147. Lonsway & Archambault, *supra* note 6, at 152–53.

148. *Senate Hearing on Rape in the United States*, *supra* note 18, at 33 (statement of Michelle Madden Dempsey) (“I think that the problem with unfounding cases is not only a problem of police misconduct, but is also a problem of the structure of the UCR program in the way that it encourages officers to unfound cases in order to clear them.”).

classification of sexual assault complaints and often downgrade offenses based upon unconscious biases.¹⁴⁹

Police use a variety of classifications to avoid counting rape complaints in UCR Index Crimes. Many times, police list rape complaints as simple assaults.¹⁵⁰ There are also numerous lesser sex offenses that vary from jurisdiction to jurisdiction that often provided “dumping ground[s]” for rape cases that police want to disappear from publicly visible data.¹⁵¹

3. Police Gatekeeping

The initial complaint a rape victim makes to police serves as the first opportunity for an incident to be left out of official counts of rape reports. The easiest way for an officer taking a rape complaint to eliminate it from official tallies is to not create a written report. When a written report is not filed, it is likely no one other than the police officer speaking with the victim will ever know that a complaint was even made.¹⁵² This is the hardest technique to detect because police effectively eliminate any paper trail associated with the rape complaint. As a result, even thorough investigative reporting cannot be sure how widespread such practices are in a given police department.

Nonetheless, there is substantial anecdotal evidence about the police not writing up rape complaints. As discussed in Part I.B, in St. Louis, the police would write short memos instead of the formal written reports used to determine the number of rape incidents.¹⁵³ In the previously mentioned survey of retired NYPD Captains and Commissioners, some admitted to ordering police officers to crime scenes to dissuade victims from pursuing charges in violent crime cases to keep crime numbers down.¹⁵⁴ In such cases, police would not prepare any written record of the complaint.¹⁵⁵ In Baltimore, the new commissioner made a priority of changing the culture of the police department in taking rape complaints because he felt that police had been acting as gatekeepers and dissuading victims from filing complaints.¹⁵⁶ Further, sexual assault victim support organizations described the police in Baltimore as regularly using harsh interrogations to intimidate victims as a means to suppress the number of rape complaints.¹⁵⁷ Indeed, many of the examples of cultural forces in Part I.C.2 are documented

149. See Lonsway & Archambault, *supra* note 6, at 152.

150. See SAMUEL WALKER & CHARLES M. KATZ, *THE POLICE IN AMERICA: AN INTRODUCTION* 279 (6th ed. 2008).

151. Lonsway & Archambault, *supra* note 6, at 160.

152. See *id.* at 152.

153. Kohler, *supra* note 9.

154. SIEGEL, *supra* note 6, at 34.

155. *Id.*

156. See Fenton, *supra* note 24.

157. Fenton, *supra* note 85.

instances of police failing to create written reports of complaints based upon acceptance of myths about rape victims.

II. IDENTIFYING UNDERCOUNTING POLICE DEPARTMENTS

Validly identifying undercounting jurisdictions requires an objective test to separate the suspected undercounters from the other police departments. That determination necessitates a baseline to isolate which changes in crime rates were due to external factors (e.g., local economic growth, increased gang activity, etc.) and which were likely the result of the gaming of numbers. Fortunately, techniques for identifying statistical outliers can be effectively adapted to the task of classifying likely fraudulent data.

A. ESTABLISHING A BASELINE

Two separate trends have to be isolated and removed from the data from police departments to effectively identify jurisdictions that likely undercounted rape complaints. First, rape statistics have to be compared with some other variable that would not be prone to police manipulation. Otherwise, one might conclude that a very safe city is gaming its numbers because of an unusually low rate of rape when, in reality, there is simply less crime in that city. To that end, murder rates are used for each jurisdiction as a baseline because such rates are not easily manipulated and are highly correlated with rape rates. Second, individual city crime rates need to be separated from national trends. During the study period, violent crime rates were falling across the nation due to an array of factors (which were certain to be unobserved variables).¹⁵⁸ Using each city's variation from yearly national crime rates was the means used to resolve that difficulty.

1. Murder Rate Baseline

Unadjusted Murder Rates, instead of rates of other violent crimes reported to the FBI, are preferable as a baseline comparison in this study because they are the UCR crime statistic with the highest level of accuracy¹⁵⁹ and highly correlated with the Unadjusted Rape Rates.¹⁶⁰ Murder is the only

158. *Crime in the United States 2012: Table 1, supra* note 92.

159. See FRANKLIN E. ZIMRING, *THE GREAT AMERICAN CRIME DECLINE* 4 (2007).

160. $p < .0001$ with a robust linear regression. The p -value indicates the probability that findings are the product of mere chance. A value of less than .05 is typically considered statistically significant in the social sciences. See, e.g., Edward K. Cheng & Albert H. Yoon, *Does Frye or Daubert Matter? A Study of Scientific Admissibility Standards*, 91 VA. L. REV. 471, 497-98 n.58 (2005). Although UCR statistics are available for other Index Crimes, murder proved the most strongly correlated with rape. There was also concern that other crimes would be more prone to influence by unobserved variables. For example, motor vehicle theft, one of the UCR Index Crimes, underwent a significant decline in the last decade, which is believed to be partially due to better anti-theft technologies, which have no effect on rape rates. See Laurie Merrill & Matt Dempsey, *Scottsdale Property-Crime Rise One of County's Lowest*, AZCENTRAL.COM (Nov. 27, 2012, 2:09 PM), <http://www.azcentral.com/community/scottsdale/articles/>

crime the UCR tracks that is measured by other publically-available sources, which provides a check on misreporting incidents.¹⁶¹ Since 1933, the United States Federal Government has tracked deaths by murder as a way of compiling health statistics.¹⁶² As a result, police cannot undercount murders without significant risk of being caught cheating because the UCR data will conflict with other governmental statistics of deaths. New York Police Lieutenant Eugene Whyte bluntly explained why the Unadjusted Murder Rates are the best crime statistic in terms of most closely estimating the actual number of incidents: “You can’t hide a body unless you’re mafia or something like that.”¹⁶³ Although Unadjusted Murder Rates have higher variability year-to-year in smaller jurisdictions because murders occur less frequently than other crimes, they represent the best available statistic that is virtually guaranteed to be free of police manipulation.¹⁶⁴

2. Removing National Trends

To isolate Unadjusted Murder and Rape Rates from national trends requires the rescaling of data for each crime. There is a limited concern about unobserved variables (such as regional economic collapse) complicating the model used in this study because such variables are expected to equally affect the Unadjusted Murder and Rape Rates. As long as the relationship between the two crime rates is strong, the baseline of the Unadjusted Murder Rates would filter out extraneous trends in the data.

Initially, the Percentage Murder and Rape Rates are calculated for each police department in each year using this basic equation:

$$\text{Percentage Crime Rate} =$$

$$\frac{\text{Jurisdiction Yearly Crime Rate}}{\text{National Yearly Crime Rate}}$$

The result is a percentage crime rate in terms of the national average for the particular crime. So, if a city had an Unadjusted Murder Rate of 11.24 in 2001, it would have a Percentage Murder Rate of 200% (twice the national average of 5.62). Similarly, if a city reported an Unadjusted Rape Rate of 23.0 in 2007, it would have a Percentage Rape Rate of 75% (3/4 of the national average of 30.6). By placing both variables onto the same

20121121scottsdale-property-crime-rise-one-countys-lowest.html (“The city had an 8 percent decline in car thefts in 2011, marking at least the third consecutive annual decrease in this category. The decrease reflects a national trend resulting from technological advances, such as GPS-monitoring devices and smart chips embedded in keys . . .”).

161. ZIMRING, *supra* note 159.

162. *Id.*

163. Hiott, *supra* note 23 (internal quotation marks omitted).

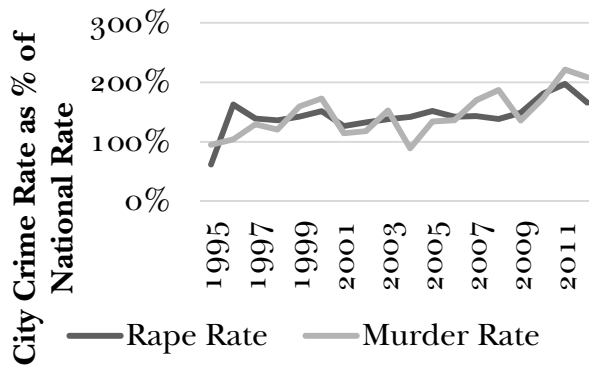
164. The FBI decided to exclude deaths caused by the terrorist attacks on September 11, 2001 from the overall murder statistics because of the unique nature of the event. *See* FBI, U.S. DEP’T OF JUSTICE, CRIME IN THE UNITED STATES: 2001, at 302–03 (2002). Had the FBI included the event, it would have made 2001 a true outlier in murders during the study period. *Id.* at 303. Without counting those deaths, year-to-year variability on a national scale was relatively limited. *See id.* at 19.

percentage scale, deviations in one rate from the other provide a means to test whether a jurisdiction is cheating. Unsurprisingly, the computed Percentage Murder and Rape Rates for the studied cities are strongly correlated in a statistically significant manner.¹⁶⁵

B. PROFILE OF A TYPICAL JURISDICTION

Typical jurisdictions had Percentage Murder Rates that closely tracked Percentage Rape Rates throughout the study period. For example, Omaha, in comparison to the national trend, exhibits a relative rise in violent crime over the last two decades. Figure 3 shows that as Omaha's Percentage Rape Rate increased, its Percentage Murder Rate similarly rose. Also of note, the Percentage Murder Rate, as expected because of the lower frequency of the crime, shows greater volatility during the study period.

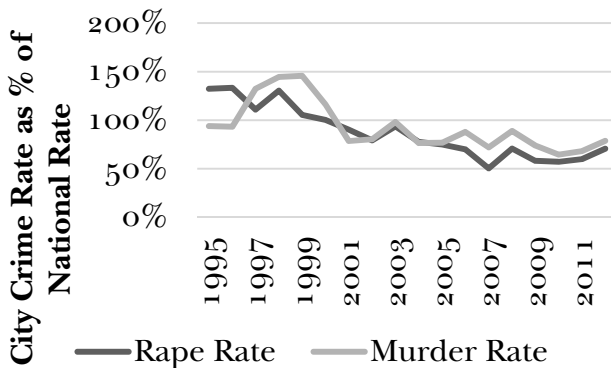
Figure 3: Omaha Rape and Murder Rates



In contrast to Omaha, Seattle had phenomenal success in decreasing violent crime during the study period. Figure 4 demonstrates the falling Percentage Murder and Rape Rates from 1995 to 2012. Although there was a spike in the Unadjusted Murder Rate relative to the national average in the late 1990s, the two normalized rates were highly consistent over the long-term.

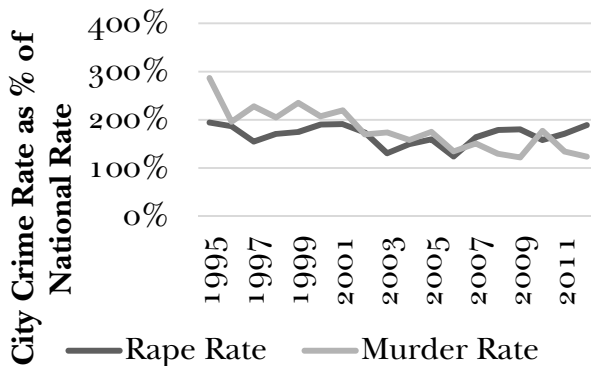
165. $p < .0001$ with a robust linear regression.

Figure 4: Seattle Rape and Murder Rates



Fort Worth provides a third example of a city with no clear signs of undercounting rape. Unlike Omaha and Seattle, Fort Worth’s violent crime rates do not show much change in either direction relative to the national trends. In all, modest progress was achieved in comparison to the national average in combatting both rape and murder, as illustrated in Figure 5.

Figure 5: Fort Worth Rape and Murder Rates



Seattle, Omaha, and Fort Worth provide examples of the strong relationship between murder and rape rates while reflecting different overall directional trends during the study period. However, any number of cities could have been chosen instead. As explained later in the next Part, the undercounting jurisdictions varied in particular ways that differentiated those cities from typical jurisdictions.

C. PROFILE OF AN UNDERCOUNTER

The crime data from 210 police departments includes any range of the number of possible jurisdictions that had suppressed their rape statistics.

The goal of the study is to effectively differentiate the subset of undercounters from police departments engaging in mainstream crime reporting practices. Focusing on the data from Baltimore, New Orleans, Philadelphia, and St. Louis provides the basis for understanding that differentiation.

The examples of Omaha, Seattle, and Fort Worth stand in sharp contrast to the trends in Baltimore, New Orleans, St. Louis, and Philadelphia. As indicated in Figure 6, there are two significant discrepancies between Baltimore's Percentage Murder and Rape Rates and the prior three cities examined. First, Baltimore's Percentage Murder Rate was much higher than its Percentage Rape Rate as exhibited in Figure 6. The city's Percentage Murder Rate ranged from approximately 550% to 800% of the national Percentage Murder Rates during the study period. In contrast, the Percentage Rape Rate was as low as 75% and as high as 200% of the national average. Excluding 2010 to 2012, the years the Baltimore Police Department attempted to correct its reporting methods after *The Baltimore Sun* report,¹⁶⁶ Baltimore's Percentage Murder Rate rose 35% while its Percentage Rape Rate fell 74%.

Figure 6: Baltimore Rape and Murder Rates

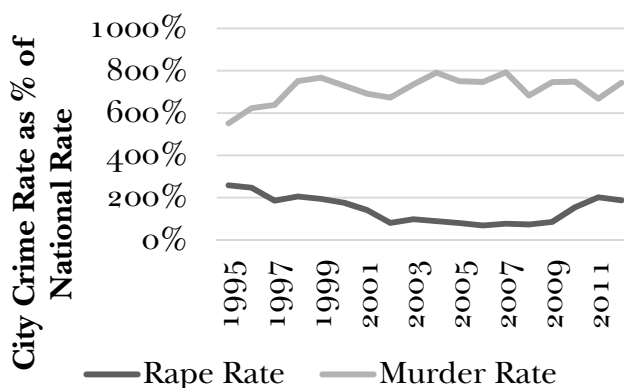
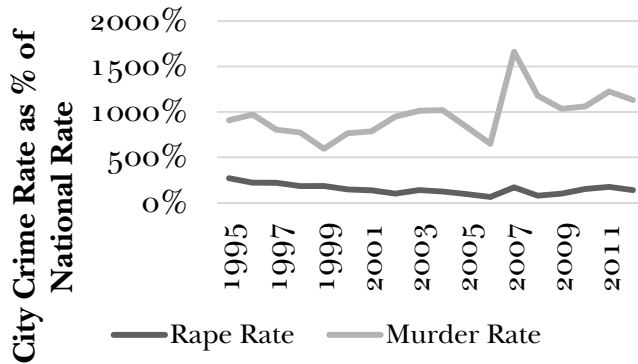


Figure 7 shows the crime data for New Orleans during the study period. The Percentage Murder Rate was as high as 16.9 times the national average while the Percentage Rape Rate was as low as a mere 65% of the national average. Further, New Orleans had a Percentage Murder Rate that rose over 100 percentage points while the Percentage Rape Rate fell by about the same amount during the study period.

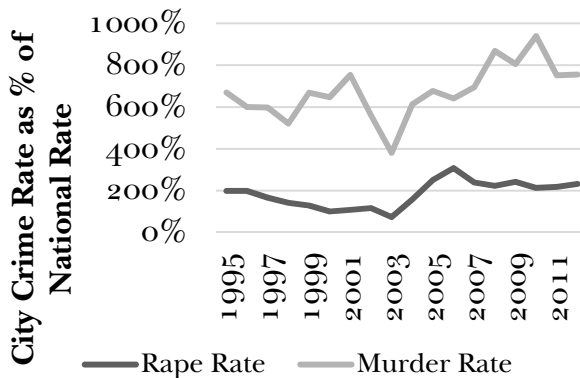
166. Fenton, *supra* note 4.

Figure 7: New Orleans Rape and Murder Rates



The data from St. Louis exhibits the same two unusual patterns as the previous two cities with one major difference: the timing of the media investigation leading to change in reporting policies. Whereas the Baltimore Police Department and New Orleans Police Department were both caught in 2009, the *St. Louis Post-Dispatch* exposed the local police manipulating their numbers in 2005.¹⁶⁷ Figure 8 shows the steady decline in the Percentage Rape Rates from 1995 to 2003, before the media investigation. After the newspaper report, the Percentage Rape Rate rose an incredible 425% over the next three years.

Figure 8: St. Louis Rape and Murder Rates



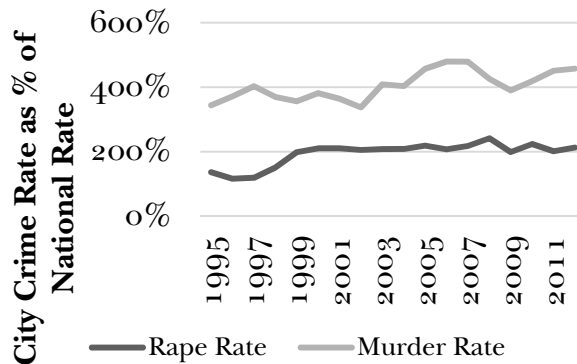
Despite the apparent correction in reporting, three worries remain with the data from St. Louis. First, at no time during the study period did the Percentage Rape Rate approach the high Percentage Murder Rate in the city, as would be expected. At their closest point, the two crime rates were

167. See Kohler, *supra* note 9.

still separated by over 300 percentage points. Second, the three-year correction period stands out as cause for alarm. No other city in the study had such a large increase during a three-year period. If St. Louis had truly corrected its reporting technique, the increase in the Percentage Rape Rate would have been expected to occur in a single year. That it took three implies that the police department smoothed the incline over a longer time frame. If true, that smoothing of the data raises the concern that data manipulation was ongoing during the period after media exposure. Third, after 2006 the Percentage Rape Rate was on a steady decline similar to the one exhibited during the time the police department used aggressive techniques to decrease reported rapes. During that same five-year window (from 2006 to 2010), the Percentage Murder Rate in St. Louis rose by over 44%. The oddity of the two trends, even accounting for the small sample sizes, creates the impression that the city police department has returned to its old ways.

Philadelphia provides a third example of a city with crime data that was definitely manipulated. However, the undercounting in Philadelphia that was documented by *The Philadelphia Inquirer* occurred at the leading end of the study period.¹⁶⁸ As Figure 9 indicates, the Percentage Rape Rate was particularly low in Philadelphia from 1995 until the newspaper investigation in 1998.

Figure 9: Philadelphia Rape and Murder Rates



Similar to the data from St. Louis and Baltimore, there are still some red flags in the Philadelphia crime statistics after media exposure. Notably, at no time did the Percentage Rape Rate approach the Percentage Murder Rate as is expected in a typical jurisdiction. Further, after the post-media-investigation data adjustment, the Percentage Rape Rate remained almost constant whereas the Percentage Murder Rate rose by over 100 percentage points.

168. Fazlollah et al., *supra* note 9.

D. TESTING POLICE DEPARTMENTS

Based upon a review of the four undercounting police departments, there is one clear pattern: a jurisdiction's Percentage Murder Rate is much higher than the Percentage Rape Rate. As a result, the mismatch between the two percentage rates serves as the predictor of whether a city is undercounting. To properly evaluate the data, the study uses a city-year as the unit of measure. That is, for each of the 210 studied police jurisdictions, there are eighteen city-years from 1995 to 2012. In total, there are 3480 city-years. Each city-year includes the Percentage Murder and Rape Rates to eliminate or minimize year-to-year variance due to unobserved variables. One advantage of the city-year framing of the data is that it offers a larger set of datapoints for comparison in determining statistical outliers. More importantly, the approach accounts for cities changing their practices and/or having some reported statistics within the normal range.

Because the difference between the Percentage Murder and Rape Rates is the core common factor among the known undercounting jurisdictions, a separate variable is created as follows:

$$\text{Difference Percentage Rate} =$$

$$\text{Percentage Murder Rate} - \text{Percentage Rape Rate}$$

As a result of that formula, police departments with negative Difference Percentage Rates have Percentage Rape Rates lower than predicted by the Percentage Murder Rates. Conversely, positive Difference Percentage Rates indicate Percentage Rape Rates higher than expected based upon the Percentage Murder Rates.

The initial goal of the study, to identify false rape data submitted by police to the FBI, is essentially a problem of identifying outliers.¹⁶⁹ Cities with unusually low rape rates in comparison to murder rates are likely to have undercounted the number of incidents reported. There is a

169. There is a wide array of techniques to detect statistical outliers. See generally Victoria J. Hodge & Jim Austin, *A Survey of Outlier Detection Methodologies*, 22 ARTIFICIAL INTELLIGENCE REV. 85 (2004) (discussing various outlier detection methods and the advantages and disadvantages of those approaches). Numerous methods were applied to the data in this study, but the results did not significantly vary. One particularly interesting technique for social science researchers is a recently developed multivariate outlier detection tool. It is the type of algorithm found in other types of fraud detection such as those used by credit card companies, state benefit distributors, and cell-phone companies. *Id.* at 87–88. The specific program is aimed at estimating the minimum covariance determinant (“MCD”). See generally Vincenzo Verardi & Catherine Dehon, *Multivariate Outlier Detection in Stata*, 10 STATA J. 259 (2010). The MCD estimator focuses on determining the proximity of a data point to other points in subsets of the data. Notably, it uses an unsupervised process meaning that it does not require the researcher to provide prior assumptions of data. The authors found that the MCD method was much better at identifying outliers than techniques utilizing Mahalanobis and Hadi distances. *Id.* at 264. Although this technique showed promise for the present study, it was ultimately determined that detecting outliers in UCR data was really a univariate and not a multivariate problem. As a result, the more well-known Median Absolute Deviation technique described herein was used instead.

methodological difficulty with the data in terms of identifying jurisdictions likely to have undercounted rape. The two variables at the core of the study, murder and rape rates, are formed of count data. That is, the incidents of rape and murder are simply tallies of police reports. As with much count data, the distribution of the results is not statistically normal.¹⁷⁰ Instead, the underlying counts and Unadjusted Murder and Rape Rates form Poisson distributions typical of count data.¹⁷¹ One way of addressing Poisson distributions is to use a statistical transformation to make the data meet criteria for a normal Gaussian distribution.¹⁷² However, such transformations render the differences between data unusable for the proximity-based outlier detection techniques most appropriate to the data.

Thankfully, there is an effective, valid method for assessing data with unusual distributions skewed in a particular direction: median absolute deviation (“MAD”).¹⁷³ Like its statistical cousin, the well-known standard deviation (“SD”), MAD is concerned with measuring data dispersion.¹⁷⁴ However, unlike SD, MAD does not require that the data be normally distributed because it relies on a median rather than a mean, making it far more robust against outliers.¹⁷⁵ This is particularly important in the present study because its very purpose is to separate potential outliers without letting those same outliers drive the results. Similar to a z-score determined by determining the SD of a data point, the MAD is the number of median absolute deviations from the median of the data.

The MAD value for the Difference Percentage Rate for each city-year in the study is determined yielding an unusual distribution. Figure 10 shows that far more city-years have unusually negative MAD values (indicating lower than expected Percentage Rape Rates) than positive MAD values. Indeed, 157 city-years had MADs at least 6 deviations below the median whereas only 7 city-years had MADs at least 6 deviations above the median.

170. Jeffrey Fagan, Garth Davies & Adam Carlis, *Race and Selective Enforcement in Public Housing*, 9 J. EMPIRICAL LEGAL STUD. 697, 708 (2012).

171. *Id.* (“With count data, the probability of the observed outcome, y , is often assumed to follow a Poisson distribution.”).

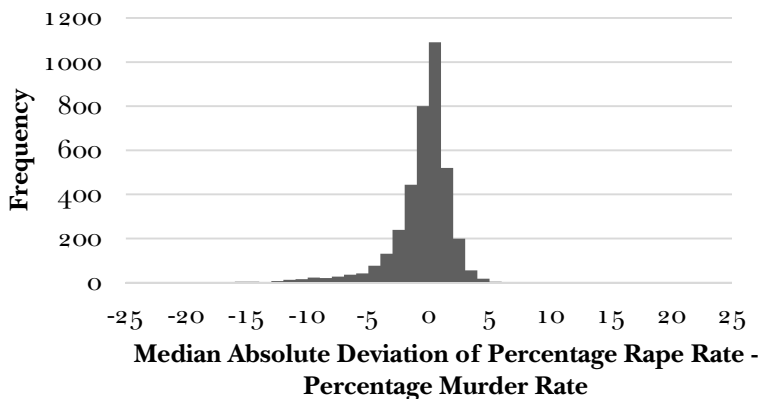
172. See, e.g., Franklin E. Zimring, Jeffrey Fagan & David T. Johnson, *Executions, Deterrence, and Homicide: A Tale of Two Cities*, 7 J. EMPIRICAL LEGAL STUD. 1, 16 (2012) (using a logarithmic transformation for Poisson distribution data).

173. MAD is defined as follows: $MAD = \text{median}_i (|X_i - \text{median}_j (X_j)|)$. THOMAS DIETZ & LINDA KALOF, *Introduction to SOCIAL STATISTICS: THE LOGIC OF STATISTICAL REASONING* 128 (2009).

174. Yulia Gel, Weiwen Miao & Joseph L. Gastwirth, *The Importance of Checking the Assumptions Underlying Statistical Analysis: Graphical Methods for Assessing Normality*, 46 JURIMETRICS 3, 9 (2005) (“Both the median and median absolute deviation are significantly less sensitive to outliers than the mean and standard deviation and therefore are preferable in many practical situations.”).

175. *Id.*

Figure 10: Distribution of Median Absolute Deviations of Differences Between Percentage Rape and Murder Rates



The distribution of the MAD values provides strong evidence of police undercounting of rape statistics. Whereas most of the reported data falls very close to the median value, hundreds of reports to the FBI included rape rates far below what would be expected by the concurrently reported murder rates. In contrast, only a small handful of jurisdictions had unusually high rape rates. This highly asymmetrical distribution supports the notion that the data is heavily skewed in the direction of rape undercounting with no counterbalancing statistical noise in the other direction.

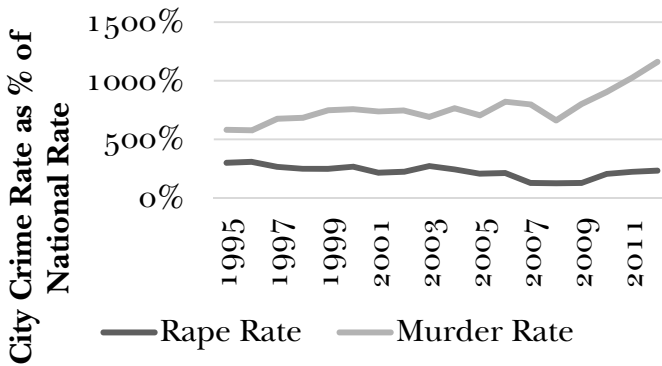
Because the MAD technique for identifying outliers is flexible and robust, determining the cutoff line for the number of MADs a data point must be to be designated an outlier is not settled.¹⁷⁶ Particular data distributions can result in very different lines for where a data point becomes an outlier.¹⁷⁷ Nonetheless, the two most common levels of dispersion used in the social sciences are either two or three MADs from the median (“MAD₂” and “MAD₃,” respectively). The distribution of the data illustrated in Figure 10 above strongly supports a MAD₂ or MAD₃ line for determining outliers because the overwhelming majority of the data is located within MAD₂. The results discussed in this study use both the MAD₂ and MAD₃ cutoff lines to provide high- and low-end estimates of the level of police undercounting. Notably, the four cities with established records of undercounting (Baltimore, New Orleans, Philadelphia, and St. Louis) are MAD₂ outliers in all seventy-two city-years and MAD₃ outliers in sixty-eight of the seventy-two city-years.

176. ROBERT FINGER, ROBUST METHODS IN REGRESSION ANALYSIS—THEORY AND APPLICATION 41–42 (2007).

177. *Id.*

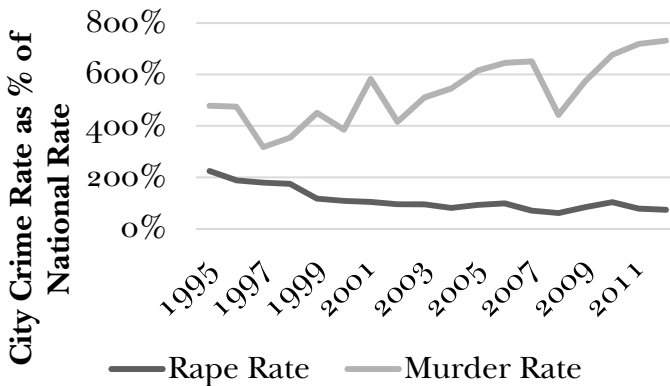
Among the other forty-six cities with dubious rape data, Detroit exhibits a large difference between its reported rape rate and what is expected based upon its murder rate. It also has diverging trends as Detroit’s murder rate has been increasing in comparison to the national average while its rape rate has been declining. Figure 11 illustrates that, in 2012, Detroit’s murder rate was nearly 1200% of the national average while its rape rate rose to about 200% of the national average. The long-term trends were also headed in opposite directions as the Percentage Rape Rate dropped approximately 100 percentage points while the Percentage Murder Rate rose by over 100 percentage points. The results indicate that all eighteen years of data from Detroit are outliers with from approximately -4.5 MAD to -15.4 MAD.

Figure 11: Detroit Rape and Murder Rates



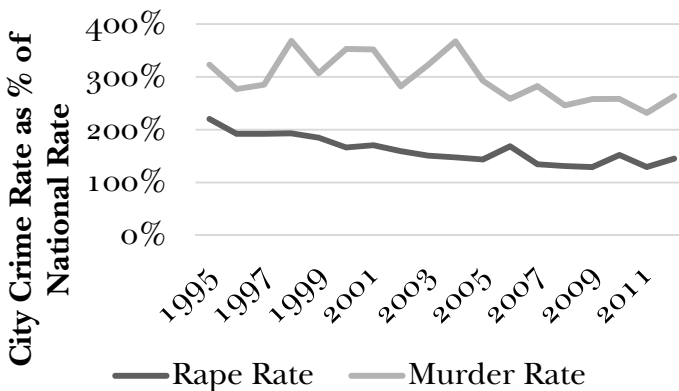
Newark, New Jersey also submitted data which appears highly suspect. Figure 12 shows the Percentage Rape and Murder Rates for Newark from 1995 to 2012. During that period, Newark’s Percentage Murder Rate rose over 200 percentage points while its Percentage Rape Rate decreased by nearly two-thirds. MAD₂ designates every year of the Newark data as outlying whereas MAD₃ determines that seventeen of the eighteen years were outliers.

Figure 12: Newark Rape and Murder Rates



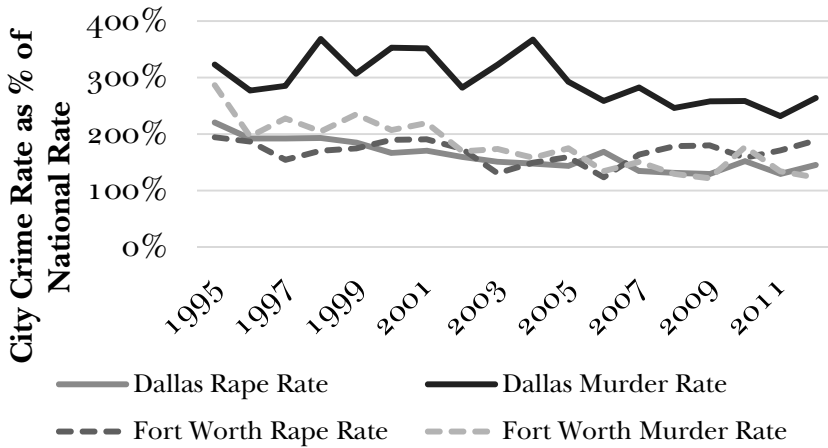
Dallas, which had twelve outlier years under MAD₂, provides an interesting case study. Figure 13a illustrates that the city’s Percentage Rape and Murder Rates are consistently separated by about 150 percentage points.

Figure 13a: Dallas Rape and Murder Rates



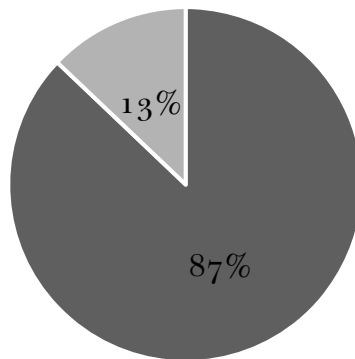
Dallas provides a useful example because of its geographic connection to Fort Worth, which is also studied and discussed earlier (Figure 5). Figure 13b places the percentage data from both Dallas and Fort Worth on the same axes. The Dallas and Fort Worth Percentage Murder and Rape Rates are highly consistent throughout the study period. The one set of data that is dissimilar is the Percentage Murder Rate from Dallas, which is significantly higher than the other three lines. The comparison of the two cities highlights that Dallas is expected to have a much higher rate of rape to correspond with its higher murder rate during the study period.

Figure 13b: Dallas and Fort Worth Rape and Murder Rates



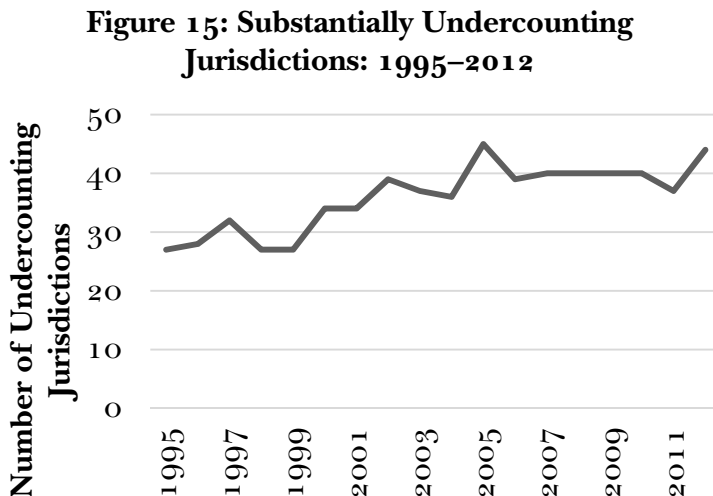
In total, at least 46 police departments responsible for populations of at least 100,000 persons have substantial statistical irregularities in their rape data indicating significant undercounting during the study period of 1995 to 2012. Those 46 jurisdictions, which included the four known undercounters, had outlying data in at least one-third of the eighteen years. Shifting the unit of measure from city-year back to police jurisdictions shows that cities are far more likely to be undercounting rape than having high rape rates. Figure 14 shows that 87% of the cities with MAD₃ outliers had lower than expected rape rates, whereas only 13% had higher than expected rape rates.

Figure 14: High and Low Rape Rates Among Outlying Jurisdictions



■ Rate Rape at least 3 MADs Low ■ Rate Rape at least 3 MADs High

More disconcertingly, the number of cities undercounting appears to be on the rise. Figure 15 demonstrates that the number of undercounting cities has risen by an astonishing 61% during the study period. Given the strong incentives and cultural norms underlying undercounting rape, combined with the lax scrutiny applied to the UCR data, there is every reason to expect this trend to increase.



III. ESTIMATING THE LOST DATA

The next step in the study is to determine the magnitude of the undercounting that likely occurred during the study period. The method for creating the counterfactual data for the jurisdictions studied is relatively straightforward. The technique relies upon two basic assumptions: (1) a city would not have manipulated its rape statistics to create a higher value than predicted by its Percentage Murder Rate; and (2) the Percentage Murder Rate effectively predicts the Percentage Rape Rate in a particular year. Relying on those two assumptions, the following formula is applied to each city-year of the study period designated as an outlying low rape rate (as determined by having had at least one-third of the study years be determined as an outlier):

$$\text{New Rape Rate} =$$

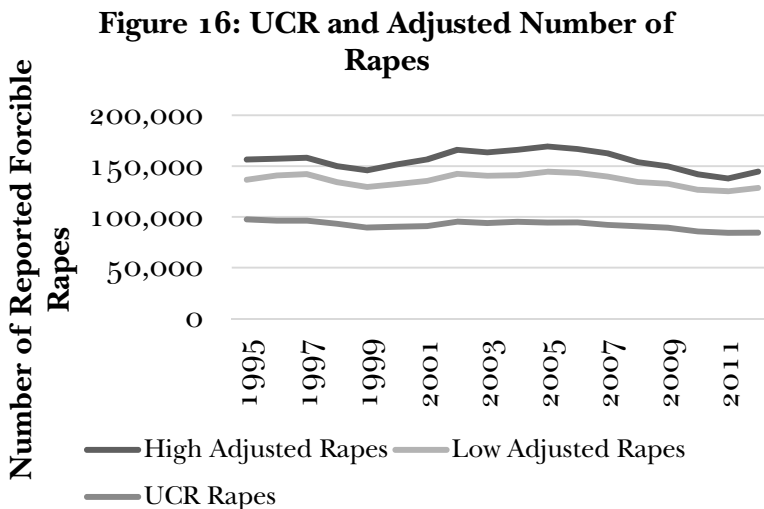
$$\text{City-Year Percentage Murder Rate} * \text{Yearly National Average Rape Rate}$$

The New Rape Incidents are then totaled based upon the New Rape Rate for each jurisdiction.

The New Rape Rate and New Rape Incidents are computed solely for the sample of the 210 jurisdictions throughout the United States studied and need to be extrapolated upon to determine national values for each variable. Rather than deriving a new technique, the study uses the FBI's preexisting method for imputing UCR data for cities not in the study

sample. Because the UCR has not had complete data for every jurisdiction throughout its history, the FBI has had to estimate data for non-participating jurisdictions and for missing data.¹⁷⁸ The UCR imputation method for non-participating jurisdictions assumes that the rate of crime would be constant in sampled and non-sampled jurisdictions. This study uses this technique and assumes that the rate of undercounting would be similar among studied and non-studied jurisdictions.

Including the data likely omitted by the police departments significantly changes the national rape statistics. Figure 16 illustrates the different number of reported rapes using the unadjusted, high estimate (MAD₂ outliers), and low estimate data (MAD₃ outliers). I find that 796,213 to 1,145,309 rapes were not included in the UCR due to police undercounting from 1995 to 2012.



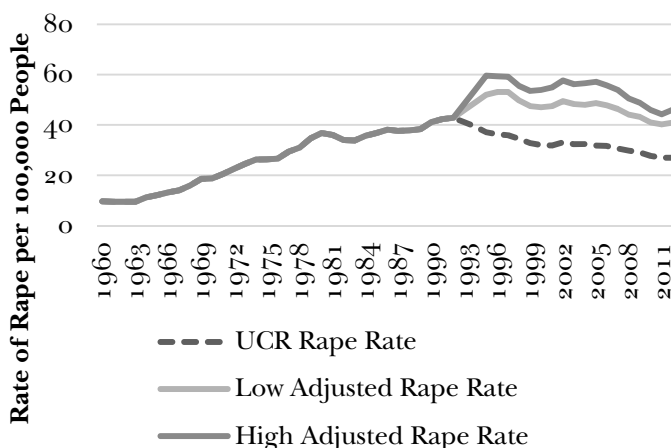
The corrected data also indicates that, using the higher estimate, 1995 to 2012 had the eighteen highest rates of rape in American history (since the UCR began reporting rape data in 1930).¹⁷⁹ Figure 17 shows the rates of rape from 1960 to 2012 using the unadjusted, low-adjusted, and high-adjusted estimates.¹⁸⁰

178. Barnett-Ryan, *supra* note 33, at 70–72 (describing how the FBI uses population of non-participating jurisdictions and rates of crime in other jurisdictions to estimate incidents of crime in non-participating jurisdictions).

179. The low estimate indicates that fourteen of the eighteen studied years are the highest in history.

180. For the low adjusted and high adjusted data, the years of 1960 to 1992 were made to be identical to the unadjusted UCR. As noted in Part I.A.2, the study period was intentionally defined to exclude 1993 and 1994 to avoid drawing inferences that were really a regression to the mean. However, the results of the study seem to indicate that 1992 was not a peak value and the long term trend continued upward. As a result, I removed the Unadjusted Rape Rates for 1993 and 1994 and substituted values $1/3$ and $2/3$ between the difference between the 1992

Figure 17: UCR and Adjusted Rape Rates 1960–2012



The sheer magnitude of the missing data illustrated in Figure 17 is staggering. The results indicate that police undercounting is not the mere activity of a few rogue jurisdictions. Indeed, for approximately one-million rapes to disappear from official records is strongly indicative of systemic willful intent. Further, the focus on undercounting rape has severely altered the historical record utilized for designing effective crime policy.

Nonetheless, there are at least three reasons to believe that the study, by using conservative assumptions, is actually understating the number of rapes left out of the annual UCR during the study period. First, the study uses an outlier detection tool that assumes that the majority of jurisdictions are accurately reporting their crime statistics. However, as the examination of the cultural forces and political pressures on police indicates, there were strong reasons for police in every department nationwide to have engaged in at least some undercounting. Unfortunately, that is a limitation of using outlier identification as the basis for false data detection: there is an assumed baseline of “normal” activity within any dataset. Second, the test is likely underinclusive because of some extreme examples in the data. In particular, the data from Baltimore and New Orleans is so far removed from the other cities that it raises the threshold for outlier identification even using the robust MAD method. Essentially, by having many strong outliers, weaker outliers do not appear as different from the rest of the sample. Third, the type of rape measured in the UCR (forcible vaginal rape of a female) likely includes the rapes of which are hardest for police to remove from official records. In contrast to far more common non-forceful acquaintance rapes, forcible stranger rapes often have

Unadjusted Rape Rate and the new 1995 data. This was done to show the likely shape of the trend, but the “lost” rapes indicated in the graph for 1993 and 1994 were not included in any of the statistical conclusions of the study.

associated hospital records for traumatic injury and positive rape kits. If a police department is focused on intentionally undercounting rapes, it would prove far easier to dispose of complaints without medical records or documented physical manifestations. As a result, it is reasonable to believe that the rate of undercounting observed in this study is too low, as willfully hiding an acquaintance rape complaint is far easier than doing so in the realm of the rape reports measured in this study.

IV. IMPLICATIONS

Although there is value in simply having information that brings us closer to the truth regarding the prevalence of rape in America, the study's results also have moral and policy ramifications. Police undercounting by its nature denies victims the truth of their experience. Further, the practices that enable undercounting often involve police harassing and verbally abusing victims to achieve statistical ends. Finally, the lack of accurate data means that America's policy prescriptions are based upon faulty assumptions concerning the magnitude of the problem and effectiveness of the status quo programs.

A. MORAL DIMENSION

Rather than attempt to speak for victims about the experience of being raped followed by police disbelief, I prefer to let the victims' stories explain why treating a complaint as a "rape" is important.¹⁸¹ Sara Reedy offered this lengthy testimony before the Senate Judiciary Committee about what happened to her when reporting a rape that occurred when she was nineteen years-old in a town near Pittsburgh, Pennsylvania:

On July 14, 2004, I was working . . . at the Cranberry Gulf Station on Route 19 by myself. At about 10:40 p.m., a man came into the store. He proceeded to walk through the store and then approached the counter, where he pulled a gun out and pointed it at me. He demanded that I sit on the floor in the corner, and he came behind the counter where the register was located. . . . After removing the cash, he came and stood directly in front of me, where he held a gun to my left temple and demanded that I give

181. Particularly in rape stories, there is significant value in the unaltered victim's words as opposed to crude paraphrasing. Perhaps the most well-known rape narrative in scholarship was in Professor Susan Estrich's law review article *Rape*, where she told her story of having been a rape victim to open her piece. See Susan Estrich, *Rape*, 95 YALE L.J. 1087, 1087-89 (1986). Professor Kathryn Abrams persuasively contended that Estrich's story, like other rape narratives, effectively captures certain elements of the criminal justice handling of rape that would be lost in the dry legalese typical of scholarship. See Kathryn Abrams, *Hearing the Call of Stories*, 79 CALIF. L. REV. 971, 983-87 (1991). I do not want to rehash and engage the debate about the value of narratives in legal scholarship, but simply to explain the inclusion of the long, by legal scholarship standards, stories within this Article.

him oral sex, saying “if you do not swallow, then I will shoot you.” . . .

Following the assault, I went next door to . . . an automotive shop. I had one of the employees call 911 and reported the crime. I stayed at the shop where several officers showed up, and I gave them a description of the attacker and my account of the assault. . . .

When I arrived in the emergency room, I was put in a small office, where I begin to retell the night’s events to Detective Evanson. At one point he asked me how many times a day I used heroin. . . .

He asked me countless times where I had put the money or where the money was. . . . At one point I got very upset and was crying, and he told me that “my tears would not save me.” . . .

The next day I went to the Cranberry police station with my mother and stepfather to give a written statement as asked by Detective Evanson. . . . After finishing my written statement, Detective Evanson came into the room and began to question and accuse me about the theft. . . .

. . . I had lost hope of my attacker being caught because of Detective Evanson’s unwillingness to believe my story.

Two months after I was assaulted, another woman was sexually assaulted within 2 miles of my attack. Detective Evanson was assigned to this case. This woman gave almost the same exact description of her attacker and his M.O. as I had. Unfortunately, Detective Evanson was unable or just refused to make the connection between the two assaults, because he still accused me of fabricating my story.

Detective Evanson even showed up at my residence where he called a marked police car for backup. He stood outside my house asking me to change my written statement and to confess to the crime and they would go easy on me. . . .

On Sunday, January 14, 2005, a warrant for my arrest was issued for theft, receiving stolen property, and filing a false police report. On Thursday, January 18th, I went to the Cranberry magistrate and turned myself in. . . . I spent the next 5 days in jail waiting for a bond reduction hearing and a bondsman so I could be released. This all happened while I was 4 months pregnant with my first child.

While awaiting trial, I had contacted a statewide tip line for a serial rapist. I talked to an officer and made him aware of the fact

that I was assaulted and that I believed it was the same man they were looking for. I also explained that I reported the crime and my complaint was not taken seriously and I was arrested for the crime.

Over 13 months after I was assaulted, a statewide search for a serial rapist ended. A man by the name of Wilbur Brown was caught in the act of sexually assaulting a gas station attendant in Brookville. After being placed under arrest, Wilbur Brown confessed to 12 different sexual assaults. One of those assaults happened to me.

....

... Because of Detective Evanson's uncooperative attitude and unwillingness to believe me, the victim, a serial rapist was allowed to continue attacking and assaulting other women.¹⁸²

Reedy ultimately sued Evanson, the local police department, and other people involved in the case.¹⁸³ The federal district court granted summary judgment for the defendants, but the Third Circuit reversed. Subsequently, the parties reached a settlement.¹⁸⁴ Notably, Detective Evanson from Reedy's story is still a police detective.¹⁸⁵ After the settlement, the town manager explained why no adverse employment action was taken against Detective Evanson, by contending: "[T]here was no wrongdoing. Every action [Evanson] took was approved by all law enforcement agencies involved and at every level. . . . It was just unfortunate."¹⁸⁶

Victims are often treated horrifically based upon the interaction of cultural rape myths and police policies. Consider this recent story from a woman kidnapped at gunpoint from her college during winter break:

They asked me if I wanted a woman police officer; I didn't care. A police officer is a police officer. I had never had any contact with the police. I didn't know they might treat you differently. Immediately they told me I was lying and on drugs. Straight up! 'You're on drugs.' My eyes were blood shot because I was so stressed and traumatized. [They kept saying] 'You're lying, you're lying! Stand up, close your eyes, and count to thirty. Can you count to thirty?' I got to thirty. Apparently they talked to my friends,

182. *Senate Hearing on Rape in the United States*, *supra* note 18, at 16–17 (statement of Sara R. Reedy).

183. Karen Kane, *Cranberry's Insurer Approves \$1.5 Million Settlement over Arrest*, PITTSBURGH POST-GAZETTE (Dec. 17, 2012, 12:00 AM), <http://www.post-gazette.com/local/north/2012/12/17/Cranberry-s-insurer-approves-1-5-million-settlement-over-arrest>.

184. *Id.*

185. *Id.* He appears to still be listed as the highest ranking police detective on the police department's website as well. *Public Safety Staff Directory*, CRANBERRY TOWNSHIP, <http://www.twp.cranberry.pa.us/Directory.aspx?DID=21> (last visited Jan. 21, 2014).

186. Kane, *supra* note 183 (quoting Jerry Andree) (internal quotation marks omitted).

because they were two guys. They said ‘You put her up to this. You told her to do this for fun. You are all on drugs. Here is how it is: stop telling me this fairytale. Tell me the truth or you will personally go to prison for lying to a police officer. And I will send you to an all women prison so women could rape you.’ I was stunned. Why was I defending myself? The victim shouldn’t have to. The officer said most women would rather die than be raped. Then he told me at least three or four times to say I was lying and this won’t go on further. He said we can drop this and forget all about it. For a moment I thought that maybe I should say that I was lying so I wouldn’t have to deal with this anymore.¹⁸⁷

Because many victims have been reluctant to come forward fearing backlash, other stories have only appeared secondhand in media accounts. For example, during the Baltimore Police Department’s heyday of “unfounding” rape complaints, this story was recounted in *The Baltimore Sun*:

The 32-year-old woman was walking through a midtown alley last January when a man pressed a gun to her shoulder and told her, “Don’t scream.”

At the hospital, where she was treated for vaginal bleeding, the woman recounted being raped at gunpoint, in a vehicle with black leather seats. When it was over, her attacker told her to walk away slowly and not look back.

The police detective’s report reflects the tone of his questioning in the hospital room: Why had she waited two hours to call police? Why didn’t she flag down a squad car? Where was she coming from before she was assaulted? Who was she with? Frustrated, the woman retracted her statement and signed a new one saying that nothing had happened.

No longer a rape, the incident was now classified as “unfounded,” police parlance for saying the victim was lying or they do not believe a crime occurred.¹⁸⁸

These three stories make clear the moral bankruptcy of the failure by police to treat a rape victim as a victim of “rape.”¹⁸⁹ Society has an obligation to stop rape and prosecute rapists. The current practices are

187. Spohn & Tellis, *supra* note 117, at 1414 (alteration in the original).

188. Fenton, *supra* note 85.

189. Notably, I chose three narratives in this Part that were atypical stranger rape cases (as opposed to more common acquaintance rapes). This choice is dictated by the nature of the rape statistics in the UCR. Because the FBI only counts forcible rape, stories of police disbelief of non-forcible acquaintance rapes do not directly relate to the findings of this empirical study. Unfortunately, my limitation in discussing forcible stranger rapes repeats the historical pattern of focusing on such cases to the exclusion of the prevalent form of rape in America, non-stranger rape.

incredibly far from that basic precept. What is worse is that the extent of rape in America has been covered up—rape victims have been denied basic dignity, so that some police could manipulate statistics to simply achieve artificially designated crime benchmarks.

B. DEPRIORITIZATION

Undercounting rape is not just a statistical shell game, but a tactic that inhibits effective law enforcement. The various techniques used to intentionally hide rape complaints have left rapists free by halting further investigation. When a complaint is classified as “unfounded,” the police conduct no further investigation.¹⁹⁰ Without a written report, there is no documented police inquiry.¹⁹¹ Even when a rape complaint is downgraded to a lesser offense, far fewer resources and personnel have been used in the subsequent investigation.¹⁹² The UCR ultimately gives police incentives to misclassify rape cases because of the importance of statistics in determining career advancement, pay increases, and budgeting.¹⁹³

Documented instances of police dismissing rape complaints to achieve statistical goals have demonstrated the real danger from undercounting. In Cleveland, police found eleven decomposing bodies in the home of Anthony Sowell, a serial rapist and murderer who was free to commit more crimes due to police mistreatment of rape complaints.¹⁹⁴ Three separate women had filed complaints against Sowell for sexual assault prior to the discovery of the bodies in his home.¹⁹⁵ The detective assigned to investigate the first report designated it “unfounded” without conducting any investigation as required for the UCR classification.¹⁹⁶ A woman arrested on an outstanding warrant made the second complaint and, perhaps because the police thought someone being arrested was not credible, no written record was made to the sex crimes unit.¹⁹⁷ The woman who made the third report was interviewed by police, but there was no second interview scheduled and the case stalled.¹⁹⁸ Sowell was eventually captured only because the third complainant contacted police, again of her own volition,

190. See Lonsway & Archambault, *supra* note 6, at 160–61.

191. See *id.* at 152.

192. See *id.* at 151–52.

193. *Senate Hearing on Rape in the United States*, *supra* note 18, at 33 (statement of Michelle Madden Dempsey) (“I think that the problem with unfounding cases is not only a problem of police misconduct but is also a problem of the structure of the UCR program in the way that it encourages officers to unfound cases in order to clear them.”); COLE & SMITH, *supra* note 96.

194. Lonsway, *supra* note 26.

195. *Id.*

196. *Id.*

197. *Id.*

198. *Id.* Police could not locate the woman to conduct the second interview. *Id.*

which led to the search of Sowell's house where the bodies were discovered.¹⁹⁹

Although the Sowell case might sound extreme, serial rapists are actually the norm and not the exception. Some research indicates that 91% to 95% of rapes are part of a series by the perpetrator.²⁰⁰ Given the low levels of conviction for rape, high pre-arrest recidivism should not be surprisingly—rapists feel little threat from law enforcement and can be emboldened by their “success” in raping with impunity. Full investigation of reports can lead to earlier arrests that prevent serial rapists from finding more victims.²⁰¹ Police departments who have undercounted rape have essentially given “Get Out of Jail Free” cards to rapists by downgrading or ignoring rape complaints.

The deprioritization of rape investigations due to undercounting coincides with the same phenomenon observed in the failure of cities across the nation to test rape kits. After county prosecutor Kym Worthy drew attention to the over 10,000 untested rape kits in Detroit, a national outcry led to further examination in other jurisdictions.²⁰² A 2009 media investigation identified numerous cities with tens of thousands of rape kits that have gone untested for years or decades.²⁰³ More recently, Memphis, Tennessee discovered approximately 12,000 rape kits that were never subject to DNA testing to find possible matches.²⁰⁴ Notably, among the ten cities identified as recently having had a confirmed number of untested kits, seven (Birmingham, Alabama; Detroit, Michigan; Houston, Texas; Los Angeles, California; Memphis, Tennessee; Oakland, California; Phoenix, Arizona) are found to be likely substantial undercounters in this study.²⁰⁵ In one city, as the ignored rape kits have been tested, 21% have matched DNA in the system.²⁰⁶ Although there is no specific sufficient evidence linking the rape kit backlog with the premature decision to not investigate rape complaints described in this Article, it seems logical the two impediments to rape law enforcement are linked. Further, as with the failure to test the rape kit, the decision to not investigate rape complaints has allowed offenders to find more victims.

199. *Id.*

200. *Id.*

201. *See id.* at 1365–66.

202. Rosie Swash, *Kym Worthy and the Fight to Investigate Detroit's 11,000 Forgotten Rapes*, GUARDIAN (Aug. 26, 2013, 1:32 PM), <http://www.theguardian.com/lifeandstyle/2013/aug/26/kym-worthy-detroit-forgotten-rapes>.

203. Laura Strickler, *Rape Kits Data, By the Numbers*, CBSNEWS (Nov. 9, 2009, 3:12 PM), <http://www.cbsnews.com/news/rape-kits-data-by-the-numbers>.

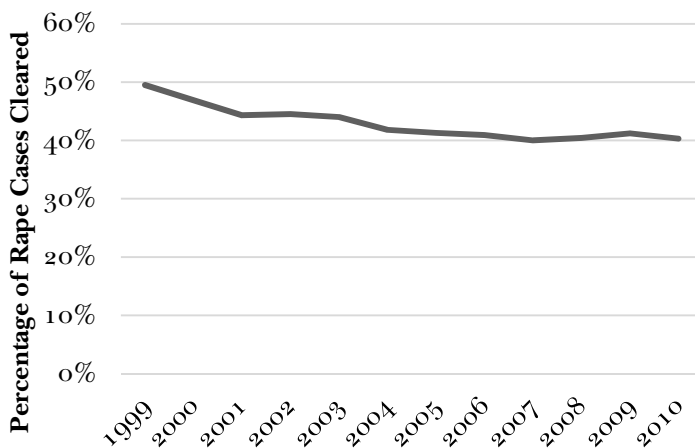
204. Toby Sells, *Memphis Is Not Alone in Facing a Backlog of Untested Rape Kits*, COM. APPEAL (Sept. 8, 2013, 3:53 PM), <http://www.commercialappeal.com/news/2013/sep/08/memphis-is-not-alone-in-facing-a-backlog-of-rape>.

205. *See id.*; Strickler, *supra* note 203.

206. Rachel Dissell, *Rape Kit Tests Identify Lots of Potential Serial Rapists*, CLEVELAND.COM (Oct. 29, 2013, 6:33 AM), http://www.cleveland.com/metro/index.ssf/2013/10/rape_kit_tests_identify_lots_o.html.

A defender of undercounting police departments might contend that by focusing on the strongest rape complaints, they would be more efficient in finding and arresting rapists. However, the trends in rape cases have been worrisome and have not supported the efficiency theory.²⁰⁷ In the 1970s, approximately one out of two rape reports led to an arrest.²⁰⁸ By 2008, that rate dropped to about one out of every four rapes.²⁰⁹ Even since 1995, the study period used in this Article, the rate of arrest has significantly diminished.²¹⁰ In contrast, every other violent crime measured by the UCR has shown an increasing or steady rate of arrest during the same time period.²¹¹ Figure 18 shows the clearance rates for rape cases in the UCR data from 1999 to 2010. During that time, the rate of clearance has dropped from approximately 50% to about 40% of reported rapes.

Figure 18: Percentage of Rape Cases Cleared 1999–2010



The deprioritization of rape complaints undermines the critical law enforcement goals of preventing and deterring sexual violence. As the Sowell case indicates, rapists are free to commit more crimes, often with escalated levels of violence, because police do not properly investigate complaints. As the risk of arrest and conviction decline, so does the certainty of punishment. Although there is scant empirical research regarding rape laws and deterrence, decreasing the probability of arrest can only undermine the deterrent value of rape statutes.

There are also systemic risks of deprioritization because of rape statistic manipulation. Policymakers regularly use UCR data to determine

207. See Lonsway & Archambault, *supra* note 6, at 149–50.

208. *Id.* at 150.

209. *Id.*

210. *See id.*

211. *Id.*

the efficacy of particular laws and programs.²¹² The rape data that the FBI reports, based upon nationwide undercounting of rape, portrays a picture of steadily declining sexual violence for the last two decades. As a result, policymakers have almost universally concluded that the current approaches to criminal justice and social policy are the right ones in confronting sexual violence because of their apparent successes.²¹³ That conclusion has undermined pressure for needed solutions, as once powerful activists and organizations that led the successful campaign to reform rape laws have dissipated and lost influence in the face of declining reported incidents of rape.²¹⁴ Without an honest accounting of the magnitude of America's rape crisis, the impetus for needed change has simply disappeared.²¹⁵ Knowing the real level of sexual violence in America will hopefully enable legislatures to move forward by implementing policies needed to effectively combat sexual violence.

CONCLUSION

The United States is in the midst of a rape crisis. Many police have willfully suppressed evidence of its existence to create the impression that rape has been steadily decreasing over the last two decades. Others may have allowed cultural biases against rape complaints to guide their treatment of victims and decisions to investigate further. This Article contradicts and rebuts the conventional wisdom that the crime data shows that America has been winning the battle against sexual violence. Instead, a conservative estimate of an additional 796,213 to 1,145,309 forcible rapes of women have been reported to authorities, but police have hidden them from the public record, thereby feeding the myth of the "great decline" in rape. However, merely disproving the widespread belief that rape has been substantially reduced is not enough. Governments across the country must enact significant policy changes to prevent rape and eliminate police undercounting of reports of rape.

Rape has not received significant priority in law enforcement, as crime data has lessened the perceived urgency for action. That can and should be changed with budgetary, resource, and personnel increases from the federal and/or state authorities. Local governments and police departments should allocate more of their existing officers to sexual assault investigations instead of low-level, non-violent crimes. Further, police should implement secondary review of rape complaints to ensure that officers are thoroughly investigating cases labeled as "unfounded" or similar internal

212. See JAMES & COUNCIL, *supra* note 5, at 1.

213. See ZIMRING, *supra* note 159, at 26–29 (explaining that declining crime rates lead to optimism about the effectiveness of current crime policy).

214. See ROSE CORRIGAN, UP AGAINST A WALL: RAPE REFORM AND THE FAILURE OF SUCCESS 40–42 (2013).

215. See *Senate Hearing on Rape in the United States*, *supra* note 18, at 31 (statement of Eleanor Cutri Smeal).

department designations that have in the past disguised large numbers of rape cases.

The FBI needs to expand its oversight of data submission and training of police officers in using the UCR system. The UCR data, particularly concerning rape, is full of red flags. The FBI currently does nothing when cities report unprecedented decreases in the prevalence and rate of rape while murder incidents and rates skyrocket. Even though the UCR program is voluntary, the FBI is free to investigate irregularities in the data and, if malfeasance is found, ask police departments to address the data issues. If necessary, the FBI can assign monitors to jurisdictions with systemic irregularities in their rape data. Further, the FBI needs to expand its training in the UCR system beyond the handful of officers that have presently received it. At a minimum, doing so can undermine the cultural environment that encourages statistical manipulation in many police departments across the country.

None of these proposals will be cheap or easy to implement, but the cost of inaction is too high. Each year that police systemically underreport rape, the gap between the publicly disseminated data and the actual number of rape complaints widens. If it continues unabated, ever-increasing numbers of rape victims will not get justice and more rapists will be free to prey on new targets. As a result, deterrence of rape will be substantially undermined and victims will increasingly lose faith in the criminal justice system's resolution to stop rape. While rapes continue to disappear from official crime statistics, actual incidents of sexual violence continue to plague our society. We simply cannot ignore the hidden crisis any longer.

APPENDIX A: JURISDICTIONS IN STUDY SAMPLE

Police Department	MAD₂ Outlier City-Years	MAD₃ Outlier City-Years
Atlanta, GA	18	18
New Orleans, LA	18	18
Baltimore, MD	18	18
Detroit, MI	18	18
St. Louis, MO	18	18
Richmond, VA	18	18
Birmingham, AL	18	17
Washington Metropolitan, DC	18	17
Newark, NJ	18	17
Baton Rouge, LA	18	16
Inglewood, CA	18	14
Philadelphia, PA	18	14
Richmond, CA	17	15
San Bernardino, CA	17	13
Milwaukee, WI	16	11
Hartford, CT	15	11
Rochester, NY	15	9
Mobile, AL	15	7
Flint City, MI	13	12
Kansas City, MO	13	11
Oakland, CA	13	9
Jackson, MS	13	8
Pittsburgh PA	13	7
Norfolk, VA	12	6
Dallas, TX	12	4
Memphis, TN	11	6
Pomona, CA	11	5
Phoenix, AZ	11	3
Los Angeles, CA	10	2
Columbus, GA	10	1
Paterson, NJ	10	1

Durham, NC	10	1
Little Rock, AR	9	7
Buffalo, NY	9	5
Elizabeth, NJ	9	2
Bridgeport, CT	8	7
Stockton, CA	8	3
Houston, TX	8	2
Montgomery, AL	7	3
Bakersfield, CA	7	0
Jacksonville, FL	7	0
Salinas, CA	6	4
Shreveport, LA	6	4
Dayton, OH	6	4
Norwalk, CA	6	2
San Francisco, CA	6	1
Charleston, SC	5	2
Allentown, PA	4	2
Chattanooga, TN	4	2
Long Beach, CA	4	1
Jersey City, NJ	4	1
Fresno, CA	3	1
Syracuse, NY	3	1
Fayetteville, NC	3	0
Greensboro, NC	3	0
Providence, RI	3	0
Newport News, VA	3	0
Santa Ana, CA	2	1
South Bend, IN	2	1
North Charleston, SC	2	1
Oxnard, CA	2	0
Lafayette, LA	2	0
High Point, NC	2	0
El Monte, CA	1	1
Indianapolis, IN	1	1

Springfield, MA	1	1
Oklahoma City, OK	1	1
Knoxville, TN	1	1
Glendale, AZ	1	0
Glendale, CA	1	0
Sacramento, CA	1	0
Denver, CO	1	0
Pueblo, CO	1	0
Fort Wayne, IN	1	0
Topeka, KS	1	0
Grand Rapids, MI	1	0
Tulsa, OK	1	0
Clarksville, TN	1	0
Nashville-Davidson, TN	1	0
City Of Waco, TX	1	0
Laredo TX	1	0
Odessa, TX	1	0
Hampton, VA	1	0
Huntsville, AL	0	0
Anchorage, AK	0	0
Mesa, AZ	0	0
Scottsdale, AZ	0	0
Tempe, AZ	0	0
Tucson, AZ	0	0
Anaheim, CA	0	0
Berkeley, CA	0	0
Burbank, CA	0	0
Chula Vista, CA	0	0
Concord, CA	0	0
Costa Mesa, CA	0	0
Daly City, CA	0	0
Downey, CA	0	0
El Cajon, CA	0	0
Escondido, CA	0	0

Fairfield, CA	o	o
Fremont, CA	o	o
Fullerton, CA	o	o
Garden Grove, CA	o	o
Hayward, CA	o	o
Huntington Beach, CA	o	o
Irvine, CA	o	o
Lancaster, CA	o	o
Modesto, CA	o	o
Moreno Valley, CA	o	o
Oceanside, CA	o	o
Ontario, CA	o	o
Orange, CA	o	o
Pasadena, CA	o	o
Rancho Cucamonga, CA	o	o
Riverside, CA	o	o
San Diego, CA	o	o
San Jose, CA	o	o
Santa Clara, CA	o	o
Santa Clarita, CA	o	o
Santa Rosa, CA	o	o
Simi Valley, CA	o	o
Sunnyvale, CA	o	o
Thousand Oaks, CA	o	o
Torrance, CA	o	o
Ventura, CA	o	o
Visalia, CA	o	o
West Covina, CA	o	o
Arvada, CO	o	o
Aurora, CO	o	o
Boulder, CO	o	o
Colorado Springs, CO	o	o
Fort Collins, CO	o	o
Lakewood, CO	o	o

Stamford, CT	o	o
Waterbury, CT	o	o
Boise, ID	o	o
Evansville, IN	o	o
Davenport, IA	o	o
Des Moines, IA	o	o
Wichita, KS	o	o
Lexington-Fayette, KY	o	o
Boston, MA	o	o
Cambridge, MA	o	o
Lowell, MA	o	o
Worcester, MA	o	o
Ann Arbor, MI	o	o
Lansing City, MI	o	o
Sterling Heights, MI	o	o
Minneapolis, MN	o	o
St. Paul, MN	o	o
Independence, MO	o	o
Springfield, MO	o	o
Columbia, MO	o	o
Lincoln, NE	o	o
Omaha, NE	o	o
Reno, NV	o	o
Manchester, NH	o	o
Edison Twp, NJ	o	o
Woodbridge, NJ	o	o
Albuquerque, NM	o	o
Amherst Town, NY	o	o
New York City, NY	o	o
Yonkers, NY	o	o
Raleigh, NC	o	o
Winston-Salem, NC	o	o
Fargo, ND	o	o
Cleveland OH	o	o

Columbus, OH	o	o
Toledo, OH	o	o
Norman, OK	o	o
Eugene, OR	o	o
Portland, OR	o	o
Salem, OR	o	o
Erie, PA	o	o
Columbia, SC	o	o
Sioux Falls, SD	o	o
Abilene, TX	o	o
Amarillo, TX	o	o
Arlington, TX	o	o
Austin, TX	o	o
Beaumont, TX	o	o
Brownsville, TX	o	o
Carrollton, TX	o	o
Fort Worth, TX	o	o
Corpus Christi, TX	o	o
Denton, TX	o	o
El Paso, TX	o	o
Garland, TX	o	o
Grand Prairie, TX	o	o
Irving, TX	o	o
Killeen, TX	o	o
Lubbock, TX	o	o
McAllen, TX	o	o
Mesquite, TX	o	o
Midland, TX	o	o
Pasadena, TX	o	o
Plano, TX	o	o
Richardson, TX	o	o
San Antonio, TX	o	o
Wichita Falls, TX	o	o
Provo, UT	o	o

Salt Lake City, UT	o	o
Alexandria, VA	o	o
Virginia Beach, VA	o	o
Bellevue, WA	o	o
Seattle, WA	o	o
Spokane, WA	o	o
Tacoma, WA	o	o
Green Bay, WI	o	o
Madison, WI	o	o