

# ESSAY

## Policing the Police: Personnel Management and Police Misconduct

*Max Schanzenbach\**

*Police misconduct is at the top of the public policy agenda, but there is surprisingly little understanding of how police personnel management policies affect police misconduct. Police-civilian interactions in large jurisdictions are, in principle at least, highly regulated. But these regulations are at least partially counteracted by union contracts and civil service regulations that constrain discipline and other personnel decisions, thereby limiting a city's ability to manage its police force. This Essay analyzes police personnel management by bringing forth evidence from a variety of data sources on police personnel practices as well as integrating an existing, but relatively siloed, literature on police misconduct. The empirical findings that emerge are as follows: (1) policing is a surprisingly secure, well-paid job with little turnover prior to retirement age; (2) inexperienced police officers are, all else equal, more likely to commit misconduct and, at the same time, more likely to receive high-risk assignments; and (3) bad cops are a serious problem, are identifiable, and are rarely removed or disciplined. Taken together, these facts suggest that attempts to regulate police conduct directly or through civil rights litigation are impeded by the inability of those who supervise police to control individual officers through assignments, discipline, and removal. The nexus of compensation, seniority, promotion, discipline, and pension policies that characterize much police personnel management cannot be rationalized under traditional labor and employment contract analysis. Existing compensation*

---

\* Seigle Family Professor of Law, Northwestern University, m-schanzenbach@law.northwestern.edu. The author thanks comments on an early version of this paper from Ronen Avraham, Rachel Harmon, and Abraham Wickelgren and participants in workshops at University of Texas School of Law and Northwestern Pritzker School of law.

*and pension policies could be rationalized, however, if supervisors were empowered to manage police through assignments, penalties, and promotion.*

INTRODUCTION .....	1524
I. POLICE EMPLOYMENT, JOB SECURITY, AND LABOR EARNINGS .....	1530
A. <i>The Institutional Framework of         Public-Sector Employment</i> .....	1531
B. <i>Police Earnings and Employer Tenure</i> .....	1534
1. Police Relative Earnings Discussion .....	1539
2. Employer Tenure .....	1541
C. <i>Police Total Compensation: Nonwage Benefits,         Risk, and Status</i> .....	1542
1. Retirement Benefits .....	1543
2. Officer Risk .....	1545
3. Officer Status .....	1547
D. <i>Conclusion</i> .....	1548
II. EXPERIENCE, ASSIGNMENT, AND MISCONDUCT .....	1548
A. <i>Officer Experience and District Assignment</i> .....	1549
B. <i>Officer Misconduct and Officer Experience</i> .....	1554
C. <i>Conclusion</i> .....	1557
III. THE PROBLEM OFFICER, OR "ROTTEN APPLES," THEORY OF POLICE MISCONDUCT .....	1558
A. <i>Quantitative Evidence on the Relevance of         Problem Officers</i> .....	1559
B. <i>Qualitative Evidence on Problem Officers and         Officer Experience</i> .....	1562
C. <i>Conclusion</i> .....	1567
CONCLUSION .....	1567

## INTRODUCTION

Broadly speaking, there are two sets of regulations that govern police conduct, and they bear little rational connection to each other: (1) the regulation of police-civilian interactions, and (2) the regulation of the police employment relationship. In most large jurisdictions police-civilian interactions are, in principle at least, highly regulated by state law, local ordinances, and detailed police department policy manuals. These regulations are further buttressed by financial incentives provided by federal and state civil rights lawsuits. Judicial orders or consent decrees addressing systemic issues (such as an order

prohibiting a stop-and-frisk policy) are also possible. There is also a rare, but perhaps growing, potential for police officers to face criminal liability. For the most part, the present discourse around police reform among legal, economic, and criminal justice scholars has focused around further regulating police-civilian interactions using these policy levers.

At the same time, police personnel management—including hiring, promotion, unit assignment, salary, and discipline—is highly regulated by union contracts and state civil service laws. These regulations are imposed by forces largely unconcerned with policing (general civil service laws) or the public interest (police union contracts). Civil service statutes often compel collective bargaining, privilege seniority status, and provide restrictions on how government employees may be terminated, demoted, or transferred.<sup>1</sup> Such statutes are not always tailored to policing but rather have general applicability. To the extent that states have specific civil service statutes tailored to policing, they tend to increase employment protections. Twenty states have so-called Law Enforcement Officer Bill of Rights (“LEOBORs”).<sup>2</sup> At the same time, union contract negotiations take place between the union and the city officials, and in states that compel bargaining, an impasse will lead to interest arbitration in which an arbitrator will make choices about the contract. Thus, political actors, on whom the public relies to represent their interests, often have their hands tied. Forty-five states compel or allow collective bargaining with police unions.<sup>3</sup>

By constraining discipline and other personnel decisions, civil service and contractual employment regulations work against the regulations that govern police-civilian interactions. Internal discipline

---

1. See *infra* Part II.A.

2. See Ian Kullgren & Robert Iofalla, *Cities, States Prevail in Early Legal Clashes with Police Unions*, BLOOMBERG L. (Nov. 18, 2020, 5:31AM), <https://news.bloomberglaw.com/daily-labor-report/cities-states-prevail-in-early-legal-clashes-with-police-unions> [<https://perma.cc/HJJ8-JE66>].

3. See MILLA SANES & JOHN SCHMITT, REGULATION OF PUBLIC SECTOR COLLECTIVE BARGAINING IN THE STATES 12–68 (2014), <https://cepr.net/documents/state-public-cb-2014-03.pdf> [<https://perma.cc/TQ54-FC2T>]. This Essay does not directly quantify the extent to which unionization or civil service restrictions increase police misconduct or decrease police efficacy. I am aware of only one paper that tries to quantify the effect of unionization on police conduct, which finds somewhat mixed results of police unions on use of force as an outcome. See Dhammika Dharmapala, Richard H. McAdams & John Rappaport, *Collective Bargaining Rights and Police Misconduct: Evidence from Florida*, J.L. ECON. & ORG. (forthcoming), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3095217](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3095217) [<https://perma.cc/7S4B-BGX4>] (finding an overall increase in use of force when sheriff’s officers were allowed to unionize but no differential effect among sheriff’s officers who were actually covered by a bargaining unit). The authors make careful note that Florida state laws already provided significant protections to officers, making the marginal effect of unionization smaller in the Florida context. *Id.* (manuscript at 8–9).

procedures designed to enforce police department policies rarely result in significant sanctions because they are encumbered by processes mandated under statute or contract.<sup>4</sup> Police officers who cost a city millions in civil damages remain on the force, reducing the efficacy of civil rights lawsuits.<sup>5</sup> Perhaps the starkest example of this policy incoherence comes in the form of hard-won consent decrees resulting from civil rights litigation.<sup>6</sup> Such decrees regularly specify that no current or future union contract or civil service protections are displaced by the decree.<sup>7</sup> In other words, the decree is set aside to the extent it is inconsistent with present or future union contracts or civil service regulations. Moreover, personnel management constraints are relevant beyond their direct impact on discipline but have broader implications for police efficacy. For example, seniority preferences created by contract or regulation limit the ability of police supervisors to create a proper mix of experienced and inexperienced officers within units or assignments, particularly in high-crime areas.

---

4. A recent review of complaints in Philadelphia found a sustained rate of less than 2% for complaints based on excessive force and differences in the sustained rate for all complaints based on the racial identity of the complainant, with Black and Hispanic complainants having their complaints sustained at lower rates than Whites. Emily Owens & Bocar Ba, *The Economics of Policing and Public Safety*, 35 J. ECON. PERSPS. 3, 8–10 (2021). A broader review of sustained rates also found low sustained rates in most cities, particularly for excessive force. See MATTHEW J. HICKMAN, BUREAU OF JUSTICE STATISTICS SPECIAL REPORT: CITIZEN COMPLAINTS ABOUT POLICE USE OF FORCE (June 2006), <https://www.bjs.gov/content/pub/pdf/ccpuf.pdf> [<https://perma.cc/736C-CND5>].

5. See Keith L. Alexander, Steven Rich & Hannah Thacker, *The Hidden Billion-Dollar Cost of Repeated Police Misconduct*, WASH. POST (Mar. 9, 2022), <https://www.washingtonpost.com/investigations/interactive/2022/police-misconduct-repeated-settlements/> [<https://perma.cc/W4ZU-2EM4>] (finding that 1,200 officers had five or more settlement payouts after analyzing data collected from the nation's 25 largest police and sheriff departments).

6. These consent decrees are authorized under 34 U.S.C. § 12601.

7. See Stephen Rushin, *Police Union Contracts*, 66 DUKE L.J. 1191, 1228, 1243 (2017) (stating that police union contracts frequently frustrate consent decrees and consequently may be an “underappreciated barrier to police reform”); Adeshina Emmanuel, *How Union Contracts Shield Police Departments from DOJ Reforms*, IN THESE TIMES (June 21, 2016), <https://inthesetimes.com/features/police-killings-union-contracts.html> [<https://perma.cc/6XFG-BCKC>] (discussing cities in which DOJ consent decree efforts were hampered because “police [union] contract protections appear to have weakened or stalled efforts to improve the handling of police misconduct, create or extend civilian oversight, and establish early-warning systems for problem cops”). For an example of boilerplate language, see the consent decree in *State v. City of Chicago*, No. 17-cv-6260, 2018 WL 3920816, at \*4 (N.D. Ill. Aug. 16, 2018):

Nothing in this Consent Decree is intended to (a) alter any of the CBAs [collective bargaining agreements] between the City and the Unions; or (b) impair or conflict with the collective bargaining rights of employees in those units under the IPLRA [Illinois Public Labor Relations Act]. Nothing in this Consent Decree shall be interpreted as obligating the City or the Unions to violate (i) the terms of the CBAs, including any Successor CBAs resulting from the negotiation process . . . mandated by the IPLRA . . . .

(alteration in original).

The goal of this Essay is to create an empirical foundation regarding police personnel management and the potential it holds for reform efforts. I have chosen to focus on three main areas that I believe are related and at present understudied: (1) police employment conditions, particularly compensation, employer tenure, and job security relative to other jobs; (2) the relationship between police officer experience, police officer assignments, and misconduct; and (3) the relevance of the so-called “problem officer” or “rotten apple.”

First, using large, nationally representative public data sets, I establish that police enjoy significant wage premiums and have among the highest levels of employer tenure of any occupational category. These factors exist in combination with relatively early retirement options available to police officers and generous pension benefits that are harder to quantify but further increase total police compensation. The wage premiums do not appear to be explained by greater risk attendant to policing.

Second, I consider the relationship between officer misconduct and officer experience in the city of Chicago. I establish that, all else equal, police misconduct falls over the course of an officer’s career, but that more experienced officers are nonetheless assigned to safer, lower crime districts. Although the evidence on police assignment is limited to Chicago, seniority rules that result in such assignments are a common feature of police union contracts, suggesting Chicago’s circumstances are likely true in other major cities in which state statutes impose mandatory bargaining or civil service statutes privilege seniority.<sup>8</sup>

Finally, I assess evidence from a number of large cities on the prevalence of so-called “problem officers” or “rotten apples.” I conclude that problem officers are a well-known and well-established phenomenon in policing, and a qualitative analysis of high-profile incidents suggests problem officers represent an outsized share of high-profile incidents of misconduct. This hardly means that problem officers are the only (or even main) problem of policing. But many high-profile incidents were caused by officers who either lacked experience, had significant misconduct records, or both.

The facts that emerge from the varied empirical analyses are as follows: policing is a surprisingly secure, well-paid job with little turnover prior to retirement age; inexperienced police officers are, all else equal, more likely to commit misconduct and, at the same time, more likely to receive high-risk assignments; and bad cops are a serious problem, are identifiable, and are rarely removed or disciplined. These

---

8. See *infra* Part III.A.

results build toward the construction of a set of important stylized facts about policing in the United States and point to highly constrained police personnel management as a critical area of reform.<sup>9</sup> In short, the evidence presented here indicates that the systems imposed by union contracts and civil service laws have created a police force that has high pay and low turnover but is hard to manage.

The Conclusion considers the implications of these findings in the context of personnel management via an internal labor market. The nexus of compensation, seniority, promotion, discipline, and pension policies that characterize much police personnel management cannot be rationalized under traditional labor and employment contract analysis. However, these policies can be rationalized if employees face penalties for poor performance either in terms of promotion or discharge, a rigorous prescreening program, or (ideally) both. For example, an employment agreement that both pays a wage premium and has backloaded compensation in the form of pensions can be justified on the grounds that it creates incentives for employers to train and invest in employees, while providing employees with greater incentives to avoid termination. But this approach requires that termination or other employment sanctions, such as reduced promotion chances or suspensions, are possible—something civil service statutes and union contracts make highly unlikely.

The results do not by themselves provide evidence of direct racial or other discrimination by police but have relevance for discussions of systemic racism in policing. Constraints to police management will disparately impact poor and minority communities in a variety of ways. For example, a facially neutral seniority assignment policy will disproportionately place inexperienced officers in riskier assignments, leading to more misconduct and lower efficacy in those neighborhoods. To be sure, I do not claim that the analysis of police personnel presented here is exhaustive, and there are other potentially important empirical findings that could arguably be classified as stylized facts that bear more directly on racialized policing. But to the extent local governments

---

9. In the social sciences, this Essay's findings would be best described as *stylized facts*. The term *stylized fact* is often used in the social sciences to identify empirical regularities around which models and policies are targeted. For example, in macroeconomics, macroeconomic models and policy interventions are frequently designed so as to account for empirical regularities. See, e.g., William Easterly & Ross Levine, *What Have We Learned from a Decade of Empirical Research on Growth? It's Not Factor Accumulation: Stylized Facts and Growth Models*, 15 WORLD BANK ECON. REV. 177, 178–81 (2001) (discussing whether various macroeconomic models fit stylized facts). The term is increasingly used more broadly in the social sciences to provide focal points for discussion and theoretical modelling. See Daniel Hirschman, *Stylized Facts in the Social Sciences*, 3 SOCIO. SCI. 604, 608–10 (2016) (reporting the increasing number of articles in the social sciences using or producing stylized facts).

wish to address direct discrimination by race, the systems of monitoring and incentivizing good behavior will be highly relevant. For example, there is growing evidence that White police officers are more likely to arrest and use force against Black persons on the basis of race.<sup>10</sup> Another emerging fact is that police officers in the United States are too ready to use deadly force against persons of all races, with marginalized groups being (at the very least) disproportionately affected.<sup>11</sup>

Within the legal literature, much of the focus on policing has been pointed toward constitutional or procedural issues.<sup>12</sup> But there are some important contributions discussing policing as a regulatory problem. Frank Zimring, in a masterful account of killings by police, suggests that regulations can be adopted that would greatly reduce the number of police killings.<sup>13</sup> Zimring's work focused on use of force and training standards, which can no doubt be impactful and are often not subject to collective bargaining or civil service regulations. However, Zimring did not address how police unions and civil service laws can limit the efficacy of the regulations that he advocates.<sup>14</sup> Rachel Harmon, in a seminal paper, criticized the legal literature's focus on constitutional analysis to control the police and instead argued that policing is foremost a regulatory problem, suggesting that reforms should focus on whether arrests, stop-and-frisks, and use of force standards pass a cost-benefit analysis.<sup>15</sup> Harmon also pointed out the limitations posed by civil service laws and union contracts and how they

10. See, e.g., Mark Hoekstra & CarlyWill Sloan, *Does Race Matter for Police Use of Force? Evidence From 911 Calls* (Nat'l Bureau of Econ. Rsch., Working Paper No. 26774, 2020), [https://www.nber.org/system/files/working\\_papers/w26774/w26774.pdf](https://www.nber.org/system/files/working_papers/w26774/w26774.pdf) [<https://perma.cc/WHV8-BCHL>] (using plausibly random assignment of responding officers by 911 calls and finding White officers are more likely to engage in use of force and arrest Black subjects); Roland G. Fryer Jr., *An Empirical Analysis of Racial Differences in Police Use of Force*, 127 J. POL. ECON. 1210 (2019) (finding an unexplained racial disparity in use of force, but not deadly use of force). *But see* Steven N. Durlauf & James J. Heckman, *An Empirical Analysis of Racial Differences in Police Use of Force: A Comment*, 128 J. POL. ECON. 3998 (2020) (challenging some of the methodology in Fryer's analysis).

11. See generally FRANKLIN E. ZIMRING, *WHEN POLICE KILL* (2017); U.S. COMM'N ON C.R., *POLICE USE OF FORCE: AN EXAMINATION OF MODERN POLICING PRACTICES* 23 (2015), <https://www.usccr.gov/files/pubs/2018/11-15-Police-Force.pdf> [<https://perma.cc/C7HC-LDTM>].

12. For a review and critique of this lacuna in the legal literature, see Rachel A. Harmon, *The Problem of Policing*, 110 MICH. L. REV. 761, 816–17 (2012).

13. See ZIMRING, *supra* note 11; see also NAT'L RSCH. COUNCIL, *FAIRNESS AND EFFECTIVENESS IN POLICING: THE EVIDENCE* 158 (Wesley G. Skogan & Kathleen Frydl eds., 2003).

14. See Stephen Rushin, *A Response to When Police Kill*, 23 BERKELEY J. CRIM. L. 96, 97 (2018).

15. See Harmon, *supra* note 12, at 817; see also Seth W. Stoughton, *The Incidental Regulation of Policing*, 98 MINN. L. REV. 2179, 2205–17 (2014) (discussing in broad terms the effect of labor laws and collective bargaining on policing).

interfere with police management and potential reforms.<sup>16</sup> In several papers, Stephen Rushin has catalogued the various impediments to discipline and monitoring that police union contracts have created.<sup>17</sup> This Essay adds to the study of policing by introducing empirical evidence on police pay, tenure, misconduct, and experience, and tying that evidence to a general framework of personnel-management economics.<sup>18</sup>

The rest of this Essay is organized as follows: Part I explores wages, job tenure, and retirement; Part II explores experience, misconduct, and assignment; Part III summarizes studies concerning so-called problem officers and qualitatively examines some high-profile cases; and the Conclusion discusses the potential for personnel management to improve policing in light of the results.

## I. POLICE EMPLOYMENT, JOB SECURITY, AND LABOR EARNINGS

Examining the pay and employment tenure of police officers produced by the web of civil service and union laws is an important component of understanding the incentives and career paths under which police officers function. The empirical analysis in this Part compares police pay and employment tenure to that of private-sector workers and state and local workers who are not police, controlling for a variety of other relevant factors in a regression. It is helpful to compare police to those in both the private and public sectors separately. The collective bargaining and employment protections afforded to state and local workers are more comparable to those afforded police than those of workers in the private sector. On the other hand, if workers choose between sectors, measuring compensation and job security relative to the private sector is also informative.<sup>19</sup> The data

---

16. Harmon, *supra* note 12, at 796 (“In a majority of states . . . civil service laws heavily regulate recruiting, promoting, transferring, demoting, and terminating public employees, including police officers.”).

17. See, e.g., Rushin, *supra* note 7, at 1191; Stephen Rushin, *Police Disciplinary Appeals*, 167 U. PA. L. REV. 545 (2019).

18. A large literature from criminal justice studies, sociology, and economics tackles various aspects of police misconduct, although police unions and civil service restraints have, until very recently, largely been left out of that discussion. See, e.g., Samuel Walker, *The Neglect of Police Unions: Exploring One of the Most Important Areas of American Policing*, 9 POLICE PRAC. & RSCH. 95, 95 (2008) (pointing out that a 2004 National Academy of Sciences review of police fairness and effectiveness had only one mention of police unions and “[t]he nature and impact of police unions in the USA is a seriously neglected area of research in the field of police studies.”).

19. I am aware of only one other paper that systematically compares police salaries. See Owens & Ba, *supra* note 4. In that piece, the authors compare average monthly salaries across different public-sector job categories and find that police and firefighters have higher average salaries than other public-sector workers, such as instructional staff at public schools, by over \$1,500 per month as of 2016. See *id.* at 7 fig.1B.



used come from large-scale and widely used U.S. government administered surveys: the American Community Survey (“ACS”) and the Current Population Survey (“CPS”).

Prior work has already established regularities in police union contracts and civil service statutes, three of which cast important light on the forthcoming empirical analysis: (1) it is generally difficult to fire or discipline a police officer due to union contract and civil service restraints;<sup>20</sup> (2) seniority is weighted heavily in officer assignment and promotion;<sup>21</sup> and (3) retirement occurs between twenty and twenty-five years of service and pensions usually replace about one-half of pay.<sup>22</sup> The goal of this Part is to quantify the effect of some of these factors on two key areas of employment: employee pay and employee tenure.

This Part first examines the institutional framework of public-sector pay and tenure (Part I.A) before discussing the empirical results on police pay and employment tenure (Part I.B), and next considers other factors, such as risk and social status (Part I.C), that may act as countervailing forces to police pay and tenure benefits.

### *A. The Institutional Framework of Public-Sector Employment*

Generally speaking, public-sector personnel management is characterized by rigid compensation and promotion structures, largely determined by civil service statutes and regulations, and often further overlaid by collective bargaining agreements. A 2006 survey of state laws concluded that thirty-four states have comprehensive merit systems that cover almost all employees.<sup>23</sup> Civil service systems typically subject employee discipline to significant administrative process, govern promotion decisions, limit hiring discretion, and regulate wages. In most places, the civil service system has evolved into

---

20. See Rushin, *supra* note 17, at 1222–24 (collecting and summarizing police union contracts from 178 cities, and concluding that a substantial number of these agreements limit officer interrogations after alleged misconduct, mandate the destruction of disciplinary records, ban civilian oversight, prevent anonymous civilian complaints, indemnify officers in the event of civil suits, and limit the length of internal investigations); Peter Feuille, John Thomas Delaney & Wallace Hendricks, *The Impact of Interest Arbitration on Police Contracts*, 24 INDUS. RELS. 161 (1985) (collecting 1,631 police union contracts in the early 1980s and concluding that arbitration provisions in state law typically led to stronger police protections). There are some specific limitations that police unions face regarding topics of bargaining, which for some states exclude use of force standards or staffing levels from topics of negotiation.

21. See Walker, *supra* note 18, at 100 (stating that police union contracts “typically require that officers be assigned on the basis of seniority” and citing survey evidence that police chiefs view assignment restrictions as a problem).

22. See ALICIA H. MUNNELL, STATE AND LOCAL PENSIONS: WHAT NOW? 30–31 (2012) (relying on a database of state and local pension plans).

23. See ABC-CLIO, THE EXECUTIVE BRANCH OF STATE GOVERNMENT: PEOPLE, PROCESS, AND POLITICS (Margaret R. Ferguson ed., 2006).

a complex seniority promotion and pay system.<sup>24</sup> Union contracts act as further constraints. As of 2020, 45% of local employees and 33% of state employees in the United States were covered by collective bargaining agreements, compared to 7.2% of workers in the private sector.<sup>25</sup>

There is a consensus view that state and local workers in the United States face a pay penalty between 6% and 12% relative to similarly situated private-sector workers,<sup>26</sup> while enjoying greater benefits, better job security, longer employer tenure, and earlier retirement.<sup>27</sup> While some have argued that public-sector workers are underpaid, generous benefits offset at least a portion of the lower pay, and some papers suggest that the total public-sector wage-benefits package is in fact overly generous.<sup>28</sup> Moreover, for workers with less than a college degree, the public sector pays at least as well as the private sector, and total compensation is probably higher in the public sector for these workers.<sup>29</sup> Thus, a direct interpretation of regression results on pay disparities is limited by the potential existence of important unobserved factors that could explain such disparities.

24. See RICHARD C. KEARNEY & PATRICE M. MARESCAL, *LABOR RELATIONS IN THE PUBLIC SECTOR* 188 (5th ed. 2014); Patricia W. Ingraham, *Evolving Public Service Systems*, in *HANDBOOK OF PUBLIC ADMINISTRATION* 377 (James L. Perry ed., 2d ed. 1996).

25. See *Union Membership (Annual) News Release*, U.S. BUREAU OF LAB. STAT., tbl.3 (Jan. 22, 2021, 10:00 AM), [https://www.bls.gov/news.release/archives/union2\\_01222021.htm](https://www.bls.gov/news.release/archives/union2_01222021.htm) [<https://perma.cc/AA7E-RQ9R>].

26. See MUNNELL, *supra* note 22, at 145. *But see* Maury Gittleman & Brooks Pierce, *Compensation for State and Local Government Workers*, 26 J. ECON. PERSPS. 217 (2012) (relying on administrative data instead of survey data and finding that state and local workers have slightly higher wages than comparable private-sector workers).

27. See MUNNELL, *supra* note 22, at 145–54 for a survey of the literature.

28. Some of the literature tries to address the value of benefits as well, which is thought to favor public-sector employees. Allegretto and Keefe use the Employer Cost of Employee Compensation (“ECEC”) survey to adjust for benefits and conclude that benefits do not fully offset the pay penalty. See Sylvia A. Allegretto & Jeffrey Keefe, *The Truth about Public Employees in California: They Are Neither Overpaid nor Overcompensated*, INST. FOR RSCH. ON LAB. & EMP. AT THE UNIV. OF CAL., BERKELEY 8–9 (Oct. 2010), [https://www.researchgate.net/publication/228945041\\_The\\_Truth\\_About\\_Public\\_Employees\\_in\\_California\\_They\\_are\\_Neither\\_Overpaid\\_nor\\_Overcompensated](https://www.researchgate.net/publication/228945041_The_Truth_About_Public_Employees_in_California_They_are_Neither_Overpaid_nor_Overcompensated) [<https://perma.cc/KJ7N-7GHE>]; Jeffrey Keefe, *Debunking the Myth of the Overcompensated Public Employee*, ECON. POL’Y INST. 1–2 (Sept. 15, 2010), <https://files.epi.org/page/-/pdf/bp276.pdf> [<https://perma.cc/XU3D-WHX3>]. But others critique this approach for not adequately valuing pensions or retiree health insurance. Because public-sector pensions are defined benefits and are index-linked, comparability to 401(k) plans requires significant adjustments. Moreover, because employers do not typically prepay for retiree health care, that significant benefit is consequently missing from the ECEC. Underfunding of pension obligations would also reduce ECEC benefit estimates because the cost to the employer is significantly understated. For a discussion, see MUNNELL, *supra* note 22, at 139–69; JASON RICHWINE & ANDREW G. BIGGS, *ARE CALIFORNIA PUBLIC EMPLOYEES OVERPAID?* (2011), <https://www.heritage.org/jobs-and-labor/report/are-california-public-employees-overpaid> [<https://perma.cc/Y55B-HYLD>].

29. See Max M. Schanzenbach, *Explaining the Public-Sector Pay Gap: The Role of Skill and College Major*, 9 J. HUM. CAP. 1 (2015).

Greater nonpay compensation, not accounted for in the regressions, could mean that public sector pay is understated. But there can be countervailing factors too. For example, in the case of policing, the risk of bodily harm faced by police could help explain greater police pay observed in a pay regression that does not account for such risks. While not definitively ruling out the importance of unobservables, the nonpay benefits and costs of policing as a career will be assessed as well.

Relative to other state and local employees, police civil service protections and union contracts are even stronger. Twenty states have LEOBORs that give police additional protections over and above those of the regular civil service statutes.<sup>30</sup> Of those, fourteen contain provisions that create additional employment protections for police during investigations into police misconduct, including regulation of the disciplinary process, constraints on civilian oversight, limitations on how long misconduct may stay on personnel records, and requirements that civilian complaints, with narrow exceptions, can be pursued only if supported by sworn testimony.<sup>31</sup> Other states, though lacking a formal LEOBOR, may nonetheless have similar provisions in city ordinances, union contracts, or general civil service regulations.<sup>32</sup> Even when states have moved to reform civil service laws, they have at times exempted police from reduced civil service protections, pension reforms, or collective bargaining limits.<sup>33</sup>

This favorable treatment is consistent with the political power of the police as a well-organized interest group. Even relative to public-sector workers, unionization rates of police are quite high. According to one survey, 80% of police in the United States are members of a union,<sup>34</sup> and about 66% of police are covered by a union contract.<sup>35</sup> Based on my

30. See Kullgren & Iofalla, *supra* note 2.

31. See Kevin M. Keenan & Samuel Walker, *An Impediment to Police Accountability? An Analysis of Statutory Law Enforcement Officers' Bills of Rights*, 14 B.U. PUB. INT. L.J. 185 (2005). There are other states with LEOBORs that lack these features.

32. New York, for example, does not have a LEOBOR but has a highly regulated process for disciplining civil servants, including police. See, e.g., N.Y. STATE DEP'T OF CIV. SERV., MANUAL OF PROCEDURE IN DISCIPLINARY ACTIONS (2003), [http://www.ongov.net/employment/documents/manual\\_of\\_procedures\\_in\\_disciplinary\\_actions\\_04\\_08.pdf](http://www.ongov.net/employment/documents/manual_of_procedures_in_disciplinary_actions_04_08.pdf) [<https://perma.cc/4ZM4-AEYW>] (creating policies and procedures for disciplining civil servants, including police, but also noting exceptions for police).

33. See Daniel DiSalvo, *The Trouble with Police Unions*, 45 NAT'L AFFS. 24, 25 (2020), <https://www.nationalaffairs.com/publications/detail/the-trouble-with-police-unions> [<https://perma.cc/YDN3-QPWU>] (discussing how police were not covered by otherwise broad civil service reforms in Iowa and Wisconsin).

34. See RON DELORD & RON YORK, LAW ENFORCEMENT, POLICE UNIONS, AND THE FUTURE: EDUCATING POLICE MANAGEMENT AND UNIONS ABOUT THE CHALLENGES AHEAD 179 (2017).

35. See BRIAN A. REAVES, BUREAU OF JUST. STAT., LOCAL POLICE DEPARTMENTS, 2007, at 13, <http://bjs.gov/content/pub/pdf/lpd07.pdf> (last updated June 22, 2011) [<https://perma.cc/XM4U-55UH>] (finding that 66% of officers are employed by departments that bargain collectively).

own calculations from the CPS January supplement on union membership, between 2002 and 2018, 61% of police officers report police union contract coverage, and this rose to 79% in large metro areas.<sup>36</sup> Although police in almost all states lack the power to strike, bargaining to an impasse will result in interest arbitration, which has historically been advantageous to the police.

### *B. Police Earnings and Employer Tenure*

To analyze police compensation and job security, I assess police earnings, employer tenure, and the risk of unemployment and job separation relative to (1) the private sector and (2) other jobs in state and local government. Table 1 reports these basic results. The first three columns report simple averages (summary statistics) across these different employment sectors. The next two columns (discussed in greater detail below) report results from regressions that condition on dummies for age, metropolitan area status, sex, race, marital status, state dummies, year of survey dummies, and a set of dummy variables for usual hours worked. The coefficients reported in these regressions should be interpreted as the unexplained disparities in police compensation and job security relative to private-sector employees and nonpolice employees in state and local government. For the earnings and job tenure comparisons, only workers who report full-time, year-round employment are included. Throughout, police are defined as patrol officers,<sup>37</sup> detectives, and police supervisors; state and local workers are those employed by state and local governments excluding the police; and private-sector workers exclude the self-employed.

Earnings data come from the ACS from 2016 to 2019.<sup>38</sup> This large-sample survey asks respondents for annual earned income, which can include multiple jobs and overtime. I use annual earnings, as opposed to wages or earnings from the primary job, in part because police can earn significant amounts from overtime and, in some jurisdictions, from moonlighting as security officers.<sup>39</sup> Employer tenure

---

36. However, these figures do not fully represent union strength. One can be a member of a union but not covered by a contract if the local government has opted not to negotiate as local governments can in some states. And one can be covered by a union contract but not a member of a union.

37. This definition includes transit patrol officers.

38. U.S. CENSUS BUREAU, *American Community Survey (ACS)* (2016–2019), accessed via Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren & Michael Westberry, *IPUMS USA: Version 12.0*, U. OF MINN. (2022), <https://usa.ipums.org/usa-action/variables/group> [<https://perma.cc/ANY2-J7NV>] (offering customizable datasets based on the ACS).

39. See Seth W. Stoughton, *Moonlighting: The Private Employment of Off-Duty Officers*, 2017 U. ILL. L. REV. 1847, 1851, 1862–64 (finding from a departmental survey that moonlighting is

and job separation risk is assessed using the CPS's biannual January supplemental survey on displaced workers from 2002 to 2018.<sup>40</sup> Employer tenure is defined as the years spent with the current employer, and displacement is defined as an involuntary departure due to a layoff or establishment closure within the last three years (as opposed to voluntary separation or for-cause termination). Both measures are widely used in the labor economics literature to assess trends on employment tenure and job security, with most work focusing on average tenure and the probability of short tenure as measures of employment stability.<sup>41</sup> Finally, the CPS's Annual Social and Economic Supplement (2002–2018) is used to calculate unemployment rates.<sup>42</sup>

---

widespread, with 80% of departments responding to a survey reporting that they allow private employment by officers and that roughly 43% of officers in responding departments moonlighted in 2014).

40. U.S. CENSUS BUREAU, *Current Population Survey—Displaced Worker Survey (CPS-DWS)* (2002–2018), accessed via Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren & Michael Westberry, *Integrated Public Use Microdata Series, Current Population Survey: Version 9.0 [dataset]*, U. OF MINN. (2022), <https://cps.ipums.org/cps-action/variables/group>, [https://perma.cc/8PSB-JNF4] (offering customizable datasets based on the CPS-DWS).

41. See Henry S. Farber, *Job Loss and the Decline in Job Security in the United States*, in *LABOR IN THE NEW ECONOMY* 223, 225–29 (Katharine G. Abraham, James R. Spletzer & Michael J. Harper, eds., 2010) (discussing the Displaced Worker Survey, collecting articles, and making his own assessments).

42. U.S. CENSUS BUREAU, *Current Population Survey—Annual Social and Economic Supplement (CPS-ASEC)* (2002–2018), accessed via Sarah Flood, Miriam King, Renae Rodgers, Steven Ruggles, J. Robert Warren & Michael Westberry, *Integrated Public Use Microdata Series, Current Population Survey: Version 9.0 [dataset]*, U. OF MINN. (2022), <https://cps.ipums.org/cps-action/variables/group>, [https://perma.cc/8PSB-JNF4] (offering customizable datasets based on the CPS-ASEC).

TABLE 1: COMPENSATION AND JOB SECURITY OF PRIVATE-SECTOR WORKERS, STATE & LOCAL GOVERNMENT WORKERS, AND POLICE OFFICERS\*\*

	Summary Statistics (Mean or proportion)			Percent Difference or Odds Ratio (Regression Controls)	
	(1) Private	(2) State/ Local (no police)	(3) Police	(4) Police- Private	(5) Police-State/ Local
<b><i>Source: ACS 2014-2018</i></b>					
<b>Earnings</b>	\$68,629 (68,629)	\$58,572 (58,613)	\$73,918 (73,970)	15.5% (3.00)	26.0% (1.68)
<b>Sample size</b>	2,923,520	508,680	34,315		
<b><i>Source: January CPS 2002-2018</i></b>					
<b>Employer Tenure (years)</b>	7.37 (7.31)	9.79 (9.75)	11.55 (11.48)	74.2% (2.25)	40.0% (1.80)
<b>Sample size</b>	252,713	53,446	2,682		
<b>Displaced Worker</b>	0.058 (0.22)	0.0146 (0.012)	0.0037 (0.060)	-84.0% (4.23)	-81.5% (8.27)
<b>Sample size</b>	315,480	52,516	2,654		
<b><i>Source: ASEC-CPS 2009-2020</i></b>					
<b>Unemployed</b>	0.059 (0.23)	0.021 (0.14)	0.0087 (0.091)	-86.7% (2.50)	-65.0% (6.60)
<b>Unemployed, job leavers</b>	0.032 (0.175)	0.0091 (0.095)	0.0041 (0.064)	-87.8% (2.29)	-61.8% (9.78)
<b>Sample size</b>	589,993	102,464	5,398		

\*\* Sig at <0.01 level; standard errors in parentheses. ACS is from 2014 to 2018 for those who report working more than 40 weeks per year and more than 38 hours in an average week (fulltime) for pay. Self-employed workers and those who work for nonprofits are excluded from the analysis. January CPS variables are based on the biannual January CPS displaced worker and job tenure supplement from 2002 through 2018. Recommended sampling weights used throughout. Displaced Worker encompasses those who are long-term unemployed due to layoffs and does not include for-cause dismissals or voluntary departures. Employer Tenure is number of years with current employer. Displaced Worker is defined as a worker who was involuntarily displaced due to layoffs or closure of a business within the last three years. Unemployed are those unemployed as defined in the Annual Social and Economic Supplement ("ASEC") of the CPS 2009 through 2020, which requires workers have looked for work in the last month or are on layoff awaiting recall. Unemployed, job leavers are those who report having left work or report being out of work for reasons other than a layoff or closure. All regressions in columns 4 and 5 include dummies for each year of age, metropolitan area status, sex, race, marital status, and state dummy variables. Earnings regressions additionally control for a set of dummy variables for usual hours worked. Stata do-files and data available upon request from author. For displaced and

unemployed workers, occupation was defined as that of the job from which the respondent was lost or displaced. Police are defined as the occupational categories police, detectives, transit police, and police supervisors who report being employed by the state or local governments.

Table 2 further divides the data by education level and state collective bargaining and LEOBOR status and then reestimates the private sector-police disparities for earnings and pay reported in Table 1. The comparison in this table is between police and private-sector workers because collective bargaining laws tend to be similar across all public-sector workers within a state. There are thirty-four states that have mandatory collective bargaining, eleven states that have permissive bargaining (meaning that local governments can opt to bargain), and five states that prohibit bargaining.<sup>43</sup> In addition, there are fourteen states that have enacted LEOBORs that have restrictions on investigations of police officer conduct.<sup>44</sup> The regressions are run separately on each of these different groups of states so that the police-private sector wage and tenure disparities can be compared across groups of states and educational status. Table 2 does not include regressions on job separation and unemployment because dividing across states, especially for unemployment probabilities that are very low, yields little power so such an analysis was not informative (i.e., the standard errors were large). The next two Subsections delve into the earnings and job security results respectively in greater detail.

---

43. SANES & SCHMITT, *supra* note 3, at 4.

44. Keenan & Walker, *supra* note 31, at 185 n.1. Note that Virginia has enacted a LEOBOR but prohibited collective bargaining during the time frame of this study. *See id.*; SANES & SCHMITT, *supra* note 3, at 4. Beginning in 2021, Virginia law permits localities to choose to collectively bargain with police officers and other local employees, though the law's durability is in question given the recent political shift in Virginia. *See* Chris Marr, *Pro-Worker Laws Targeted for Rollback in Virginia Regime Change*, BLOOMBERG L. (Jan. 12, 2022, 5:30AM), <https://news.bloomberglaw.com/daily-labor-report/pro-worker-laws-targeted-for-rollback-in-virginia-regime-change> [<https://perma.cc/EJ4J-9JGJ>].

TABLE 2: POLICE-PRIVATE SECTOR COMPENSATION AND TENURE  
DIFFERENTIALS BY EDUCATION AND STATE COLLECTIVE  
BARGAINING RULES\*\*

	(1) Earnings	(2) Employer Tenure
<b><u>Educational Attainment</u></b>		
College	8.14% (2.33)	73.6% (3.81)
Sample size	1,217,258	86,621
Less than College	28.5% (3.76)	74.2% (2.36)
Sample size	1,740,577	168,571
<b><u>State Union Bargain Rules</u></b>		
LEOBOR	21.7% (0.99)	81.2% (3.13)
Sample size	998,202	79,744
Mandatory Bargaining	21.3% (2.80)	75.0% (2.98)
Sample size	2,077,820	185,435
Permissive Bargaining	6.93% (2.30)	72.1% (3.55)
Sample size	513,486	47,217
Bargaining Prohibited	-3.04% (1.97)	73.5% (34.89)
Sample size	366,529	22,540

\*\* Sig at <0.01 level; standard errors in parentheses. Earnings data is from the ACS, and Employer Tenure data is from CPS as described in Table 1. Recommended sampling weights used throughout. Regression controls for those with college education include controls for 37 degree of study categories (college major), but regression controls are otherwise the same as in Table 1. Permissive bargaining states are Alabama, Arizona, Arkansas, Colorado, Idaho, Mississippi, North Dakota, Oklahoma, Texas, West Virginia, and Wyoming. Bargaining prohibited states are Georgia, North Carolina, South Carolina, Tennessee, and Virginia. All others require mandatory bargaining with a police union. These categorizations are based on *Regulation of Public Collective Bargaining in the States*.<sup>45</sup> LEOBOR states are defined as those states with laws that create law enforcement officer due process rights during misconduct investigations or hearings: California, Delaware, Florida, Illinois, Kentucky, Louisiana, Maryland, Minnesota, Nevada, New Mexico, Rhode Island, Virginia, West Virginia, and Wisconsin.<sup>46</sup>

45. SANES & SCHMITT, *supra* note 3, at 12–68.

46. See Keenan & Walker, *supra* note 31, at 185 n.1.



## 1. Police Relative Earnings Discussion

Police officers earn on average almost \$74,000 per year in the United States, which is over \$5,000 more than the average private-sector worker and over \$15,000 more than the average public-sector worker, translating to 9% and 26% unadjusted earnings premiums respectively (Columns 1 through 3 of Table 1). Columns 4 and 5 of Table 1 add regression controls to the police-private and police-state and local comparisons. The large average police earnings premiums are not much affected by the addition of regression controls, increasing to 15.5% compared to private-sector workers and not appreciably changing for those in the public sector.<sup>47</sup>

To provide more context, Table 2 presents results by further dividing the data into college and noncollege educated as well as by collective bargaining laws. Treating all college educations and degrees as fungible is not valid. In particular, police are not drawn from STEM majors or other highly remunerative degrees.<sup>48</sup> Thus, the regressions limited to those with college degrees include controls for thirty-seven college majors. For workers with a college degree or more, police compensation is about 8% higher than that of other private workers conditional on college major,<sup>49</sup> while the police-private sector earnings premium for those with high school degrees is almost 29%. The difference in the police-private earnings premium between college and noncollege educated police is statistically significant, even if both groups enjoy an earnings premium.

Table 2 also demonstrates that the police-private sector pay differential is different by state collective bargaining regimes. In states that compel collective bargaining, the police pay premium is the highest, at 22%. Roughly the same results hold true in states with LEOBORs. In states that allow, but do not compel, collective bargaining, the pay premium is 6.9%. By contrast, in states that prohibit collective bargaining, there is no statistically significant

---

47. In unreported regressions, I limited the data to those who hold bachelor's degrees and do not control for college major. In that case, there is no earnings disparity between police and private-sector workers. In a regression with bachelor's degree holders only, police earned 1% more relative to private-sector workers and this difference was not statistically significant. In the data, about 31% of police officers have college degrees.

48. Based on my calculation from the ACS data, the top three degrees for police officers are criminal justice (40%), business (13%), and social sciences (12%). The majority of criminal justice majors, however, are not employed as police officers or in the public sector, so there is sufficient common support with the degree to identify the earnings differential.

49. If one does not control for college degree, the coefficient on police was a -2.5 with a standard error of 2.5 yielding a 95% confidence interval of -7.5% to 2.5%. In other words, absent controls for college degree, there is no earnings difference between college-educated police and private-sector workers.

difference in police-private sector pay. The differences across these groups of states are statistically significant. In other words, the police pay premium is statistically significantly higher in mandatory bargaining states relative to permissive bargaining states and statistically significantly higher in permissive bargaining states relative to bargaining prohibited states. Because few states meaningfully changed their collective bargaining rules for police during this time period, we cannot implement a differences-in-differences approach as would be generally favored in assessing a causal effect of collective bargaining on pay. Existing evidence on collective bargaining in police departments or the public sector generally, however, does suggest that collective bargaining substantially increases police compensation.<sup>50</sup> We can at least conclude that the police-private sector pay differential is either influenced by collective bargaining laws or by state-specific factors highly correlated with collective bargaining laws.

Despite anecdotes presented in the media that police officers are underpaid,<sup>51</sup> the results here at least demonstrate that there is no *prima facie* case that this is true in general. Police enjoy an earnings premium, even in comparison to private-sector workers. Indeed, the police earnings premium holds even when the sample is limited to those police and private-sector workers with college degrees, though it is smaller (8.1% for college graduates versus 28.5% for those with no or some college). The pay premium for police stands in stark contrast to the pay differential for other public-sector workers, who typically have lower earnings than private-sector workers with similar education levels.

---

50. See David Card, Thomas Lemieux & W. Craig Riddell, *Unions and Wage Inequality: The Roles of Gender, Skill and Public Sector Employment*, 53 CANADIAN J. ECON. 140, 146, 159–60 (2020) (finding that unionization compresses the wage distribution of public-sector workers significantly with a more modest effect on wages themselves); Thomas Kochan, David B. Lipsky, Mary Newhart & Alan Benson, *The Long Haul Effects of Interest Arbitration: The Case of New York State's Taylor Law*, 63 INDUS. & LAB. RELS. REV. 565, 580 (2010) (finding that collective bargaining laws are associated with higher wage premium for police whether or not accompanied by arbitration rules); Dale Belman, John S. Heywood & John Lund, *Public Sector Earnings and the Extent of Unionization*, 50 INDUS. & LAB. RELS. REV. 610, 619 (1997) (finding that public-sector unionization and unionization density are both strongly correlated with public-sector wages).

51. See, e.g., Neil MacFarquhar, *Why Police Have Been Quitting in Droves in the Last Year*, N.Y. TIMES, <https://www.nytimes.com/2021/06/24/us/police-resignations-protests-asheville.html> (last updated July 14, 2021) [<https://perma.cc/FCF5-228BJ>] (discussing Asheville, North Carolina police department decline and citing low pay of about \$37,000 a year as a factor); *Police Pay Gap: Many of America's Finest Struggle on Poverty Wages*, NBC NEWS (Oct. 26, 2014, 6:05 PM), <https://www.nbcnews.com/feature/in-plain-sight/police-pay-gap-many-americas-finest-struggle-poverty-wages-n232701> [<https://perma.cc/6CPB-L43C>] (discussing pay disparities in St. Louis County, Missouri).

## 2. Employer Tenure

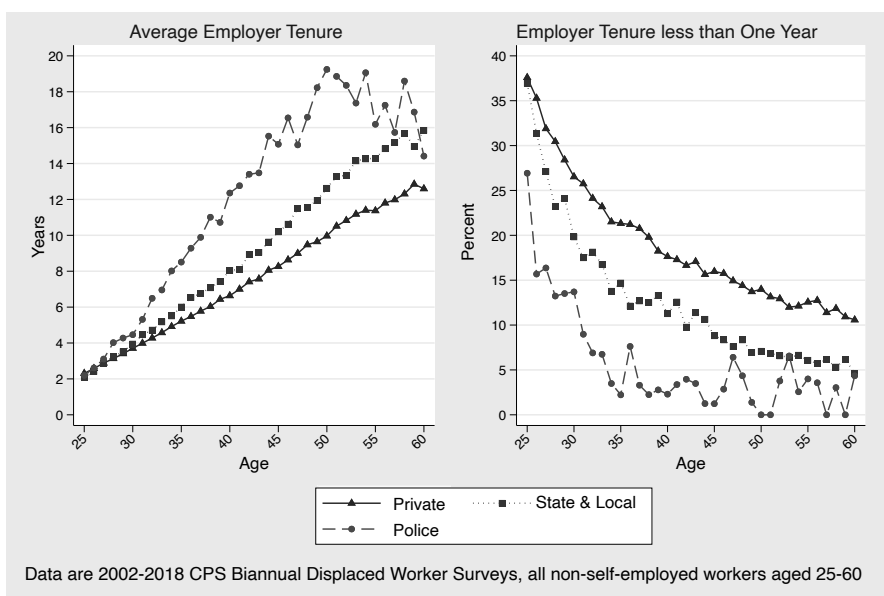
The employer tenure results reported in the first three columns of Table 1 indicate that police officers have on average more than 4.2 years (56%) longer employer tenure on average than private-sector workers and 1.8 years (17%) longer tenure than state- and local-government workers. Only 0.37% of those who report their occupation as police officers at their current or previous job report being displaced in the prior three years, compared to 5.8% of private-sector workers and 1.4% of state- and local-government workers. Regression results in Columns 4 and 5 tell the same story. Relative to private-sector workers, police have 74% longer employer tenure and are 84% less likely to be displaced. Relative to state and local workers, police have 40% longer employer tenure and are 81% less likely to be displaced.

Because employer tenure is strongly correlated with age, Figure 1 reports average tenure for each employment category by age as well as the probability of having tenure of less than one year. Perhaps the most striking result is that police officers at age fifty average roughly nineteen years of employer tenure, over four years longer than other state and local workers and nearly nine years longer than private-sector workers. Police officer tenure plateaus after the age of fifty, likely due to retirement formulas based on age, years of service, and high pension income that favor retiring around that age. Relative to other workers, very few police officers have tenure of less than one year after the age of thirty, indicating relatively little entry into the profession after that age and relatively little churn within the profession.

Finally, Table 1 examines unemployment rates using the CPS's Annual Social and Economic Supplement ("ASEC"). The ASEC only considers those looking for work to be unemployed, and it also distinguishes among the unemployed between layoffs and job leavers. Roughly speaking, layoffs occur due to closures or downsizing, while job leavers were either fired or quit. I report unemployment in general, and then unemployment rates for those defined as job leavers. In relative terms, the results are quite similar to the results from the Displaced Worker Supplement. Only 0.41% of those reporting policing as their occupation last year are currently unemployed for reasons other than a layoff or downsizing, compared to 3.2% of private-sector workers in this time period and 0.91% of public-sector workers. These large relative differences again change little when regression controls are added. Police are about 87% less likely to report unemployment for any reason compared with private-sector workers, and 61% to 65% less likely to report unemployment for any reason compared with public-sector workers.

The difference in police tenure disparities by educational and collective bargaining categories in Table 2 are relatively small or nonexistent, in stark contrast to the wage differentials. In other words, police officer employer tenure relative to other sectors within a state is not correlated with collective bargaining rules or educational attainment. The differing results on wages and employer tenure are consistent with collective bargaining strongly influencing wages but not marginally increasing job security, which may be addressed by civil service statutes.

FIGURE 1: EMPLOYER TENURE BY SECTOR AND AGE



### *C. Police Total Compensation: Nonwage Benefits, Risk, and Status*

Pay and job security are not the only forms of compensation police are afforded. Police officers have large nonwage retirement benefits that in some jurisdictions are generous even within the public sector. On the other hand, police have risks and stresses that many professions to which they are compared do not share. In particular, policing is widely regarded as a high-risk profession, and the profession has faced a diminished public standing amid recent cases of high-profile

misconduct.<sup>52</sup> Such amenities and disamenities are not accounted for in a simple regression on earnings, and the observed earnings disparity in favor of the police may be understated because of hard-to-value amenities such as early retirement, guaranteed pensions, and job security. On the other hand, the observed premium may be overstated because it in fact reflects a compensating differential for disamenities of policing such as risk of death and injury or lower social status.

### 1. Retirement Benefits

Police pensions generally include early retirement with a defined-benefit pension at 50% wage replacement. This is a perk almost unique to policing. For most police, retirement occurs between twenty and twenty-five years of service with pensions usually replacing about one-half of pay.<sup>53</sup> As a result, police retirement benefits start at an age ten to fifteen years younger than that of most private-sector workers. The present value of retirement income at retirement can be large. For example, a retirement benefit of \$50,000, beginning at the age of fifty-five with twenty-five years of expected payouts (a typical police retirement benefit), is worth in present value at retirement almost \$1 million.<sup>54</sup> The retirement benefits story is even more complicated because the vast majority of police are not covered by Social Security<sup>55</sup> and also make lower contributions toward retirement from current wages.<sup>56</sup> Thus, police take-home pay relative to private-sector workers is even higher as they are not subject to the Social Security 6.2% payroll tax nor do they typically make significant contributions toward their retirement. If police are reemployed in the private sector after retirement, or take a new public-sector job, they may be covered by Social Security or have an additional pension.

---

52. See Aimee Ortiz, *Confidence in Police Is at Record Low, Gallup Survey Finds*, N.Y. TIMES (Aug. 12, 2020), <https://www.nytimes.com/2020/08/12/us/gallup-poll-police.html> [https://perma.cc/N9UT-RJ6T] (reporting a Gallup survey finding the lowest level of public confidence in the police since the survey began in 1993 and that “56 percent of white adults said they were confident in the police, whereas only 19 percent of Black adults said the same”).

53. See MUNNELL, *supra* note 22, at 30–31.

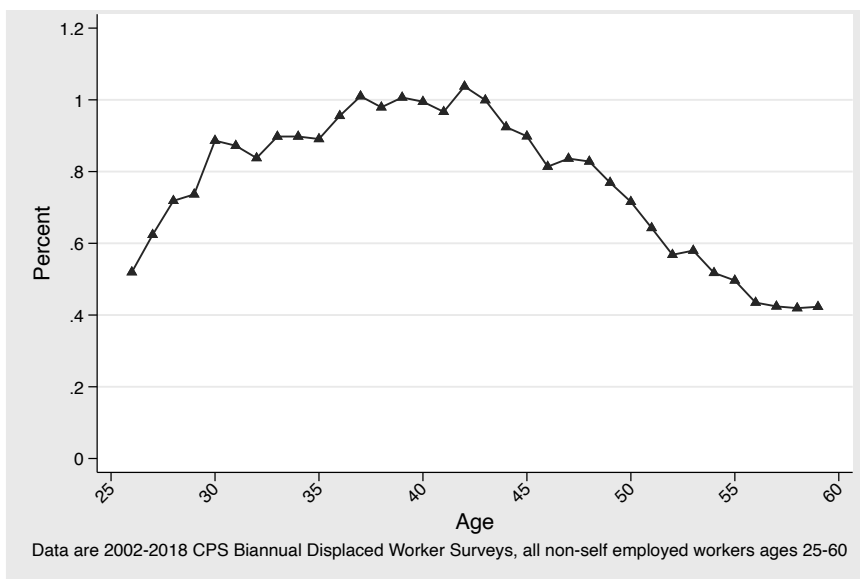
54. The calculation assumes a 2% nominal risk-free discount rate, which has been roughly the prevailing rate on the 10-year U.S. Treasury bond for the last ten years. See Federal Reserve Bank of St. Louis, *Market Yield on U.S. Treasury at 10-Year Constant Maturity, Quoted on an Investment Basis (DGS10)*, FRED, <https://fred.stlouisfed.org/series/DGS10> (enter start date 1/1/12 and end date 1/1/22) (last visited July 28, 2022) [https://perma.cc/LKP4-CXLY]. Higher discount rates would lower present value. On the other hand, there is additional value to the pension plan if it is inflation indexed, as is common among public-sector pensions.

55. MUNNELL, *supra* note 22, at 27, 30.

56. See *id.* at 30–31.

Figure 2 traces out the percentage of the non-self-employed labor force, by age, employed as police officers. A large drop is observed between the ages of forty-five and fifty-five, wherein the percentage of the labor force employed as police officers falls from 1% to 0.42%. Because of the already discussed low displacement and unemployment rates for police officers, this transition is due almost entirely to retirement. Moreover, in the ACS data 12.0% of active police officers aged fifty to sixty report having retirement income, compared to 3.1% of active private-sector workers and 4.7% of active state and local workers of that age range. The average retirement income of those workers who report having it is \$36,500 for police, compared to \$21,000 and \$23,000 for private and state and local sector workers respectively. Thus, many police officers transition to retirement or nonpolicing jobs in their late forties and fifties, but a significant number appear to switch to other departments while drawing a pension from their original department. There may be very good reasons to avoid having a large number of officers in their fifties and sixties on a police force. Nonetheless, early retirement and an inflation-protected annuity based on a 50% earnings replacement is a significant job amenity.

FIGURE 2: POLICE AS PERCENTAGE OF WORKFORCE



## 2. Officer Risk

Policing is a relatively high-risk occupation, but because of the salience of violent, high-profile officer killings, its risk may be exaggerated in the popular imagination. This Subsection explores the risks of policing as a disamenity by considering officer on-the-job deaths.

According to data assembled by Frank Zimring, police officer risk of being killed as a result of an assault while on duty has declined significantly over the past several decades, from 25 per 100,000 officers in the late 1970s and 1980s to between 5 and 10 per 100,000 between 2000 and 2012.<sup>57</sup> Zimring's data series ends in 2012, and there were some high-profile cases of officers being killed in the 2010s, including in mass officer shootings.<sup>58</sup> In order to assess whether these trends have changed in the last decade, I performed some risk calculations based on data from the Bureau of Labor Statistics and the Federal Bureau of Investigation's Crime in United States reports on the number of police officers in the United States.<sup>59</sup> Although violence is the leading cause of on-the-job deaths for police officers, accidents (generally traffic accidents) comprise about 40% of officer deaths. I therefore consider all deaths. Between 2003 and 2011, police on-the-job deaths averaged 139 per year but fell to an average of 112 per year between 2012 and 2020. The number of police officers varied during this period as well, so it is important to consider the death rate. Between 2004 and 2012, the average on-the-job fatality rate for police officers was 20 per 100,000. From 2012 to 2020, the average on-the-job fatality rate for police officers was 17 per 100,000. This compares to a roughly 3.4 per 100,000 on-the-job fatality rate for all workers since 2004.<sup>60</sup> Policing is thus riskier than the average job by roughly a factor of five, but the rate of on-the-job deaths for police officers has declined over the last decade. A back-of-the-envelope calculation of the risk of a statistical life suggests fairly

---

57. ZIMRING, *supra* note 11, at 107 fig.6.1 (collecting data from a variety of sources).

58. Most shocking perhaps was the sniper assassination of five police officers in Dallas in 2016. See Manny Fernandez, Alan Blinder & Julie Turkewitz, *As Dallas Sniper Prowled, Quick Decisions and Life-Altering Consequences*, N.Y. TIMES (July 22, 2016), <https://www.nytimes.com/2016/07/23/us/as-dallas-sniper-prowled-quick-decisions-and-life-altering-consequences.html> [<https://perma.cc/TSQ9-7TWF>].

59. *Census of Fatal Occupational Injuries*, U.S. BUREAU OF LAB. STAT., <https://www.bls.gov/iif/oshcfoi1.htm> (last modified Dec. 16, 2021) [<https://perma.cc/6D6E-SWQT>]; *Crime in the U.S.*, FED. BUREAU OF INVESTIGATION, <https://ucr.fbi.gov/crime-in-the-u.s> (last visited June 4, 2022) [<https://perma.cc/5FHM-F7AM>]. The FBI data begin in 2004.

60. The overall on-the-job fatality rate is quite stable over time, dipping a bit to 3.2 in the early 2010s following the construction bust. See Bureau of Lab. Stat., *National Census of Fatal Occupational Injuries in 2020*, U.S. DEPT OF LAB. 1 (Dec. 16, 2021), <https://www.bls.gov/news.release/pdf/cfoi.pdf> [<https://perma.cc/4EPW-RSUR>].

small pay differential to compensate police for risk. Assuming 14 more deaths per 100,000 for police officers annually relative to the average profession and a value of a statistical life of \$5 to \$10 million, a pay premium of \$700 to \$1,400 would be required to compensate for excess officer risk.

As of 2019, 87% of police officers are male,<sup>61</sup> and men comprise over 90% of all workplace fatalities.<sup>62</sup> There are other common, male-dominated occupations that carry a higher risk of death than policing. The Bureau of Labor Statistics data ranks police officer as the twenty-second riskiest profession for the period 2014–2018.<sup>63</sup> The rate of police officer on-the-job fatalities was half the rate or less than that of commercial pilots, garbage collectors, delivery truck drivers, and farmers.<sup>64</sup> Police had about the same risk of on-the-job death as crossing guards, heavy-equipment operators, construction workers, and maintenance workers.<sup>65</sup> Among male-dominated professions, policing is not particularly high-risk.

A fuller assessment of officer risk would also consider career risk instead of annual risk. In other words, while annual risks are higher for police than the average worker, police in general are able to limit their careers to twenty to twenty-five years, meaning that their annual risk overstates their total career risk exposure. Calculating total career risk and how it might affect total compensation as a disamenity is a difficult undertaking. First, officer risk varies greatly by assignment and location. Within a jurisdiction, police union contracts generally do not allow the jurisdiction's pay structure to account for the risk of assignment, which helps explain why officers quickly move to safer assignments when seniority permits them to.<sup>66</sup> Second, officer risk may be higher early in the career because new officers with less seniority often have higher-risk assignments. Should young officers be killed or injured, they lose more years of expected life or have to live longer with the injury. However, relatively younger people may actually be more

---

61. See Table 74: Full-time Law Enforcement Employees 2019, FED. BUREAU OF INVESTIGATION, <https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/tables/table-74> (last visited June 4, 2022) [<https://perma.cc/XG5E-RJNX>].

62. See Bureau of Lab. Stat., *supra* note 60, at 2.

63. See Adrian Mak, *Top 25 Most Dangerous Jobs in the United States*, ADVISORSMITH (Sept. 29, 2020), <https://web.archive.org/web/20201125230449/https://advisorsmith.com/data/most-dangerous-jobs/> [<https://perma.cc/MM8X-KV96>] [hereinafter *Top 25 Most Dangerous Jobs*, 2020]. In 2019, the data were not appreciably different. See Adrian Mak, *Top 25 Most Dangerous Jobs in the United States*, ADVISORSMITH (Sept. 30, 2021), <https://advisorsmith.com/data/most-dangerous-jobs/> [<https://perma.cc/F3ZD-LERT>] (reporting only 2019 data).

64. See *Top 25 Most Dangerous Jobs*, 2020, *supra* note 63.

65. See *id.*

66. See *infra* Part III.A.



tolerant of risk. Finally, it should be noted that perception of risk is also relevant and may not fully reflect reality. For example, accidental deaths may not have the same salience as deaths caused by violence, and high-profile police killings (marked by public funerals) may lead the public and police officers to overestimate the risks of policing.

The analysis presented here suggests that policing is a relatively high-risk profession on an annual basis, but for several decades these risks have been stable or declining and are partly mitigated by shorter careers. In fact, the risks to policing are actually substantially lower than in other common professions, such as a delivery driver. The greatest problem in police compensation may not be policing's relative risk to other professions but rather the failure to offer compensation that accounts for the highly variable risks across different police assignments discussed in greater detail in Part II.

### 3. Officer Status

Based on survey evidence as of 2010, policing is an occupation with moderately high prestige. Police and police supervisors had the highest prestige scores among service occupations<sup>67</sup> and had prestige levels comparable to high school and middle school teachers<sup>68</sup> but less than that of most health care professionals.<sup>69</sup> But there is likely an increasing negative public perception of police, beginning perhaps with Michael Brown's death in Ferguson, Missouri in 2014 and accelerating after George Floyd's murder by a police officer in 2020.<sup>70</sup> This decline in status, from both the public and elected officials, could undoubtedly constitute a serious job disamenity for police officers. At least a few large departments have experienced dramatic, unplanned force reductions since 2020 due to early retirements and officer exits,<sup>71</sup> but survey evidence based on 194 departments (though unrepresentative)

---

67. According to the General Social Survey, police in 2010 (not since updated) had a prestige score of 60, with police supervisors having a prestige score of 66. Tom W. Smith, Michael Davern, Jeremy Freese & Stephen L. Morgan, *General Social Surveys, 1972-2018 Cumulative Codebook*, NAT'L OP. RSCH. CTR. 3311 (2019), [https://gss.norc.umd.edu/documents/codebook/gss\\_codebook.pdf](https://gss.norc.umd.edu/documents/codebook/gss_codebook.pdf) [<https://perma.cc/Z7X2-TH8C>]. This was little changed from the 1989 scores of 60 and 62. *Id.* at 3301.

68. *Id.* at 3309.

69. *Id.* at 3310–11.

70. See Megan Brenan, *Amid Pandemic, Confidence in Key U.S. Institutions Surges*, GALLUP (Aug. 12, 2020), <https://news.gallup.com/poll/317135/amid-pandemic-confidence-key-institutions-surges.aspx> [<https://perma.cc/UEA3-ENKF>] (finding that only 48% of respondents stated that they had confidence in the police in 2020, an all-time low in 27 years of measurement, with the next lowest rating of 52% in 2014, the year of Michael Brown's death).

71. For example, Seattle reported a loss of over 20% of their police force in under two years from departures. *Survey on Police Workforce Trends*, POLICE EXEC. RSCH. F. (June 11, 2021), <https://www.policeforum.org/workforcesurveyjune2021> [<https://perma.cc/UPZ9-7Y2D>].

suggests modest force reductions overall as of 2021 even though retirement rates have significantly increased.<sup>72</sup> Moreover, policing is not the only profession with mounting evidence of increasing retirements and departures linked to worker dissatisfaction.<sup>73</sup>

#### *D. Conclusion*

Police enjoy relatively high earnings and employer tenure conditional on their level of education, age, state, metro area status, and hours worked. In addition to relatively high earnings, other job amenities include significant job security, early retirement, and employer-provided defined-benefit pensions. The police pay premium does not appear to be fully explainable as compensation for risk or professional status.

### II. EXPERIENCE, ASSIGNMENT, AND MISCONDUCT

A common feature of both civil service statutes and public-sector union contracts is significant perquisites that rely on seniority status, including salary, promotion, and job assignments. In the case of policing a large urban area, unit assignment and shift assignment are additional important job amenities because assignment risk and stress are highly variable. Due to civil service statutes and union contracts, assignments are parceled out largely based on seniority, and more senior officers dominate safer, lower-risk assignments.

The fact of seniority-based assignment in large urban departments has been remarked on in the policing literature as a source of significant concern for police management. A leading policing textbook described the problem succinctly, “New officers are typically assigned to patrol duty, usually in high crime areas and on the evening

---

72. *Id.* (reporting, in a survey in which 194 departments responded, a decrease of 3.13% in staffing levels of large departments between April 1, 2020 and April 1, 2021).

73. Kathryn Dill, *School's Out for Summer and Many Teachers Are Calling It Quits*, WALL ST. J. (June 20, 2022, 10:00AM), <https://www.wsj.com/articles/schools-out-for-summer-and-many-teachers-are-calling-it-quits-11655732689> [<https://perma.cc/WR6G-5CR6>] (reporting a 3% drop in the number of public-school teachers and staff between February 2020 and May 2022); Joshua Doležal, *The Big Quit: Even Tenure-Line Professors Are Leaving Academe*, CHRON. HIGHER EDUC. (May 27, 2022), <https://www.chronicle.com/article/the-big-quit> [<https://perma.cc/E5NS-GM89>] (citing survey evidence of increased retirement plans and departures from tenured faculty); Lauren Coleman-Lochner, *U.S. Hospitals Pushed to Financial Ruin as Nurses Quit During Pandemic*, BLOOMBERG (December 21, 2021, 10:34AM) <https://www.bloomberg.com/news/articles/2021-12-21/u-s-hospitals-pushed-to-financial-ruin-as-nurses-quit-en-masse#xj4y7vzkg> [<https://perma.cc/T5M2-FR8B>] (discussing hospital nursing losses and inability to recruit replacements).

shift.”<sup>74</sup> As early as the 1960s, the disparate racial impact of police assignment raised concerns, with the famous Kerner Commission concluding that “often a department’s worst [police officers], not its best, are assigned to minority group neighborhoods”<sup>75</sup> and concluding that the assignment of inexperienced and poorly trained officers to minority neighborhoods contributed to the “civil disorders” of the late 1960s.<sup>76</sup> A typical union contract prevents police supervisors from reassigning a problem officer away from a district or unit without formal process. On the flipside, supervisors cannot easily reassign experienced officers to a troubled district or unit. In a 2006 survey conducted by the U.S. Justice Department, 70% of union leaders and 64% of police chiefs ranked scheduling and assignments as a problem or a serious problem, far ahead of other issues, such as officer roles, racial profiling responses, or dealing with civilian review boards.<sup>77</sup>

Although the interrelation between officer experience, assignment, and misconduct is an obvious concern, there has been little quantitative work done that directly demonstrates the impact of these factors as a nexus. In a recent working paper relying on Chicago data, Ba et al. find that officer experience is negatively correlated with arrests for less serious crimes and strongly negatively correlated with use-of-force.<sup>78</sup> To provide some additional systematic evidence, I examine the intersection of officer experience, district assignment, and misconduct in the city of Chicago.

### *A. Officer Experience and District Assignment*

A common finding in the policing literature is that experience is an important factor in misconduct, with complaints against officers

74. SAMUEL WALKER & CHARLES M. KATZ, *THE POLICE IN AMERICA: AN INTRODUCTION* 161 (2013).

75. NAT’L ADVISORY COMM’N ON CIV. DISORDER, *REPORT OF THE NATIONAL ADVISORY COMMISSION ON CIVIL DISORDERS* 160 (1967), [https://www.hud.gov/sites/dfiles/FHEO/documents/kerner\\_commission\\_full\\_report.pdf](https://www.hud.gov/sites/dfiles/FHEO/documents/kerner_commission_full_report.pdf) [<https://perma.cc/R27W-SWHK>] (citing that “data from Commission investigators and from the Crime Commission”).

76. *Id.* at 8 (recommending that only “seasoned, well-trained” officers to be assigned to patrol minority communities).

77. OFF. OF CMTY. ORIENTED POLICING SERVS. OF U.S. DEP’T OF JUST., *POLICE LABOR–MANAGEMENT RELATIONS (VOL. I): PERSPECTIVES AND PRACTICAL SOLUTIONS FOR IMPLEMENTING CHANGE, MAKING REFORMS, AND HANDLING CRISES FOR MANAGERS AND UNION LEADERS* xxvii (2006).

78. Bocar Ba, Patrick Bayer, Nayoung Rim, Roman Rivera & Modibo Sidibé, *Police Officer Assignment and Neighborhood Crime* 20 (Nat’l Bureau Econ. Rsch., Working Paper No. 29243, 2022), [https://www.nber.org/system/files/working\\_papers/w29243/w29243.pdf](https://www.nber.org/system/files/working_papers/w29243/w29243.pdf) [<https://perma.cc/BV8Q-LN6V>].

declining with increased officer experience level or age.<sup>79</sup> In addition to complaint-based measures of misconduct, it is well-established that younger officers are more likely to use deadly force.<sup>80</sup> These findings are consistent with the broader empirical regularity in labor economics that productivity rises with experience, plateaus, and then falls as retirement approaches.<sup>81</sup> The findings are also consistent with cognitive psychological literature on decisionmaking under pressure and risk-taking, which tend to improve with age and experience. Indeed, although the cognitive ability of young persons can be high, areas of the brain that govern executive functioning or decisionmaking skills continue to develop “well into the early twenties or later,”<sup>82</sup> with some critical decisionmaking functions not fully formed on average until the age of thirty.<sup>83</sup>

Most studies on the effect of officer age and experience on misconduct, however, generally do not control for the risk factors that individual officers face, in particular assignment. This is a serious methodological limitation because assignment is an important risk factor, particularly in large heterogeneous urban areas, and less experienced officers typically draw the worst assignments. Moreover, union contracts and civil service statutes often privilege seniority in promotion and job assignment.<sup>84</sup> Consequently, younger officers may be placed in difficult situations more often. As such, district and shift assignment are important confounding factors that should be properly controlled for when studying the relationship between age, experience, and police misconduct.

---

79. See Kyle Rozema & Max Schanzenbach, *Good Cop, Bad Cop: Using Civilian Allegations to Predict Police Misconduct*, 11 AM. ECON. J.: ECON. POL'Y 225, 234 (2019); Marie Ouellet, Sadaf Hashimi, Jason Gravel & Andrew V. Papachristos, *Network Exposure and Excessive Use of Force: Investigating the Social Transmission of Police Misconduct*, 18 CRIMINOLOGY & PUB. POL'Y 675, 678 (2019); Christopher M. Donner & Wesley G. Jennings, *Low Self-Control and Police Deviance: Applying Gottfredson and Hirschi's General Theory to Officer Misconduct*, 17 POLICE Q. 203, 215–16 (2014); Steven G. Brandl, Meghan S. Stroshine & James Frank, *Who Are the Complaint-Prone Officers?: An Examination of the Relationship Between Police Officers' Attributes, Arrest Activity, Assignment, and Citizens' Complaints About Excessive Force*, 29 J. CRIM. JUST. 521, 525 (2001).

80. See Eugene A. Paoline & William Terrill, *Police Education, Experience, and the Use of Force*, 34 CRIM. JUST. & BEHAV. 179, 191–92 (2007); William Terrill & Stephen D. Mastrofski, *Situational and Officer-Based Determinants of Police Coercion*, 19 JUST. Q. 215, 241–43 (2002).

81. For the seminal work on age-earnings profiles, see Jacob Mincer, *Investment in Human Capital and Personal Income Distribution*, 66 J. POL. ECON. 281 (1958). For a textbook discussion, see GEORGE J. BORJAS, *LABOR ECONOMICS* 264–66 (2d ed. 2000).

82. Sara B. Johnson, Robert W. Blum & Jay N. Giedd, *Adolescent Maturity and the Brain: The Promise and Pitfalls of Neuroscience Research in Adolescent Health Policy*, 45 J. ADOLESCENT HEALTH 216, 216–18 (2009).

83. Leah H. Somerville, *Searching for Signatures of Brain Maturity: What Are We Searching For?*, 92 NEURON 1164, 1164 (2016).

84. See WALKER & KATZ, *supra* note 74, at 107, 161–62.

Chicago provides one of the best opportunities to study the effect of officer experience on assignment and misconduct. In addition to a database of civilian complaints, Chicago has released officer personnel records including age, date of hire, and assigned unit. Moreover, the Chicago police union contracts have significant provisions governing officer seniority, district or unit assignment, and watch assignment within the district or unit that place heavy priority on seniority.<sup>85</sup> In Chicago, there are twenty-two police districts defined geographically and three shifts, or “watches,” each day.<sup>86</sup> The present union contract specifies seniority-favored bidding procedures for assignments both within and across districts.<sup>87</sup> Although the Chicago Police Department has the power to set the number of officers for each unit and watch, about 80% of the unit or watch assignments are filled solely on a seniority basis.<sup>88</sup> It should be noted, however, that district supervisors retain flexibility in beat assignments, which are patrol areas within the district.

I begin by assessing average officer seniority and risk of serious crime by geographic district in Figure 3. It is clear that there are a handful of districts that accumulate a large number of officers with high seniority. Map A is shaded to represent the percent of officers with ten years or more of experience in 2017. The desirable districts, based on revealed officer preferences, are the districts covering the downtown (Chicago’s Loop)<sup>89</sup> and the three districts where most police officers and other city workers are known to live on the Chicago’s northwest and southwest sides.<sup>90</sup> Following these districts are predominantly White,

---

85. See Rahm Emanuel & Garry F. McCarthy, *Agreement Between the City of Chicago Department of Police and the Fraternal Order of Police Chicago Lodge No. 7 (2012-2017)*, at 37–38, 96 (2012), [https://www.chicago.gov/content/dam/city/depts/dol/Collective%20Bargaining%20Agreement3/FOPCBA2012-2017\\_2.20.15.pdf](https://www.chicago.gov/content/dam/city/depts/dol/Collective%20Bargaining%20Agreement3/FOPCBA2012-2017_2.20.15.pdf) [<https://perma.cc/4EQA-YZF3>] (focusing on § 23.8 Filling Vacancies and Memorandum of Understanding). It requires that 80% of the open spots be filled by seniority bidding procedures, creating a presumption that officers are qualified for the position if they currently hold such a position in any other unit. See *id.* These provisions have been extended under a new contract. *Authorization for Mayoral Execution of Collective Bargaining Agreement [CBA] Between City of Chicago and Fraternal Order of Police, Chicago Lodge Number 7*, CITY OF CHICAGO (July 16, 2021), <https://www.civiced.org/sites/default/files/o2021-3449.pdf> [<https://perma.cc/WYP9-R6AA>].

86. In 2012, three police districts were merged with one other contiguous district (District 13 merged with District 12, District 21 merged with District 2, and District 23 merged with District 19). I treat these districts as having merged throughout. There are a few dozen specialized units in addition to geographic police districts, but a majority of Chicago police are assigned geographic units. See *CPD Set to Close Three District Stations*, ABC7 NEWS (Mar. 3, 2012), <https://abc7chicago.com/archive/8567660/> [<https://perma.cc/U25Z-4DG4>].

87. See Emanuel & McCarthy, *supra* note 85, § 23.8, at 37–38.

88. *Id.* § 23.8, at 37–38, § 31.4, at 52–53.

89. District 1.

90. Districts 8, 16, and 22 covering southwest and northwest-side neighborhoods. See Whet Moser, *What’s the Safest Neighborhood in Chicago?*, CHI. MAG. (Aug. 27, 2013, 11:00 AM),

high-income northside districts that hug Lake Michigan, including tony neighborhoods such as Lincoln Park, Lakeview, and the Gold Coast.

Unsurprisingly, the districts favored by police officers with seniority, and hence with the greatest ability to transfer across districts, are also districts with low serious crime. Map B is a heat map representing the rate of serious gun crime in Chicago by police district. Because gun violence is the top law-enforcement problem in Chicago, I use a per-officer measure of serious gun crime defined as all shooting incidents that occur in the district divided by the number of police officers in 2017 and 2018 (the most recent years available).<sup>91</sup> This measure provides a proxy for the intensity of serious crime faced by officers. The rate of serious gun crime by district ranges from a low of 0.074 shootings per officer to a high of 1.42 shootings per officer, a nearly twenty-fold difference.

Table 3 breaks these facts down more systematically. For ease of presentation, I divide Chicago's twenty-two police districts into the highest-risk five, the middle twelve, and the safest five. As of 2017, 30% of the officers in the five riskiest districts had fewer than five years of experience compared to 6% in the five safest districts. The correlation coefficient between district-level average experience and civilian-on-civilian shootings per officer is -0.85, demonstrating a high negative correspondence between civilian-on-civilian shooting rates and average police officer experience within a district.

---

<https://www.chicagomag.com/Chicago-Magazine/September-2013/These-Are-the-Safest-Neighborhoods-in-Chicago/> [<https://perma.cc/8W7V-CQ27>].

91. Other measures of less serious crime (such as all index crimes) or more serious crimes (murder) are possible and yield similar results.

FIGURE 3: POLICE DISTRICT HEAT MAPS OF CHICAGO CIVILIAN-ON-CIVILIAN SHOOTINGS AND OFFICER EXPERIENCE

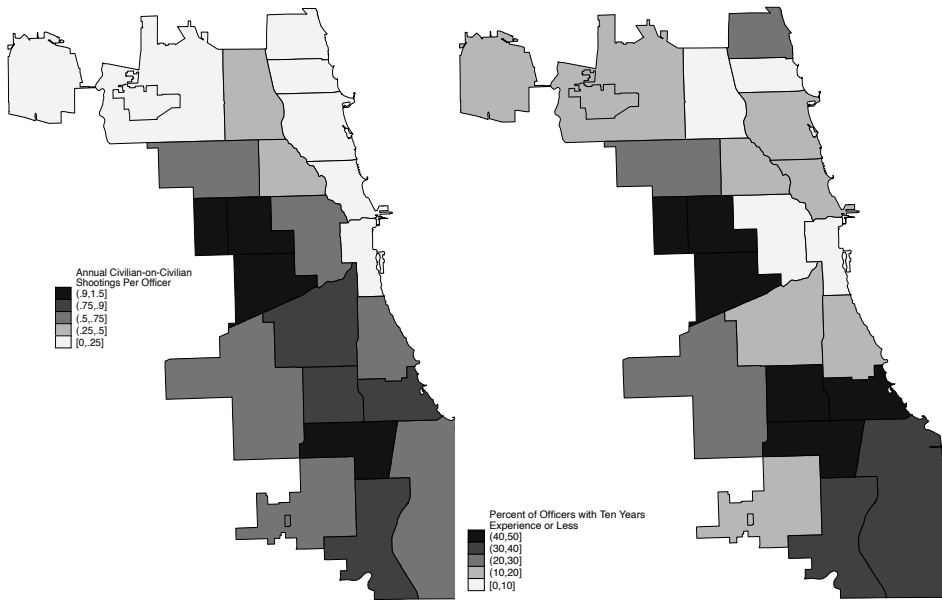


TABLE 3: POLICE DISTRICT EXPERIENCE LEVELS AND DISTRICT SHOOTING INCIDENTS (CHICAGO)\*\*

	(1) Five Riskiest Districts	(2) Twelve Intermediate Districts	(3) Five Safest Districts
<b>District Shooting Rate (civilian-on-civilian shootings per officer)</b>	1.06	0.580	0.105
<b>Average Experience (years)</b>	12.2	15.2	18.3
<b>Percent &lt; 5 Years Experience</b>	30.0%	16.2%	6.2%
<b>Percent &lt; 10 Years Experience</b>	41.5%	24.0%	10.5%
<i>Overall Correlation between Experience and District Shooting Rate: -0.85</i>			

\*\* *Shooting Rate* is defined as the number of recorded shooting incidents divided by the number of police officers stationed in each district during the years 2017 and 2018. "Shooting Incidents" are taken from the Chicago Police Department 2018 Annual Report page 58. Experience is calculated as of 2017 based on personnel data released by the Chicago Police Department.

I do not interpret these results as causal, but rather as descriptive. There is the possibility of a significant feedback effect—that more experienced police prefer safer assignments, which makes those districts safer because they have more experienced police, which makes them more attractive to experienced officers. But the sorting of officers has important policy implications regardless of the overall direction of causation and feedback effects. Less experienced officers are assigned to more dangerous neighborhoods, and less experienced officers are more prone to misconduct and mistakes. And, if policing follows the general experience-worker productivity path of almost all other professions, officers will become better at their jobs as they gain experience, meaning that relatively safe districts become even safer and better policed.<sup>92</sup>

### *B. Officer Misconduct and Officer Experience*

There is no single measure of officer misconduct.<sup>93</sup> However, a commonly used quantitative proxy for officer misconduct is an officer's rate of civilian allegations. Unlike other measures, such as shootings, use of force, or lawsuits, civilian complaints occur frequently enough to allow a granular assessment across officer ages and districts. Of course, not all civilian complaints are valid, but there is some evidence that civilian complaints, and particularly those officers who garner a great many, are related to actual officer misconduct.<sup>94</sup> For example, civilian complaints are correlated with other officer characteristics that signal misconduct, including civil rights litigation and outcomes, supervisor-

---

92. Ba et al., *supra* note 78 (discussing the experience-crime trade-off using an instrumental variables approach to account for the clear endogeneity of assignment and sort out the feedback effect described above). The authors find that the correlation between crime rates and average officer experience attenuates greatly under an instrumental variables approach but still remains negative and statistically significant. *Id.* at 18.

93. Misconduct can mean any wrongful act by a police officer, whether honestly undertaken or not. By “misconduct,” I do not mean that an officer intentionally committed harm. Indeed, it is possible that much early-career misconduct arises from lack of experience, training, and monitoring, not an animus-based instinct to harm. For example, police might draw more complaints if they lack the skills to deescalate difficult situations due to lack of experience, or commit wrongful arrests or searches due to poor training.

94. See Rozema & Schanzenbach, *supra* note 79, at 228. In a current working paper, Bocar Ba and Roman Rivera find that union memorandum issued to rank and file officers in Chicago warning about the disclosure of civilian misconduct data had a macro effect on police behavior, with serious allegations declining without a large effect on officer conduct. Bocar A. Ba & Roman G. Rivera, *The Effect of Police Oversight on Crime and Allegations of Misconduct: Evidence from Chicago*, INST. L. & ECON. (2019), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3317952](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3317952) [<https://perma.cc/37PW-GM25>].



based complaints, and off-duty misconduct.<sup>95</sup> For these reasons, civilian complaints are commonly used in the policing literature as a measure of officer misconduct.<sup>96</sup>

Figure 4 below reports the results of a panel regression taking individual officer allegations as the dependent variable, years of experience as the independent variable of interest, and district-year controls to account for the different risks faced by the officer's assignment using Chicago allegation data from 2002 to 2016.<sup>97</sup> The results are striking: allegation rates rise in the average officer's first two years, plateau for three years, and then gradually decline. Officers with three to five years of experience receive more than twice the allegations of officers with ten to twelve years of experience after controlling for district-year. The low levels of misconduct in the first two years are likely due to the probationary period of thirteen months during which new officers are closely monitored, have more limited assignments, and can be easily dismissed.

---

95. Rozema & Schanzenbach, *supra* note 79, at 226–28.

96. See Robert E. Worden, Christopher Harris & Sarah J. McLean, *Risk Assessment and Risk Management in Policing*, 37 POLICING: INT'L J. POLICE STRATEGIES & MGMT. 239 (2014); Ron Safer, Kish Khemani & James O'Keefe, *Preventing and Disciplining Police Misconduct: An Independent Review and Recommendations Concerning Chicago's Police Disciplinary System* (Dec. 2014), [https://chicagopatf.org/wp-content/uploads/2016/01/Preventing\\_Disciplining\\_Police\\_Misconduct\\_Dec\\_2014.pdf](https://chicagopatf.org/wp-content/uploads/2016/01/Preventing_Disciplining_Police_Misconduct_Dec_2014.pdf) [<https://perma.cc/22CA-RMF4>]; William Terrill & John McCluskey, *Citizen Complaints and Problem Officers: Examining Officer Behavior*, 30 J. CRIM. JUST. 143 (2002); Samuel Walker, Geoffrey P. Alpert & Dennis J. Kenney, *Early Warning Systems: Responding to the Problem Police Officer*, NAT'L INST. OF JUST. (July 2001), <https://www.ojp.gov/pdffiles1/nij/188565.pdf> [<https://perma.cc/6TKM-56Y9>]; Kim Michelle Lersch, *Predicting Citizen Race in Allegations of Misconduct Against the Police*, 26 J. CRIM. JUST. 87 (1998); Kim Michelle Lersch, *Are Citizen Complaints Just Another Measure of Officer Productivity? An Analysis of Citizen Complaints and Officer Activity Measures*, 3 POLICE PRAC. & RSCH. 135 (2002); Brandl et al., *supra* note 79, at 521.

97. The specific regression is as follows:  $Allegations_{it} = e_{it} + a_{jt} + \epsilon_{it}$  where  $Allegations_{it}$  are officer  $i$ 's allegations in year  $t$ ,  $e_{it}$  are officer  $i$ 's experience in year  $t$ , and  $a_{jt}$  controlling for the district-year. The regression removes any differences in a district for each year of the regression, thus allowing for changes within the same district over time.

Table 4 quantifies these results further, adding controls for shift assignment and whether the officer was assigned to a beat or a car. These controls are relevant because a beat or car assignment means that the officer is not assigned to desk duty but actively engaged with the public. Moreover, most serious crimes occur in the 4 p.m. to midnight shift. To the extent that experience is correlated with desk assignments and shift assignment, the results displayed in Figure 4, which only control for district and year, could be overstated. Unfortunately, only the years 2012 and 2013 can be used because I have shift assignments only for those years.

FIGURE 4: ALLEGATION RATE AND OFFICER EXPERIENCE  
(CHICAGO 2002–2016)

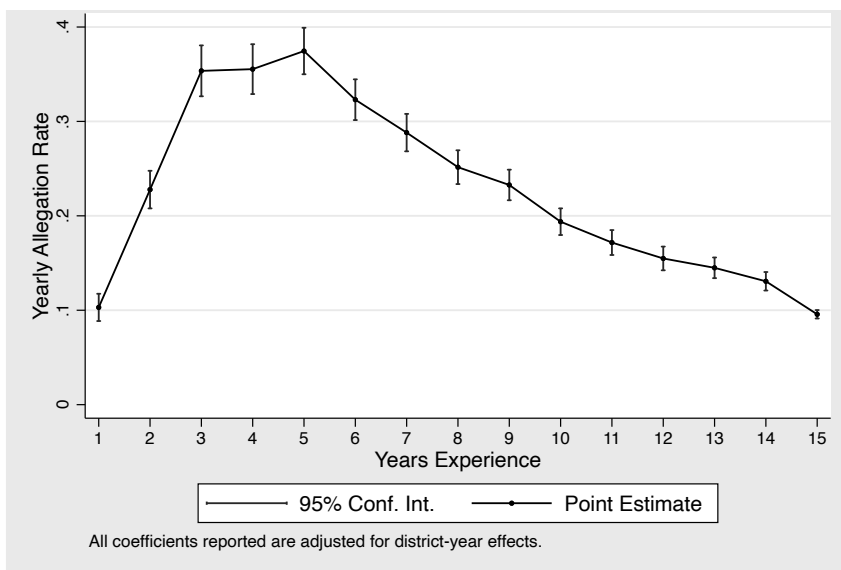


TABLE 4: OFFICER EXPERIENCE AND OFFICER CIVILIAN COMPLAINT RATE 2012–2013 (CHICAGO)

	(1)	(2)
<b>Experience (years)</b>	-0.0095 (.0016)	-0.0070 (.0018)
<b>District Fixed Effects</b>	Yes	Yes
<b>Watch Controls</b>	No	Yes
<b>Beat Assignment</b>	No	Yes
<b>Car Assignment</b>	No	Yes
<b>Dep Var Average = 0.143</b>		

N=16,935. Coefficients are significant at  $p < .001$ . The yearly average for civilian complaints in 2012 and 2013 was 0.143 per officer. Data are officers with between 2 and 15 years experience for the years 2012 and 2013 who are assigned to a geographic district. Civilian allegations are defined as wrongful arrest, unlawful search, excessive force, and verbal abuse. Off-duty misconduct involving civilians, such as domestic violence or drunk driving accidents, are not included.

Column 1 includes district-year controls (as in Figure 4) and finds that an additional year of officer experience reduces the annual civilian complaint rate by -0.0095. Controlling for whether the officer was assigned to a beat or a car and the shift to which the officer was assigned reduces the estimated benefit of experience to -0.0070, but it remains highly significant.<sup>98</sup> Interpreted in light of the sample average of 0.143 civilian allegations a year, the results suggest that five additional years of experience reduce misconduct by almost 25%, all else equal.

### C. Conclusion

Police union contracts and civil service regulations regularly rely on seniority to allocate assignments, experienced officers prefer assignments in lower crime neighborhoods, and police experience is highly correlated with police misconduct. The constraints imposed by contracts and civil service statutes prevent those who manage the police from creating proper age and experience mixes within police assignments and from experimenting with assignment policies. The long-standing concerns regarding officer quality, experience, and

98. This assignment is assessed as of January of that year.

assignment, expressed over fifty years ago by the Kerner Commission, are readily quantified in Chicago. These results evidence how union and civil service contracts can simultaneously produce more misconduct and less effective policing in neighborhoods wherein both the benefits of good policing and the costs of misconduct are high. I caution that I have not produced evidence regarding the optimal mix of experience within police units or how to train up and mentor young officers.

### III. THE PROBLEM OFFICER, OR “ROTTEN APPLES,” THEORY OF POLICE MISCONDUCT

The so-called “problem officer” or “rotten apple” theory of police misconduct has been the focus of a significant amount of scholarly and public debate. The presence of problem officers creating outsized harm is at present conventional wisdom,<sup>99</sup> even cited by then-candidate Joe Biden in a presidential debate.<sup>100</sup> On the other hand, some commentators have criticized the rotten apples theory as distracting from systemic issues in policing, including systemic racism. As one paper recently put it, focusing on problem officers “allows police leaders to explain police deviance within their departments as an interpretation that the deviance is contained within a small number of rotten apples and is not widespread throughout the agency.”<sup>101</sup> Indeed, Justice Department investigations have painted whole departments as seriously flawed, including Baltimore, Maryland<sup>102</sup> and Ferguson, Missouri.<sup>103</sup> Of course, as others have astutely observed, bad apples and rotten barrels are not mutually exclusive nor do rotten apples mean

---

99. See, e.g., John Rappaport, *How Private Insurers Regulate Public Police*, 130 HARV. L. REV. 1539, 1585 (describing “bad apple” theory of police misconduct as “conventional wisdom,” collecting studies, and the response of insurers).

100. See Reid J. Epstein & John Eligon, *Biden Said, “Most Cops Are Good.” But Progressives Want Systemic Change*, N.Y. TIMES, <https://www.nytimes.com/2020/08/19/us/politics/democrats-biden-defund-police.html> (last updated Apr. 20, 2021) [<https://perma.cc/7NBj-LMXD>].

101. Donner & Jennings, *supra* note 79, at 208.

102. U.S. DEPT OF JUST., C.R. DIV., INVESTIGATION OF THE BALTIMORE CITY POLICE DEPARTMENT 3 (2016), <https://www.justice.gov/crt/file/883296/download> [<https://perma.cc/CT4C-MSH2>] (summarizing findings showing the Baltimore Police Department engaged in a “pattern or practice” of “unconstitutional stops, searches, and arrests,” “excessive force,” retaliation, and racial discrimination).

103. U.S. DEPT OF JUST., C.R. DIV., INVESTIGATION OF THE FERGUSON POLICE DEPARTMENT 1–3 (2015), [https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson\\_police\\_department\\_report.pdf](https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/ferguson_police_department_report.pdf) [<https://perma.cc/2WSC-YABB>] (summarizing findings showing the Ferguson Police Department engaged in a “pattern or practice of unlawful conduct . . . that violates the First, Fourth, and Fourteenth Amendments to the United States Constitution, and federal statutory law”).

that systemic failures are not at issue.<sup>104</sup> For example, network analyses suggest that rotten apples can be infectious to those within their network.<sup>105</sup>

Nonetheless, systemic issues embodied in norms, cultures, or unwritten codes, however one wishes to describe them, are shaped by the incentives and decisions made by supervisors, regulations, and the law. The focus on problem officers, to be clear, is not to deny the presence of systemic issues. Indeed, the fact that problem officers are identifiable but remain employed without consequence is, in my view, a systemic failure. Nor are systemic problems, such as stop-and-frisk, mutually exclusive with the existence of problem officers.

#### *A. Quantitative Evidence on the Relevance of Problem Officers*

Table 5 sets forth a literature survey across multiple data sources, which primarily rely on civilian allegations of misconduct to identify problem officers. Most studies find that misconduct is not evenly distributed across the police force, with a long right-tail of the misconduct distribution (in other words, a few officers account for a lot of measured misconduct). Not all studies adjust for officer experience or the risks associated with an officer's particular assignment. But studies that try to take such factors into account continue to find strong concentrated misconduct.

---

104. Ouellet et al., *supra* note 79, at 694 (“Individual incidents of police misconduct and violence . . . represent more than a debate between bad apples and bad barrels,” and this helps us understand the importance of “social contexts that can lead to such tragic events.”).

105. See, e.g., George Wood, Daria Roithmayr & Andrew V. Papachristos, *The Network Structure of Police Misconduct*, 5 SOCIUS 1, 15 (2019) (“Beyond individual bad apples and bad institutions, officer networks appear to play an important role in the emergence and possibly even persistence of misconduct.”).

TABLE 5: SELECTED STUDIES RELATED TO “PROBLEM OFFICERS”

City	Source	Outcome
New York City	Author's calculations	Between 2014 and 2018, two-thirds of officers had no civilian complaint, 82% of those with a civilian complaint had one or two, and the worst 1% of officers had six or more complaints.
Chicago	Rozema & Schanzenbach 2020 <sup>106</sup>	Adjusting for unit assignment and year, 5% of officers account for one-third of all complaints.
Los Angeles County Sheriff's Department	Compiled in 2014 under interim L.A. County Sheriff John Scott. <sup>107</sup>	300 officers out of approximately 10,000 sworn officers were placed on a “Brady list” as problematic witnesses due to disciplinary history.
St. Petersburg, FL	Terrill & McCluskey 2002 <sup>108</sup>	5% of officers were responsible for 20% of use of force/discourtesy complaints.
Unidentified “Midwestern City”	Brandl et al. 2001 <sup>109</sup>	10% of officers receive 25% of excessive force complaints.
Unidentified “large police department in the Southeast.”	Lersch & Mieczkowski 1996 <sup>110</sup>	7% of officers account for 35% of civilian complaints.
Los Angeles	Christopher Commission 1991 <sup>111</sup>	About 2% of officers account for 27.5% of all excessive force complaints.

106. Kyle Rozema & Max Schanzenbach, *A Proactive Approach to Abusive Policing*, WALL ST. J. (June 3, 2020, 7:00 PM), <https://www.wsj.com/articles/a-proactive-approach-to-abusive-policing-11591225200> [https://perma.cc/82NX-4MJA]. For more data and explanations, see Rozema & Schanzenbach, *supra* note 79. For consistent representations of the Chicago's police complaint data, see Ouellet et al., *supra* note 79, at 687 fig.3.

107. There has been litigation over making this list public, which the Los Angeles County Sheriff's Department is still refusing to do. See Maya Lau, Ben Poston & Corina Knoll, *Inside a Secret 2014 List of L.A. Deputies With Histories of Misconduct*, L.A. TIMES (Dec. 8, 2017, 5:00 AM), <https://www.latimes.com/local/la-me-sheriff-brady-list-20171208-htmllstory.html> [https://perma.cc/2XSN-A3ZX].

108. See Terrill & McCluskey, *supra* note 91, at 147.

109. Brandl et al., *supra* note 79, at 525.

110. Kim M. Lersch & Tom Mieczkowski, *Who Are the Problem-Prone Officers? An Analysis of Citizen Complaints*, 15 AM. J. POLICE 23, 32 (1996).

111. The Christopher Report found that there were 8,450 sworn police officers. INDEP. COMM'N OF THE LAPD, REPORT OF THE INDEPENDENT COMMISSION ON THE LOS ANGELES POLICE DEPARTMENT (CHRISTOPHER COMMISSION REPORT) viii (1991), <https://archive.org/details/ChristopherCommissionLAPD/page/n5/mode/2up> [https://perma.cc/23JP-VSLF]. The Christopher Commission reported that of those officers who had an excessive force complaint, the top 10% received 27.5% of all complaints. *Id.* at 36. But only 1,900 officers out of about 8,450 total ever received any complaint at all. The Christopher Commission did not back out the overall number, but we can back-of-the-envelope estimate it by dividing the 180 officers who received 27.5% of all complaints by the approximate total number of officers in this period, 8,450 (yielding 2.13% of officers received 27.5% of all allegations). Between 1986 and 1990, there were 2,044 excessive force complaints made against 1,802 officers. *Id.* at 35–36 tbl.3-1, tbl. 3-2 (multiplying the fraction of excessive force complaints by 8,274, for a rate of about 0.24 excessive force complaints per sworn officer (2044/8450)). The worst 2% of officers accounted for 27.5% of all excessive force complaints, giving the worst 2% of officers 12.8 times the complaint rate of the average officer. *Id.* at 36.

One study that bears emphasizing, which is not available to the public (and is the subject of litigation), is the Los Angeles County Sheriff's Department's own review of officers whose regular misconduct rises to the level under which prosecutors may be required under *Brady v. United States* to disclose the officer's misconduct history to the defense.<sup>112</sup> This belies the notion that officers who draw many complaints are somehow more productive than officers who do not. When high-misconduct officers make arrests, such officers may not be able to credibly testify and obtain a conviction. For example, in Baltimore, the notorious Gun Trace Task Force of the Baltimore Police was comprised of officers with extensive misconduct complaints. Task force officers during the 2010s were making high-profile arrests, frequently highlighted in the news media as successes.<sup>113</sup> Nonetheless, prosecutors had increasing difficulty obtaining convictions because the task force officers' testimony was easy to impeach as misconduct claims mounted and the defense bar learned of the officers' reputations.<sup>114</sup> Indeed, in several major jurisdictions, prosecutors maintain so-called "do not call" lists of officers whose misconduct history would make them problematic witnesses or prompt a Brady disclosure.<sup>115</sup>

The signal contained in an officer's misconduct record is undoubtedly noisy. However, there is growing evidence that problem officers can often be identified through civilian complaints, supervisor reports, off-duty misconduct, and civil rights litigation.<sup>116</sup> It appears

---

112. 397 U.S. 742 (1970).

113. BAYNARD WOODS & BRANDON SODERBERG, *I GOT A MONSTER: THE RISE AND FALL OF AMERICA'S MOST CORRUPT POLICE SQUAD 33*, 159–60, 238 (2020).

114. *Id.*

115. Eli Hager & Justin George, *One Way to Deal with Cops Who Lie? Blacklist Them, Some DAs Say*, MARSHALL PROJECT (Jan. 17, 2019, 6:00 AM), <https://www.themarshallproject.org/2019/01/17/one-way-to-deal-with-cops-who-lie-blacklist-them-some-das-say> [<https://perma.cc/G3KW-PCB4>] (discussing District Attorneys in Houston, St. Louis, Baltimore, and Tucson and building lists of officers who will not be allowed to testify).

116. JACK R. GREENE, ALEX R. PIQUERO, MATTHEW J. HICKMAN & BRIAN A. LAWTON, *POLICE INTEGRITY AND ACCOUNTABILITY IN PHILADELPHIA: PREDICTING AND ASSESSING POLICE MISCONDUCT* iii (2004), <https://www.ojp.gov/pdffiles1/nij/grants/207823.pdf> [<https://perma.cc/VUC7-UZET>] (discussing that the most frequent indicators of problematic officer behavior were departmental discipline, followed by physical abuse complaints, internal investigations, and off-duty incidents); see Rozema & Schanzenbach, *supra* note 79. Some scholars have found that discriminatory behavior, such as discriminatory ticket writing, can exist in much larger percentages of a department. See, e.g., Felipe Goncalves & Steven Mello, *A Few Bad Apples? Racial Bias in Policing*, 111 AM. ECON. REV. 1406, 1406 (2021) (finding as much as 42% of officers racially discriminate to some degree in ticket writing and suggesting reassignment as a mechanism to reduce the effects of discrimination). This finding is consistent with the U.S. Justice Department's qualitative assessment of Ferguson, Missouri's ticket-writing policies. U.S. DEP'T OF JUST., *supra* note 103, at 2–5. However, the misconduct I am focused on in this Part is the most serious type, involving primarily accusations of excessive force, illegal search, and wrongful arrest. That is in no way to deny that other types of misconduct, not encompassed within civilian complaints, can persist widely in a department.

that the strongest signal of misconduct is primarily from the far right-tail of the officer distribution.<sup>117</sup> In other words, civilian complaints can distinguish the worst officers from the rest, but the signal may be too noisy to distinguish a good officer from the average officer. But some of that noise is created by the intentional obfuscation of the institutions charged with monitoring the police. For example, Minneapolis police have an informal policy of discouraging civilians from filing complaints, confirmed by an audit study in which testers were sent into police precincts to file complaints and were regularly turned away.<sup>118</sup> In New York City, the police department, as opposed to an independent agency, has the sole power to discipline officers and regularly reduces punishments suggested by the civilian board, discouraging complaint filings.<sup>119</sup> Under Illinois law prior to a 2021 reform, investigations into allegations made by civilians against the police could proceed only if there was a sworn affidavit and further “[a]ny complaint, having been supported by a sworn affidavit, and having been found, in total or in part, to contain knowingly false material information, shall be presented to the appropriate State’s Attorney for a determination of prosecution.”<sup>120</sup> Moreover, the affidavit had to be sworn in person, which affected the ability of civilians to complain.<sup>121</sup> Prior to the legal reform, in Chicago up to half of civilian complaints failed for want of an affidavit in support of them.<sup>122</sup>

### *B. Qualitative Evidence on Problem Officers and Officer Experience*

High-profile incidents of police misconduct—those that capture the national attention or lead to criminal prosecutions—are interesting to consider for two reasons. First, they give us a case-based understanding of whether there were warnings that supervisors either

---

117. See Rozema & Schanzenbach, *supra* note 79, at 248.

118. Susan Du, *Undercover Lawyers Find Minneapolis Hinders Complaints About Police*, CITY PAGES (Aug. 14, 2016), <https://web.archive.org/web/20161018230238/http://www.citypages.com/news/undercover-lawyers-find-minneapolis-hinders-complaints-about-police/390017322> [<https://perma.cc/4VLX-F83V>].

119. Ashley Southall, Ali Watkins & Blacki Migliozi, *A Watchdog Accused Officers of Serious Misconduct. Few Were Punished.*, N.Y. TIMES (Nov. 15, 2020), <https://www.nytimes.com/2020/11/15/nyregion/ccrb-nyc-police-misconduct.html> [<https://perma.cc/FGN9-C7VW>] (reporting that the Civilian Complaint Review Board “is considered to be so weak that some lawyers said they discouraged their clients from filing a complaint”).

120. 50 ILL. COMP. STAT. 725/3.8 (2021) (before amendment by P.A. 101-652 on July 1, 2021).

121. See Bocar A. Ba, *Going the Extra Mile: The Cost of Complaint Filing, Accountability, and Law Enforcement Outcomes in Chicago* 15 (Nov. 5, 2017) (Job Market Paper, Univ. of Chi.), <https://assets.aeaweb.org/asset-server/files/5779.pdf> [<https://perma.cc/8542-SKH9>] (finding that when the location changed, complaints decreased for incidents that occurred farther away).

122. See Rozema & Schanzenbach, *supra* note 79, at 255.



ignored or were statutorily or contractually prohibited from utilizing. Second, these events can seriously damage police-community relations—at times nationwide.

I consider incidents between Michael Brown's killing in Ferguson, Missouri, and George Floyd's killing in Minneapolis, Minnesota. Qualitatively, there are three types of officers who are involved in high-profile killings. The first is the known problem officer, with a history of complaints and off-duty misconduct. The second are inexperienced officers. And the third type are officers who either did not follow proper procedures or followed procedures that were deeply problematic.

### (1) Killings and Misconduct by Officers with Serious Misconduct Records

- *George Floyd*, Minneapolis, MN (2020). In a killing that sparked global protests, George Floyd died of asphyxiation after Officer Derek Chauvin placed a knee on his chest for over nine minutes.<sup>123</sup> Chauvin was in the top 10% of officers for civilian complaints based on the last five years of data.<sup>124</sup>
- *Justine (Ruszczyk) Damond*, Minneapolis, MN (2017). Justine Damond, a nurse who called 911 to report a possible assault, was shot to death by Officer Mohamed Noor, who was convicted of third-degree murder as a result.<sup>125</sup> Noor had three formal complaints in barely two years on the force and was facing a civil suit for an alleged off-duty assault on a woman.<sup>126</sup>
- *Numerous Victims of Gun Trace Task Force*, Baltimore, MD (2007–2017). The Baltimore Police Department's Gun Trace Task Force was a police squad aimed at finding guns and tracing them back to their owners or suppliers. At least eight officers of this task force were involved in a regular practice of using excessive force, planting evidence, committing perjury, making false arrests, dealing drugs, and stealing, while also responsible

---

123. Evan Hill, Ainara Tiefenthäler, Christiaan Triebert, Drew Jordan, Haley Willis & Robin Stein, *How George Floyd Was Killed in Police Custody*, N.Y. TIMES, <https://www.nytimes.com/2020/05/31/us/george-floyd-investigation.html> (last updated Jan. 4, 2022) [<https://perma.cc/7HSJ-NFW8>].

124. Rozema & Schanzenbach, *supra* note 106.

125. Mitch Smith, *Minneapolis Police Officer Convicted of Murder in Shooting of Australian Woman*, N.Y. TIMES (Apr. 30, 2019), <https://www.nytimes.com/2019/04/30/us/minneapolis-police-noor-verdict.html> [<https://perma.cc/Q6VW-NNDZ>].

126. David Chanen & Faiza Mahamud, *What We Know About Mohamed Noor, Minneapolis Officer Who Fatally Shot Justine Damond*, MINNEAPOLIS STAR TRIB. (July 18, 2017, 9:47 AM), <https://www.startribune.com/what-we-know-about-mohamed-noor-minneapolis-police-officer-who-fatally-shot-justine-damond/435018163/> [<https://perma.cc/T6H5-YVQ8>].

for a fatal car accident.<sup>127</sup> Eight officers were sentenced to significant prison time.<sup>128</sup> Maryland keeps disciplinary files confidential. Nonetheless, sustained complaints and litigation revealed that these officers, in particular Wayne Jenkins and Danny Hersl, had significant disciplinary and misconduct records, including supervisor, civilian, and off-duty complaints, as well as civil judgments.<sup>129</sup>

- *Laquan MacDonald*, Chicago, IL (2014). Laquan MacDonald was shot sixteen times, at times while lying prone on the ground, by Officer Jason Van Dyke, who was convicted of second-degree murder as a result.<sup>130</sup> Van Dyke was in the worst 3% of officers for civilian complaints, adjusted for risk and assignment.<sup>131</sup> In his fourteen-year career, he had twenty civilian complaints and two civil suits against him, one of which resulted in a jury award of \$350,000.<sup>132</sup>
- *Eric Garner*, New York City, NY (2014). Eric Garner died from asphyxiation when Officer Daniel Pantaleo employed a chokehold on him while arresting him for selling cigarettes.<sup>133</sup> The chokehold was later determined to have been prohibited under New York Police Department rules.<sup>134</sup> Pantaleo was in the worst 1% of officers (unadjusted) and also was a defendant in two lawsuits, one of which settled.<sup>135</sup> Fired five years after

127. For descriptions of the various crimes of the Gun Trace Task Force and its astonishing complaint, lawsuit, and disciplinary records, see generally WOODS & SODERBERG, *supra* note 113.

128. Justin Fenton, *Sentencing Set for Last Officer in Baltimore Police Gun Trace Task Force Corruption Case*, BALT. SUN (May 16, 2019, 11:45 AM), <https://www.baltimoresun.com/news/crime/bs-md-ci-gttf-rayam-sentencing-20190516-story.html> [<https://perma.cc/5ZY2-JNVM>].

129. See *Burley v. Balt. Police Dep't.*, 422 F. Supp. 3d 986, 998–1000 (D. Md. 2019); WOODS & SODERBERG, *supra* note 113, at 35, 47–48, 124–25, 153, 173, 192, 237; Julie Bykowiec, *Drug Case Falls Apart*, BALT. SUN (Mar. 27, 2006, 12:00 AM), <https://www.baltimoresun.com/news/bs-xpm-2006-03-27-0603270114-story.html> [<https://perma.cc/4AJX-RVQQ>] (discussing a sustained complaint involving off-duty assault on woman in a bar by Officer Hersl).

130. Megan Crepeau, Christy Gutowski, Jason Meisner & Stacy St. Clair, *Jason Van Dyke Given Relatively Lenient Sentence of Under 7 Years in Prison for Laquan McDonald Shooting*, CHI. TRIB. (Jan. 18, 2019, 8:50 PM), <https://www.chicagotribune.com/news/breaking/ct-met-jason-van-dyke-laquan-mcdonald-sentenced-20190118-story.html> [<https://perma.cc/7Z2L-AX3N>].

131. Rozema & Schanzenbach, *supra* note 79, at 258.

132. Elliott C. McLaughlin, *Chicago Officer Had History of Complaints Before Laquan McDonald Shooting*, CNN, <https://www.cnn.com/2015/11/25/us/jason-van-dyke-previous-complaints-lawsuits/index.html> (last updated Nov. 26, 2015) [<https://perma.cc/X2G6-Y59U>].

133. William Finnegan, *How Police Unions Fight Reform*, NEW YORKER (July 27, 2020), <https://www.newyorker.com/magazine/2020/08/03/how-police-unions-fight-reform> [<https://perma.cc/3346-UNDJ>].

134. Ashley Southall, *Police Investigators Determined Officer Choked Eric Garner*, N.Y. TIMES (May 13, 2019), <https://www.nytimes.com/2019/05/13/nyregion/eric-garner-death-daniel-pantaleo-trial-chokehold.html> [<https://perma.cc/92PA-3QUY>].

135. Finnegan, *supra* note 133.

Garner's death, Pantaleo is now suing to get his job back.<sup>136</sup> The suit has been financed by the New York police union.<sup>137</sup>

- *Tamir Rice*, Cleveland, OH (2014). Cleveland, Ohio Police Officer Timothy Loehmann, at age twenty-six, had spent only a few months on the force prior to killing Tamir Rice, a twelve-year-old boy holding an air gun.<sup>138</sup> But Loehmann resigned after he had been recommended for discharge during his probationary period with a suburban department, in part due to his inability to handle stress and poor weapons handling.<sup>139</sup> Loehmann was ultimately fired by the Cleveland Police Department, but the Department had not called the previous department for a reference.<sup>140</sup>

## (2) Killings by Inexperienced Officers

- *Philando Castile*, Suburban Minneapolis, MN (2016). Officer Jeronimo Yanez, who shot and killed Philando Castile (broadcast in real time over Facebook), apparently had no prior disciplinary history but was twenty-nine years old at the time of the shooting.<sup>141</sup>
- *Michael Brown*, Ferguson, MO (2014). I was unable to find any public reports of prior misconduct by Officer Darren Wilson, who shot Michael Brown to death in Ferguson, Missouri. Wilson was twenty-eight years old at the time of the shooting, which was later found to be justified in a U.S. Justice Department investigation.<sup>142</sup> However, the Justice Department's report referenced prior complaints against Officer Wilson, but did not

136. *Id.*

137. *Id.*

138. Shaila Dewan & Richard A. Oppel Jr., *In Tamir Rice Case, Many Errors by Cleveland Police, Then a Fatal One*, N.Y. TIMES, (Jan. 22, 2015) <https://www.nytimes.com/2015/01/23/us/in-tamir-rice-shooting-in-cleveland-many-errors-by-police-then-a-fatal-one.html> [<https://perma.cc/D9SJ-4W26>].

139. Christine Mai-Duc, *Cleveland Officer Who Killed Tamir Rice Had Been Deemed Unfit for Duty*, L.A. TIMES (Dec. 3, 2014, 5:48 PM), <https://www.latimes.com/nation/nationnow/la-na-nn-cleveland-tamir-rice-timothy-loehmann-20141203-story.html> [<https://perma.cc/5TQ6-DHEE>].

140. *Id.*

141. Amy Forliti, *Officer Who Killed Philando Castile Will Get \$48,500 in Buyout*, CHI. SUN-TIMES (July 10, 2017, 10:53PM), <https://chicago.suntimes.com/news/officer-who-killed-philando-castile-will-get-48500-in-buyout/> (giving Officer Yanez's age as 29); *Officer Who Shot Philando Castile 'Incredibly Sad' for His Family*, CBS MINN. (July 8, 2016, 6:31 PM), <https://minnesota.cbslocal.com/2016/07/08/castile-officers/> [<https://perma.cc/9HW4-ATWD>].

142. DEPT OF JUST., REPORT REGARDING THE CRIMINAL INVESTIGATION INTO THE SHOOTING DEATH OF MICHAEL BROWN BY FERGUSON, MISSOURI POLICE OFFICER DARREN WILSON 5 (2015), [https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/doj\\_report\\_on\\_shooting\\_of\\_michael\\_brown\\_1.pdf](https://www.justice.gov/sites/default/files/opa/press-releases/attachments/2015/03/04/doj_report_on_shooting_of_michael_brown_1.pdf) [<https://perma.cc/4UK3-5GBJ>].

analyze them or report their number because none were “substantiated” and would not be admissible in a criminal proceeding.<sup>143</sup>

- *Akai Gurly*, Brooklyn, NY (2014). New York City Police Officer Peter Liang, who discharged his firearm in an unlit stairwell, killing Akai Gurly,<sup>144</sup> had only one prior complaint against him<sup>145</sup> but was only twenty-seven years old at the time of the killing and had been on the job for only eighteen months.<sup>146</sup>

Of course, not every high-profile incident follows the pattern laid out above. Bad tactics, diffusion of responsibility, poor supervision, and the like can kill too. For example, Breonna Taylor’s shooting death in Louisville, Kentucky, caused by police officers returning fire while serving a warrant, appears to be more attributable to bad tactics and aggressive warrant executions rather than individual officer misconduct or inexperience.<sup>147</sup> In addition, the only officer indicted for a crime in Taylor’s death, Brett Hankison (alleged to have fired “wantonly”), was an experienced officer who had achieved the rank of detective.<sup>148</sup> Freddie Gray’s death in a Baltimore, Maryland, police van involved the alleged misconduct of several officers of varying levels of experience, including a forty-two year old lieutenant.<sup>149</sup>

---

143. *Id.* at 16 n.8.

144. Peter Liang was convicted of manslaughter for the shooting but was given no prison time after a judge reduced the conviction to criminally negligent homicide. See Corrine Ramey & Thomas MacMillan, *Former NYPD Officer Avoids Prison for Deadly Shooting of Unarmed Man*, WALL ST. J., <https://www.wsj.com/articles/former-nypd-officer-avoids-prison-for-deadly-shooting-of-unarmed-man-1461093599> (last updated Apr. 19, 2016, 10:12 PM) [<https://perma.cc/QV5N-N5UA>].

145. See *supra* tbl.5 (author’s calculation using New York City civilian complaint data).

146. Mark Morales, *Rookie Policy Under Attack After Fatal Shooting*, WALL ST. J., [https://www.wsj.com/articles/district-attorney-meets-with-witness-to-fatal-police-shooting-1416857396?mod=Searchresults\\_pos11&page=2m](https://www.wsj.com/articles/district-attorney-meets-with-witness-to-fatal-police-shooting-1416857396?mod=Searchresults_pos11&page=2m) (last updated Nov. 24, 2014, 8:51 PM) [<https://perma.cc/J9AS-KZ2U>].

147. See *What Happened to Breonna Taylor? What We Know About the Case and Her Death*, WALL ST. J., <https://www.wsj.com/articles/what-happened-to-breonna-taylor-louisville-settles-over-police-shooting-11600185062> (last updated Oct. 2, 2020, 6:15 PM) [<https://perma.cc/2FQP-CKVU>] (describing what happened the night Breonna Taylor was killed).

148. In June 2021, Hankison was fired. *Id.* (“The chief said Mr. Hankison violated procedures when he ‘wantonly and blindly’ fired 10 rounds into Ms. Taylor’s apartment.”). Hankison is appealing his firing.

149. Jess Bidgood, *Another Baltimore Police Officer Acquitted in Freddie Gray Case*, N.Y. TIMES (July 18, 2016), <https://www.nytimes.com/2016/07/19/us/freddie-gray-baltimore-police.html#:~:text=Brian%20Rice%2C%20the%20highest%20Drinking,three%20charges%2C%20including%20involuntary%20manslaughter> [<https://perma.cc/42UT-YEL6>] (describing acquittal of Lieutenant Brian Rice on criminal charges including involuntary manslaughter for failing to properly secure Freddie Gray with a seatbelt while being transported).

*C. Conclusion*

The available evidence is that there are a small number of police officers who are responsible for an outsized share of serious police misconduct. The ability to scrutinize and terminate officers who are in the tail of misconduct could have an outsized impact on serious misconduct without significantly undermining the job security generally enjoyed by police officers. Moreover, high-profile police killings and other misconduct are often committed by either (1) officers with serious records of supervisor and civilian complaints, or (2) relatively young and inexperienced officers. In the cases of Officers Pantaleo, Loehmann, and Noor, they were *both* inexperienced and had big red flags in their disciplinary and employment records. A statistical analysis of high-profile, deadly events and the possibility that interventions can prevent them is not feasible. But reducing the number of such triggering events would have massive social benefits that redound beyond those directly involved.

## CONCLUSION

The stylized facts that emerge in this Essay are as follows: (1) policing is an unusually secure, well-paid job with little turnover prior to an early retirement age; (2) inexperienced police officers are, all else equal, more likely to commit misconduct and at the same time more likely to receive high-risk assignments; and (3) bad cops are a serious problem, are identifiable, and are rarely removed or disciplined. In short, the systems generally imposed by union contracts and civil service laws have created a police force that is well-paid, has long tenure, but is hard to manage. The nexus of compensation, seniority, promotion, discipline, and pension policies that characterize much police personnel management cannot be rationalized under traditional labor and employment contract analysis. Existing compensation and pension policies, however, could be rationalized if supervisors were empowered to manage police through assignments, penalties, and promotion.

Employment arrangements that pay a wage premium and backload compensation are observed in both the private and public sectors. Indeed, such a compensation structure can be justified on several grounds. Paying a wage premium allows employers to hire higher-quality employees, induces more effort from employees by providing greater incentives to avoid termination, and reduces costly workforce turnover. Moreover, long-term arrangements fostered by backloaded compensation (such as pension vesting and seniority pay)

can create incentives to invest more in employee training by both the employer and employee. Indeed, some municipalities maintain police academies as their primary method of recruitment and hiring, and consequently invest significant sums up-front in police training. Creating long-term employment arrangements under such circumstances may be optimal so employers and employees can share the benefits of their training over time, and employers remain incentivized to provide such training up front and over the course of an employee's career.

In addition, seniority pay, so prevalent in police union contracts, is also widely observed in the private sector. When employer tenure and employee age are highly correlated with worker productivity and incentive pay is not feasible, compensation based on seniority status can be reasonable. This is arguably the case in policing. Indeed, the results in Part II, which find that police misconduct declines with experience, demonstrate that at least one aspect of police quality is tied to experience. Moreover, formal incentive pay is widely regarded as impossible in policing because it would inevitably create perverse incentives (few would argue for compensating officers based on arrest rates).

The compensation structures observed in policing are only rational if employees also face penalties for poor performance through discharge, demotion, suspension, or reduced promotion chances and incentives for good performance through increased pay via promotion. Absent such postemployment incentives, a rigorous prescreening program combined with a long probationary period would be needed. Indeed, the two approaches are not mutually exclusive. Generally speaking, however, major police departments in the United States fail to do either.

Positive incentives can also be structured via promotion and other performance-related perks. For example, police officers can greatly increase their compensation via promotion in rank. Thus, good conduct can be incentivized through a promotion system: special assignments, detective status, sergeant, and on up. At present, however, the promotion process itself is highly regulated by union contracts and civil service statutes.<sup>150</sup> In Chicago, for example, nontest factors such as performance evaluations, awards, and discipline history, are considered in promotion for those who score above a predetermined threshold. However, given the contractual prohibitions on the use of misconduct allegations that were not sustained, the officer's full disciplinary record is technically not open to consideration in

---

150. See Rushin, *supra* note 7, at 1208.

promotion. Once promoted, demotion is quite challenging and can lead to costly legal battles.<sup>151</sup>

Absent increased incentive structures, more aggressive prescreening of officers for positive characteristics might be helpful. Qualifications and training regimens could, in theory, act as a prescreen and are not typically subject to negotiation. But the criminal justice literature does not seem to agree on what employee characteristics are most important for predicting future officer performance.<sup>152</sup> Some screens could increase the percentage of White officers in a department, which could exacerbate racially disparate policing.<sup>153</sup> Moreover, entry-level police officer training and instructional standards vary dramatically across the United States.<sup>154</sup> Some departments require college degrees plus additional certifications to become a police officer, followed by a probationary period that can vary in length. In most major cities, however, only a five- to six-month police academy training course (averaging 833 hours of basic training) plus a minimum age are required.<sup>155</sup> For example, Los Angeles police can apply to the training academy with a high school equivalence test at the age of twenty-one.<sup>156</sup> Chicago, by contrast, requires sixty college credits or military service to apply to the police training academy.<sup>157</sup> Chicago officers who are then accepted into the force have a thirteen-month probationary period, during which they are at-will employees.<sup>158</sup> Nationally, about 86% of enrollees graduate from police academy basic training courses, casting doubt on the idea that academies are screening out weak applicants.<sup>159</sup> In some cities with lower-credential standards, such as Los Angeles, the graduation rate is lower at 75%, while in New York City and Chicago it is 93% and 97% respectively.<sup>160</sup> Absent screening by additional

---

151. *Id.*

152. For literature reviews and discussion of the potential for screening police officers, see NAT'L RSCH. COUNCIL, *supra* note 13, at 128–38; Donner & Jennings, *supra* note 79, at 203–05.

153. See Owens & Ba, *supra* note 4, at 15–17 (discussing different screening regimes and their effect on the force's racial composition).

154. See EMILY D. BUEHLER, STATE AND LOCAL LAW ENFORCEMENT TRAINING ACADEMIES, 2018, at 2–4 (2021).

155. *Id.* at 9.

156. See *LAPD Qualifications*, JOINLAPD, <https://www.joinlapd.com/qualifications> (last visited June 5, 2022) [<https://perma.cc/M9SQ-PS3A>].

157. *Entry Level Police Officer Frequently Asked Questions*, CHI. POLICE DEP'T, <https://home.chicagopolice.org/bethechange/frequently-asked-questions/> (last visited June 5, 2022) [<https://perma.cc/EDC2-EWTB>].

158. *Id.*

159. See BUEHLER, *supra* note 154, at 7.

160. See Dan Hinkel, *Chicago Police Recruits Rarely Flunk Out, Raising Concerns About Training*, CHI. TRIB. (Mar. 14, 2017, 6:17 AM), <https://www.chicagotribune.com/news/ct-chicago-police-academy-met-20170314-story.html> [<https://perma.cc/D3WD-3KKU>].

qualifications or more rigorous training, a longer probationary period may be helpful. Chicago police officers (Part II.B) had much lower complaint rates during their probationary period, and additional monitoring of inexperienced officers could produce substantial benefits given their higher rates of misconduct or error. But probationary period length can be subject to union contract negotiation.

The purpose of this Essay was not to devise an optimal police personnel management system, which will undoubtedly require experimentation and may vary based on a particular department's environment. In this Conclusion, I have only hoped to raise plausible approaches to improving policing and point out that, given the wage and promotion structures associated with policing, basic personnel economics suggests that fair and effective policing could be incentivized by supervisors if they have greater freedom. A freer hand for those in charge of the police to promote, demote, terminate, and otherwise discipline officers would rationalize the wages and tenure structure observed in Part I of this Essay. A freer hand over assignments and promotion would also empower supervisors to create the right mix of experience within units and assignments. This would provide inexperienced officers with additional on-the-job training and mitigate the harms caused by inexperience. However, it must be acknowledged that if discipline and dismissal become too easy or are perceived as arbitrary, police officers might invest less in training or be unwilling to accept delayed compensation in the form of pensions, seniority, and promotion. Personnel management must balance discipline, supervisor discretion, and process.

To be beneficial, a freer hand among supervisors requires that supervisors themselves are incentivized to produce a fair and effective police force and actually know how to do so. I cannot avow that supervisors will wish to create and maintain a fair and effective police force always and everywhere. However, there are strong political incentives to properly manage a police force, and these political incentives are combined with financial incentives under civil rights litigation, which in smaller jurisdictions are further buttressed by the need to buy insurance.<sup>161</sup> Given such incentives, and legal restrictions on patronage, a freer hand among supervisors is unlikely to return us to days when police jobs were doled out for nepotism and political advantage.

As a final note, this Essay provides some important evidence for those who argue that policing has systemic problems that produce a racially disparate impact. There are features of American policing, such

---

161. See generally John Rappaport, *supra* note 99.



as low turnover, seniority perks, and the retention and employment of problematic officers, that are common to most departments across the United States. But the ongoing discussions of systemic police misconduct too often disregard the possibility that the legal and institutional context imposed on police departments by laws has exacerbated the systemic problems. The facts produced here suggest that at least some of the systemic problems of modern policing in America are neither an inevitable outcome of a historical path nor innate to police culture. Rather, constraints created outside the police department, imposed by forces largely unconcerned with policing (civil service laws) or the public interest (union contracts), may be important explanators of our present systemic failures.