

# Under Pressure: Victim Withdrawal and Police Officer Workload\*

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## Abstract

This paper addresses the relationship between a police officer's workload and the likelihood of statement withdrawal of domestic abuse victims. We focus our analysis on high-risk cases reported to Greater Manchester Police from January 2014 to March 2019. Using this unique dataset, combined with institutional knowledge, we show that adding 10 more cases to a police officers' monthly workload is associated with an increase of the probability of statement withdrawal of 3 percentage points, or 17% of the average withdrawal rate in our sample. The increased workload is likely to be the outcome of a substantial reduction in the police budget, implying that this paper provides additional indirect evidence of the secondary costs of austerity policies.

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The topic of domestic abuse requires little motivation. Across the United States, nearly 20 people are physically abused by an intimate partner every minute (National Coalition Against Domestic Violence (2023)). In the EU, at least two women are killed daily by an intimate partner or family member (Council of the European Union (2023)), while in the United Kingdom almost a half of murders of women are committed by a partner or family member (Office for National Statistics (2022)).

Because of the toll that domestic violence takes on victims and society, and the potential risk of escalation of harm, high-risk domestic abuse cases are of high priority to any police force. However, we have lately observed victims withdrawing their statement at an increasing rate, which motivates this study.

This paper makes two contributions to the debate. First, it provides empirical evidence of the effect of an increasing workload of police officers on the probability of victims withdrawing their statement,<sup>1</sup> using the data of one of the largest police forces in England and Wales, the Greater Manchester Police Force. Second, it provides a comprehensive overview of the characteristics of crimes, victims and perpetrators that are associated with higher or lower probability of victims' withdrawal.

The increase in statement withdrawals happened against the backdrop of substantial institutional changes in the sector. Across Greater Manchester, the number of recorded crimes increased by 29% from 2014 to 2019 (UK Crime Stats Platform (2023)), with a decrease of 9% in the number of available police officers over the same period (UK Home Office (2023)). The average workload of responding officers increased from the average of 5 to 13 crimes per month and officer, with a peak of 16 cases in 2018, implying that officers have less time to engage with the victims.<sup>2</sup> These numbers are broadly in line with the wider trend across England and Wales.

The period we are considering overlaps with the era of austerity policies across England and Wales, a series of measures implemented by the Conservative and Liberal Democrat Coalition government from 2010 onwards. These policies involved substantial cuts in public spending, including welfare benefits and local government funding. Funding for the police, courts, and prisons also faced reductions. As a result of the policies, the spending of the Home Office, the UK government department responsible for policing, in the 2018-2019 financial year was 25% lower in real terms than in the 2010-2011 financial year. This reduction surpasses the average decrease of 15% observed across all departments.<sup>3</sup>

We use data on the universe of crimes across Greater Manchester between January 2014 and March 2019. We focus on the cases of domestic abuse with female victims, identified by the officer

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<sup>1</sup>The official title of this investigating outcome is *the victim does not support (or has withdrawn support from) police action*. Throughout the paper, we refer to the outcome as *victim withdrawal* or *statement withdrawal* for brevity.

<sup>2</sup>Limited time for engagement was identified as one of concerns in Operation Soteria Bluestone Year 1 Report 2021 – 2022 (Stanko (2022)).

<sup>3</sup>House of Commons Committee report <https://www.parliament.uk/globalassets/documents/commons/scrutiny/home-office-slides-2021-22.pdf>

as having a high risk of future harm. Because of the gravity, these high-risk cases are less likely to suffer from variability in recording and attendance over time and areas. As a measure of workload for a given officer, we use the number of crimes (out of all crimes, not only high-risk crimes) where they were assigned as an initial responder in a given month.

By exploiting within-officer variation in workload, we show that adding 10 more cases to officers' monthly workload results, on average, in an increase of the probability of a victim withdrawing domestic abuse high-risk case by 3 pp. In our period of observation, the share of high-risk domestic abuse cases where female victims withdrew the complaint increased from 5% to 38% or by 33 pp. This implies that our estimated effect of 3 pp explains 9% of the total increase. It also equals 17% of the average withdrawal rate over the period of observation. If we compare the estimated effect to the withdrawal rate at the beginning of the observation period, it constitutes approximately 60%. The results hold after controlling for the characteristics of the crime, the victim, the potential perpetrator, and the details of the police response such as the response time and length of investigation.

We identify the characteristics that are associated with a higher probability of victim withdrawal. As a baseline we establish that victims of sexual offences are 20% more likely to withdraw their complaint, compared to victims of other types of violence against a persons (the wider crime category). Victims are more likely to withdraw their claim if they themselves were under the influence of alcohol, but less likely to do so in the reverse case where the alleged perpetrator was under the influence of alcohol or other substances. The victims are more likely to withdraw the claims against family members (brother, father, or son), while claims against ex partners are withdrawn less frequently when compared with current partners. We observe seasonality in our results with a higher probability of withdrawal towards the end of the year, namely between September and December.

We make several contributions to the existing literature. Firstly, we are the first to demonstrate a link between the workload of police officers and an increased likelihood of victims of domestic abuse withdrawing their complaints.<sup>4</sup> Secondly, we contribute to the literature on police productivity adding to the evidence that typically focus on the crime clearance rate as a measure of productivity.<sup>5</sup> Withdrawal of complaints is statistically one of the primary reasons for uncleared crimes, surpassing insufficient evidence as of the end of 2018. Thirdly, our study contributes to the literature on the impact of excessive workload on job performance.<sup>6</sup> Finally, our work contributes to the literature on the on the adverse consequences of spending-based austerity policies by studying the impacts of

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<sup>4</sup>A somewhat similar association was identified at a local-area level by Maxfield et al. (1980) and Taniguchi and Salvatore (2017). They show that in areas with heavier workloads, police officers were more inclined to not record incidents as verified crimes, suggesting that officers aim to manage their workload when it is perceived as excessively high.

<sup>5</sup>Typically, researchers in this field use the crime clearance rates as a measure of police performance and investigate how those are affected by various factors, such as response time (Blanes i Vidal and Kirchmaier (2018)), police station closures (Facchetti (2023)), optimised patrolling strategies (Mastrobuoni (2020)), and localised policing experiments (Adda et al. (2014)).

<sup>6</sup>Some recent examples of this well-established literature include the studies of how workload effects for bank workers (Xu et al. (2022)), paramedics (Bavafa and Jónasson (2023)) and hospital staff (Berry Jaeker and Tucker (2017)).

policing-budget cuts.<sup>7</sup>

# 1 Background and Data

We use population of recorded crimes by Greater Manchester Police (GMP) from January 2014 to March 2019, with a specific focus on domestic abuse cases involving female victims, identified by the attending officer as having a high risk of future violence, i.e. high-risk cases. The dataset comprises 15,142 high-risk domestic abuse cases.

Our variable of interest is the probability of victims not supporting further investigation, denoted as victim withdrawal. According to the Home Office guidance on police statistics, this outcome is defined as *the victim does not support (or has withdrawn support from) police action*.<sup>8</sup> In practice, this outcome is assigned by the officer and encompasses cases where the victim actively withdrew their support, as well as instances where the victim ceased to interact with the officer thereby discontinuing active support for further actions. Over the sample period, 19% of cases were closed with this outcome. Other large categories of domestic abuse outcomes include *Charge / Summons*, accounting for 46% of cases during the period, and *Evidential difficulties*, representing 29%. Collectively, these three outcomes cover over 94% of all cases.

To quantify an officer's workload, we use the count of crimes (including of all crimes, not only high-risk ones) to which they were designated as an initial responder in a given month. The average workload in our dataset stands at 11.14 cases per month. The workload distribution is significantly right-skewed, with the 99th percentile recorded at 113 cases and the 95th percentile at 54 cases - approximately five times the mean. For our primary results, we truncate the distribution at 95% annually to eliminate outliers, resulting in 14,464 observations.<sup>9</sup> See Appendix Table A.3 for the descriptive statistics for the workload. In the subsequent analysis, we rely on the within-officer workload variation over time, and hence our main specification includes only officers whom we observe for at least 3 months. Descriptive statistics are provided in Appendix A.2.

The workload of officers, as well as the frequency of cases where victims withdrew their complaints, increased significantly between January 2014 and March 2019. Figure 1 illustrates the temporal dynamics of three largest outcome categories: charges, insufficient evidence, and victim withdrawal. While the number of cases resulting in charges and those with insufficient evidence remained relatively steady over time, the number of victims withdrawing their complaints increased from under 10 to over 100 cases per month. The figure also charts the average monthly number of crimes per officer, which nearly tripled throughout the observed period. Figure 1 plots the data for the lower 95% of

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<sup>7</sup>Existing research largely focus on the political consequences of austerity, such as Brexit vote (Fetzer (2019)), political unrest (Ponticelli and Voth (2020)) or rise of populism (Guriev and Papaioannou (2022)). Notable exceptions are a work by Facchetti (2023) that focuses on the austerity-driven reduction of local police resources, and a paper by Cummins (2018), that studies the impact of austerity on mental health service provision.

<sup>8</sup>Police Recorded Crime and Outcomes: Open Data Tables User Guide, 2016 link

<sup>9</sup>The Appendices present the results and descriptive statistics for the complete distribution.

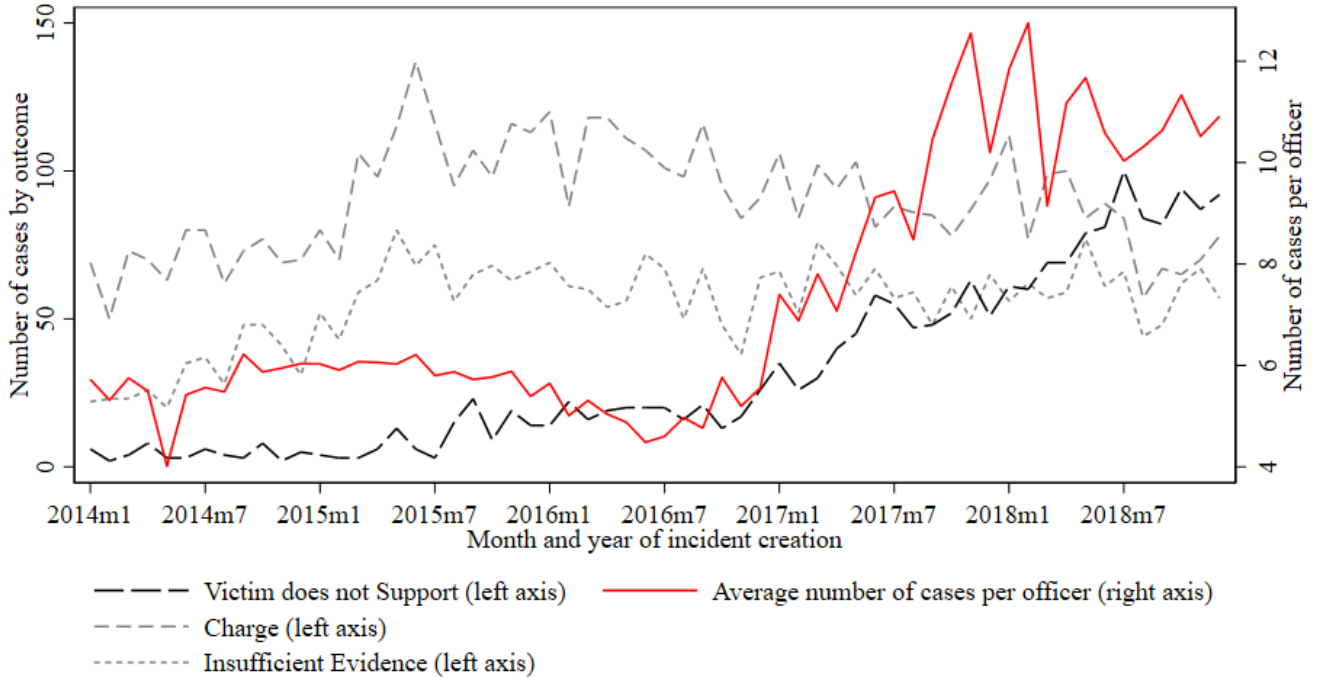


Figure 1: Number of cases by outcome (left axis) and average number of cases per officer (right axis), monthly. Bottom 95% of workload workload. Officers observed for at least 3 months.

the workload distribution for the officers observed for at least 3 months.<sup>10</sup>

To establish that the increases in case numbers and victim withdrawals are not co-determined by a structural shift in case composition, we control for their respective characteristics. For each case, we document details regarding the crime (date of reporting, type, response grade, reporting method, and source), victim attributes (age, gender, ethnicity, indicators for injury, alcohol and substance influence), and alleged perpetrator characteristics (age, gender, ethnicity, indicators for injury, alcohol and substance influence, and the victim-perpetrator relationship). Additionally, we capture specifics of the police response, including response time and the time it took to close the case, along with the recording police division. To account for geographical variations in socio-economic attributes, we include data on local deprivation. Descriptive statistics for all variables are presented in Appendix Table A.4.

## 2 Results

We estimate the following linear probability model:

$$W_{ijt} = \beta_0 + \beta_1 N_{jt} + X'_{it} \beta_2 + \gamma_j + \nu_{itr} + u_{ijt}, \quad (1)$$

<sup>10</sup>The figures for the full distribution are available in Appendix B.

where  $W_{ijt}$  is a binary variable that indicates if victim  $i$  assigned to officer  $j$  at time  $t$  withdrew the case. To facilitate interpreting regression coefficients as percentage points,  $W_{ijt}$  is coded to take values 0 and 100.  $N_{jt}$  measures the workload of officer  $j$  at time  $t$ , i.e. the number of cases where officer  $j$  is indicated as initial officer in the current month.  $\beta_1$  is the coefficient of interest. The vector  $X_{it}$  controls for crime, victim, alleged perpetrator, police response characteristics, and the local level of deprivation.  $\gamma_j$  denotes officer fixed-effect.  $\nu_{itr}$  includes area-level fixed-effects (i.e., one of the 12 divisions) and time fixed-effects (accounting for day of the week, day of the month, month, and year effects).

Table 1 presents an extract of the estimation results, focusing on variables that exhibit a significant relationship with the probability of withdrawal.<sup>11</sup> We first discuss the estimates of  $\beta_1$ , presented in the first row, and then proceed to describing the other correlates of the withdrawal decision.

In Table 1, Column 1 presents the results of regressing the withdrawal indicator on officers' workload without any controls. A higher workload is associated with a higher probability of withdrawal, with an additional 10 cases corresponding to a 4.00 percentage point (pp) higher probability of withdrawal.

Introducing controls for crime, victim, and perpetrator characteristics in Column 2, along with area, day, and month fixed-effects in Column 3, leads to a marginal decrease in the coefficient. Even in the presence of these controls, higher workload remains associated with higher probability of withdrawal.

Column 4 presents the results of a panel specification that includes officer and year fixed-effects. Holding officers' unobservable characteristics constant within a given year, an addition of 10 cases to officers' workload results in a withdrawal rate increase of 2.57 pp.

The specifications in Columns 1 to 4 include variables that are likely exogenous to officers' workload. Column 5 introduces police response characteristics, i.e., the response time and the number of days taken to close the case. These variables are potential mediators affected by workload and influencing the victim's decision to withdraw. Including the mediators marginally reduces the coefficient's magnitude and statistical significance. However, the effect persists, suggesting that the impact of workload on the probability of withdrawal is not mediated by other observed response characteristics.<sup>12</sup> We consider the result in Column 4 to be our headline finding.

The remaining part of Table 1 presents estimates of coefficients for variables linked to the probability of withdrawal. Examining characteristics of the crime, victims of sexual offences are 20.26 pp more likely to withdraw cases compared to victims of other types of violence against a persons. Crimes reported to police patrol have a 9.38 pp higher likelihood of ending in withdrawal than those reported to the emergency line (999).

<sup>11</sup>Full results that also report the coefficients that are not significant are presented in Table C.1 of the Appendix.

<sup>12</sup>The results remain qualitatively similar when controlling for the amount of time that the officer spent on the scene as an additional response characteristic. This variable is missing for over 8% of the sample, that is why we do not include it in the main set of specifications. The results including this variable are available upon request.

Table 1: Estimates of Equation 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
	Crossection	Crossection	Crossection	Panel	Panel
Number of crimes per officer, current month	0.400*** (0.038)	0.362*** (0.042)	0.335*** (0.049)	0.257*** (0.074)	0.241** (0.080)
<i>Crime type: Sexual offences</i>		15.042*** (1.545)	15.859*** (1.543)	20.263*** (2.006)	20.158*** (1.985)
<i>How reported: To police patrol</i>		11.161*** (2.282)	11.612*** (2.231)	9.382*** (3.009)	9.404*** (3.011)
Flag for alcohol influence (victim)		2.772** (1.052)	2.764** (1.107)	3.595** (1.331)	3.615** (1.336)
Flag for injury (victim)		-6.721*** (0.894)	-6.703*** (0.895)	-5.544*** (1.177)	-5.489*** (1.173)
Age (perpetrator)		-0.663* (0.343)	-0.636* (0.338)	-0.734** (0.311)	-0.732** (0.310)
Age-squared (perpetrator)		0.011** (0.005)	0.011** (0.004)	0.011** (0.004)	0.011** (0.004)
Flag for alcohol influence (perpetrator)		-2.980*** (0.819)	-2.820*** (0.787)	-2.559** (1.139)	-2.497** (1.134)
Flag for substance influence (perpetrator)		-2.512** (0.834)	-2.562** (0.844)	-1.834** (0.750)	-1.773** (0.770)
<i>Relation of perpetrator to victim:</i> Brother / Father / Son		4.979** (1.959)	5.748** (2.019)	3.855* (1.857)	3.886* (1.836)
<i>Relation of perpetrator to victim:</i> Ex Husband / Male Ex Partner		-3.530*** (0.813)	-3.266*** (0.777)	-3.380*** (0.875)	-3.511*** (0.888)
<i>Month: September</i>			0.393 (1.940)	7.733*** (2.450)	7.451** (2.449)
<i>Month: October</i>			-0.364 (1.521)	5.595** (1.953)	5.335** (1.943)
<i>Month: November</i>			0.695 (1.848)	5.651** (2.518)	5.462* (2.516)
<i>Month: December</i>			0.68 (1.265)	5.761*** (1.729)	5.579*** (1.702)
Number of observations	11,867	11,867	11,867	11,867	11,867
R-squared	0.01	0.05	0.07	0.31	0.31
Crime, victim and perpetrator ch.		X	X	X	X
Area, day and month FE			X	X	X
Officer and year FE				X	X
Response characteristics					X

*Note:* Perpetrator refers to alleged perpetrator. Omitted categories: *Crime type* - Violence against the person; *How reported* - 999 call; *Relation of perpetrator to victim* - Boyfriend / Husband / Male Partner; *Month* - January; *Day* - Sunday. Full results are reported in Table C.1 of the Appendix. Standard errors in parentheses clustered at the division level. \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

Regarding victim characteristics, those who were under the influence of alcohol are 3.60 pp more likely to withdraw their complaints, while those who suffered an injury are 5.54 pp less likely to do so. Concerning alleged perpetrator characteristics, victims are less likely to withdraw complaints if the alleged perpetrator was under the influence of alcohol (reduced probability by 2.56 pp) or substances (reduced probability by 1.83 pp). Compared to complaints against current partners, complaints against relatives (brother, father, and son) are 3.86 pp more likely to be withdrawn, while complaints against ex-partners are 3.38 pp less likely to be withdrawn.

We observe an inverse U-shape in withdrawal probability in alleged perpetrator age, with complaints against relatively younger and older perpetrators more likely to be withdrawn compared to those against middle-aged perpetrators, reaching a minimum at around 35 years old. We also observe seasonal patterns, with a higher probability of withdrawal at the end of the year, specifically between September and December.

Our findings stay qualitatively similar after expanding the dataset to include officers that are observed for at least one month as well as including officers in the top 5% of the workload distribution. See Appendix D for more details. We find some heterogeneities in how the workload affects withdrawal probabilities by how the crime was reported and by the relationship of alleged perpetrator and the victim. We also find seasonal heterogeneities. The results of the analysis are presented in Appendix E.

### 3 Conclusion

In this paper we address the question whether an officer's workload affects policing outcomes; in this case whether it affects the victim withdrawal probability in high-risk domestic abuse cases. We document a positive relation between the two dimensions, in that an increase of 10 additional cases per month and officer leads to a 3 pp increase in withdrawal probability.

While the data and setup does not allow us to conclusively argue for a causal relation, we nevertheless believe that this is likely to be the case as we do not observe any other fundamental change in policy that would negatively affect the handling of domestic abuse cases across Greater Manchester. Our main result comes from comparing victim withdrawal rates *within* the same officer in months with more or fewer cases. Any policy change that could affect this result would need to impact both workload and withdrawal rates at the individual level. Our suggested interpretations of these findings, informed by the institutional knowledge, is that subjecting officers to time pressure leads to policing practices that affect how victims react and engage with the process.

It is likely that the effect of workload on withdrawals for lower-priority crimes is even higher than our estimate for high-risk domestic abuse cases withdrawal. The heightened focus on domestic abuse and other priority offences places puts pressure on police forces and officers to conduct thorough investigations, a pressure not necessarily shared across all types of offences. As such, the secondary



costs of austerity policies, in terms of reduced victim engagement, may be more pronounced than initially indicated by our findings.

## References

Adda, J., McConnell, B., and Rasul, I. (2014). Crime and the Depenalization of Cannabis Possession: Evidence from a Policing Experiment. *Journal of Political Economy*, 122(5):1130–1202.

Bavafa, H. and Jónasson, J. O. (2023). The Distributional Impact of Fatigue on Performance. *Management Science*.

Berry Jaeker, J. A. and Tucker, A. L. (2017). Past the Point of Speeding Up: The Negative Effects of Workload Saturation on Efficiency and Patient Severity. *Management Science*, 63(4):1042–1062.

Blanes i Vidal, J. and Kirchmaier, T. (2018). The Effect of Police Response Time on Crime Clearance Rates. *The Review of Economic Studies*, 85(2):855–891.

Council of the European Union (2023). Violence against women. <https://www.consilium.europa.eu/en/infographics/figures-gender-based-violence/>.

Cummins, I. (2018). The Impact of Austerity on Mental Health Service Provision: A UK Perspective. *International Journal of Environmental Research and Public Health*, 15(6):1145.

Facchetti, E. (2023). Police infrastructure, police performance and crime: Evidence from austerity cuts. *mimeo*.

Fetzer, T. (2019). Did Austerity Cause Brexit? *American Economic Review*, 109(11):3849–3886.

Guriev, S. and Papaioannou, E. (2022). The Political Economy of Populism. *Journal of Economic Literature*, 60(3):753–832.

Mastrobuoni, G. (2020). Crime is Terribly Revealing: Information Technology and Police Productivity. *The Review of Economic Studies*, 87(6):2727–2753.

Maxfield, M. G., Lewis, D. A., and Szoc, R. (1980). Producing Official Crimes: Verified Crime Reports as Measures of Police Output. *Social Science Quarterly*, 61(2):221–236. Publisher: [University of Texas Press, Wiley].

National Coalition Against Domestic Violence (2023). National statistics. <https://ncadv.org/STATISTICS>.

Office for National Statistics (2022). Homicide in England and Wales: year ending March 2022. <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/articles/homicideinenglandand>

- Ponticelli, J. and Voth, H.-J. (2020). Austerity and anarchy: Budget cuts and social unrest in Europe, 1919–2008. *Journal of Comparative Economics*, 48(1):1–19.
- Stanko, B. (2022). Operation Soteria Bluestone Year 1 Report 2021 – 2022.
- Taniguchi, T. and Salvatore, C. (2017). Policing a negotiated world: A partial test of klinger’s ecological theory of policing. *Journal of Quantitative Criminology*.
- UK Crime Stats Platform (2023). Greater Manchester Police. [https://www.ukcrimestats.com/Police\\_Force/Greater\\_Manchester\\_Police](https://www.ukcrimestats.com/Police_Force/Greater_Manchester_Police).
- UK Home Office (2023). Statistics on police workforce numbers in the 43 police forces in england and wales and the british transport police. <https://www.gov.uk/government/collections/police-workforce-england-and-wales>.
- Xu, Y., Tan, T. F., and Netessine, S. (2022). The Impact of Workload on Operational Risk: Evidence from a Commercial Bank. *Management Science*, 68(4):2668–2693.

# Online Appendix

Appendix A contains the descriptive statistics for the dataset from bottom 95% of the workload and for all observations, for officers observed for at least 1 or at least 3 months. Appendix B replicates Figure 1 for the dataset from bottom 95% of the workload and for all observations, for officers observed for at least 1 or at least 3 months. Appendix C reports full results from Table 1. Appendix D reports the results for different workload distributions and number of months. Appendix E reports the results of heterogeneity analysis.

## A Descriptive Statistics

### A.1 Officers observed for at least 1 month.

Table A.1: Descriptive statistics for workload variable for officers from bottom 95% of the workload and for all observations. Officers observed for at least 1 month.

	N	Mean	SD	p50	p90	p95	p99
Panel A: Bottom 95% of workload							
Number of crimes per officer, current month	14,464	7.44	11.05	5.00	10.00	13.00	73.00
Panel B: Full distribution of workload							
Number of crimes per officer, current month	15,142	11.14	23.80	6.00	12.00	54.00	133.00

Table A.2: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 1 month.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Victim does not support, share *100	18.67	38.97	19.09	39.3
Number of crimes per officer, current month	7.44	11.05	11.14	23.80
Crime type: Violence against the person	0.84	0.37	0.84	0.37
Crime type: Sexual offences	0.07	0.25	0.07	0.25
Crime type: Robbery	0.01	0.08	0.01	0.08
Crime type: Theft offences	0.02	0.15	0.02	0.15
Crime type: Criminal damage and arson offences	0.06	0.24	0.06	0.24
How reported: 999 call	0.63	0.48	0.63	0.48
How reported: At police station	0.01	0.08	0.01	0.09
How reported: Found by police	0.01	0.11	0.01	0.11
How reported: Other telephone call	0.30	0.46	0.31	0.46
How reported: To ambulance service	0.02	0.13	0.02	0.13
How reported: To police patrol	0.02	0.13	0.02	0.13
How reported: Other	0.01	0.10	0.01	0.10
Number of observations	14,464		15,142	

Table A.2: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 1 month.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Reported by: Other	0.26	0.44	0.25	0.44
Reported by: Victim	0.71	0.45	0.71	0.45
Reported by: Missing	0.03	0.18	0.03	0.17
Response grade: Immediate	0.38	0.48	0.37	0.48
Response grade: Priority	0.56	0.5	0.57	0.50
Response grade: Prompt	0.03	0.16	0.03	0.16
Response grade: Missing	0.03	0.18	0.04	0.19
Days until closing	0.73	1.96	0.82	2.13
Response time	307.34	1092.14	348.16	1183.9
Response time missing	0.03	0.17	0.03	0.18
Age (victim)	32.48	10.58	32.46	10.56
Age-squared (victim)	1166.53	837.42	1165.38	835.87
Age missing (victim)	0.00	0.01	0.00	0.01
Flag for alcohol influence (victim)	0.21	0.41	0.21	0.41
Flag for substance influence (victim)	0.04	0.20	0.04	0.20
Flag for injury (victim)	0.37	0.48	0.37	0.48
Number of victims	1.31	0.64	1.31	0.64
Ethnicity (victim): Asian	0.04	0.21	0.04	0.21
Ethnicity (victim): Black	0.03	0.18	0.03	0.18
Ethnicity (victim): Chinese, Japanese Or South East Asian	0.00	0.04	0.00	0.04
Ethnicity (victim): Middle Eastern	0.00	0.05	0.00	0.05
Ethnicity (victim): Unknown	0.27	0.44	0.27	0.44
Ethnicity (victim): White - North European	0.65	0.48	0.65	0.48
Ethnicity (victim): White - South European	0.01	0.08	0.01	0.08
Age (perpetrator)	33.99	10.21	34.00	10.21
Age-squared (perpetrator)	1259.86	800.55	1259.89	800.37
Age missing (perpetrator)	0.00	0.04	0.00	0.04
Female (perpetrator)	0.02	0.13	0.02	0.13
Flag for alcohol influence (perpetrator)	0.35	0.48	0.34	0.48
Flag for substance influence (perpetrator)	0.18	0.38	0.17	0.38
Flag for injury (perpetrator)	0.08	0.28	0.08	0.27
Number of perpetrators	1.34	0.77	1.34	0.76
Ethnicity (perpetrator): Asian	0.08	0.27	0.08	0.27
Ethnicity (perpetrator): Black	0.07	0.26	0.07	0.26
Ethnicity (perpetrator): Chinese, Japanese Or South East Asian	0.00	0.03	0.00	0.03
Ethnicity (perpetrator): Middle Eastern	0.01	0.09	0.01	0.09
Ethnicity (perpetrator): Unknown	0.13	0.34	0.13	0.34
Ethnicity (perpetrator): White - North European	0.69	0.46	0.69	0.46
Ethnicity (perpetrator): White - South European	0.01	0.10	0.01	0.10
Relation of perpetrator to victim: Boyfriend / Husband / Male Partner	0.35	0.48	0.35	0.48
Number of observations	14,464		15,142	

Table A.2: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 1 month.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Relation of perpetrator to victim: Brother / Father / Son	0.05	0.21	0.04	0.21
Relation of perpetrator to victim: Ex Husband / Male Ex Partner	0.51	0.50	0.51	0.50
Relation of perpetrator to victim: Other	0.03	0.17	0.03	0.17
Relation of perpetrator to victim: Missing	0.07	0.25	0.07	0.25
Division: A (North)	0.14	0.35	0.14	0.35
Division: E (New South)	0.13	0.34	0.13	0.34
Division: F (Salford)	0.12	0.32	0.12	0.32
Division: G (Tameside)	0.08	0.28	0.08	0.27
Division: I	0.00	0.02	0.00	0.02
Division: J (Stockport)	0.07	0.25	0.07	0.25
Division: K (Bolton)	0.07	0.25	0.07	0.25
Division: L (Wigan)	0.08	0.28	0.08	0.27
Division: M (Trafford)	0.05	0.22	0.05	0.22
Division: N (Bury)	0.07	0.25	0.06	0.24
Division: P (Rochdale)	0.10	0.31	0.10	0.31
Division: Q (Oldham)	0.09	0.28	0.09	0.29
Deprivation quintile: 1 - most deprived	0.19	0.39	0.19	0.39
Deprivation quintile: 2	0.19	0.39	0.19	0.39
Deprivation quintile: 3	0.19	0.39	0.19	0.39
Deprivation quintile: 4	0.19	0.39	0.19	0.39
Deprivation quintile: 5	0.19	0.39	0.19	0.39
Deprivation quintile: Missing	0.05	0.22	0.05	0.22
Month: Jan	0.10	0.3	0.10	0.29
Month: Feb	0.08	0.28	0.08	0.28
Month: Mar	0.10	0.3	0.10	0.3
Month: Apr	0.08	0.27	0.08	0.26
Month: May	0.08	0.28	0.08	0.27
Month: Jun	0.09	0.28	0.09	0.28
Month: Jul	0.08	0.28	0.08	0.28
Month: Aug	0.07	0.26	0.07	0.26
Month: Sep	0.08	0.27	0.08	0.27
Month: Oct	0.08	0.27	0.08	0.27
Month: Nov	0.08	0.27	0.08	0.27
Month: Dec	0.08	0.27	0.08	0.27
Day of the Week: Sun	0.16	0.37	0.16	0.37
Day of the Week: Mon	0.14	0.35	0.14	0.35
Day of the Week: Tue	0.14	0.35	0.14	0.35
Day of the Week: Wed	0.14	0.34	0.14	0.34
Day of the Week: Thu	0.13	0.33	0.13	0.33
Day of the Week: Fri	0.14	0.35	0.14	0.35
Day of the Week: Sat	0.15	0.36	0.15	0.36
Day of the month: 1	0.04	0.19	0.04	0.19
Number of observations	14,464		15,142	

Table A.2: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 1 month.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Day of the month: 2	0.03	0.18	0.03	0.18
Day of the month: 3	0.03	0.17	0.03	0.18
Day of the month: 4	0.03	0.18	0.03	0.18
Day of the month: 5	0.03	0.17	0.03	0.17
Day of the month: 6	0.03	0.18	0.03	0.18
Day of the month: 7	0.04	0.18	0.04	0.18
Day of the month: 8	0.03	0.18	0.03	0.18
Day of the month: 9	0.03	0.18	0.03	0.18
Day of the month: 10	0.03	0.18	0.03	0.18
Day of the month: 11	0.03	0.18	0.03	0.18
Day of the month: 12	0.03	0.18	0.03	0.18
Day of the month: 13	0.03	0.18	0.03	0.18
Day of the month: 14	0.03	0.18	0.03	0.18
Day of the month: 15	0.03	0.18	0.03	0.18
Day of the month: 16	0.03	0.18	0.03	0.18
Day of the month: 17	0.03	0.17	0.03	0.17
Day of the month: 18	0.03	0.18	0.03	0.18
Day of the month: 19	0.03	0.17	0.03	0.17
Day of the month: 20	0.03	0.18	0.03	0.18
Day of the month: 21	0.03	0.17	0.03	0.17
Day of the month: 22	0.03	0.18	0.03	0.18
Day of the month: 23	0.03	0.18	0.03	0.18
Day of the month: 24	0.03	0.18	0.03	0.18
Day of the month: 25	0.03	0.18	0.03	0.18
Day of the month: 26	0.03	0.18	0.03	0.18
Day of the month: 27	0.03	0.18	0.03	0.18
Day of the month: 28	0.03	0.18	0.03	0.18
Day of the month: 29	0.03	0.17	0.03	0.17
Day of the month: 30	0.03	0.17	0.03	0.17
Day of the month: 31	0.02	0.14	0.02	0.14
Year: 2014	0.11	0.32	0.11	0.32
Year: 2015	0.18	0.38	0.18	0.38
Year: 2016	0.19	0.39	0.19	0.39
Year: 2017	0.21	0.41	0.21	0.41
Year: 2018	0.24	0.43	0.24	0.43
Year: 2019	0.07	0.25	0.07	0.25
Number of observations	14,464		15,142	

Note: Perpetrator refers to alleged perpetrator.

## A.2 Dataset of officers observed for at least 3 months

Table A.3: Descriptive statistics for workload variable for officers from bottom 95% of the workload and for all observations. Officers observed for at least 3 months.

	N	Mean	SD	p50	p90	p95	p99
Panel A: Bottom 95% of workload							
Number of crimes per officer, current month	11,867	7.71	11.02	6	11	13	74
Panel B: Full distribution of workload							
Number of crimes per officer, current month	12,466	11.67	24.57	6	13	57	140

Table A.4: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 3 months.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Victim does not support *100	18.09	38.5	18.58	38.89
Number of crimes per officer, current month	7.71	11.02	11.67	24.57
Crime type: Violence against the person	0.84	0.36	0.84	0.36
Crime type: Sexual offences	0.07	0.25	0.07	0.25
Crime type: Robbery	0.01	0.08	0.01	0.08
Crime type: Theft offences	0.02	0.16	0.03	0.16
Crime type: Criminal damage and arson of- fences	0.06	0.24	0.06	0.24
How reported: 999 call	0.64	0.48	0.63	0.48
How reported: At police station	0.01	0.08	0.01	0.08
How reported: Found by police	0.01	0.11	0.01	0.11
How reported: Other telephone call	0.3	0.46	0.31	0.46
How reported: To ambulance service	0.02	0.13	0.02	0.13
How reported: To police patrol	0.02	0.13	0.02	0.13
How reported: Other	0.01	0.1	0.01	0.1
Reported by: Other	0.25	0.44	0.25	0.43
Reported by: Victim	0.72	0.45	0.72	0.45
Reported by: Missing	0.03	0.17	0.03	0.17
Response grade: Immediate	0.38	0.49	0.37	0.48
Response grade: Priority	0.57	0.5	0.57	0.49
Response grade: Prompt	0.03	0.16	0.02	0.16
Response grade: Missing	0.03	0.17	0.03	0.18
Days until closing	0.7	1.88	0.8	2.07
Response time	306.54	1070.45	353.04	1179.29
Response time missing	0.03	0.16	0.03	0.17
Age (victim)	32.43	10.58	32.43	10.56
Age-squared (victim)	1163.95	841.37	1163.33	839.26
Age missing (victim)	0	0.01	0	0.01
Flag for alcohol influence (victim)	0.22	0.41	0.21	0.41
Flag for substance influence (victim)	0.04	0.2	0.04	0.2
Number of observations	11,867		12,466	

Table A.4: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 3 months.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Flag for injury (victim)	0.37	0.48	0.37	0.48
Number of victims	1.31	0.64	1.31	0.64
Ethnicity (victim): Asian	0.04	0.2	0.04	0.21
Ethnicity (victim): Black	0.03	0.18	0.03	0.18
Ethnicity (victim): Chinese, Japanese Or South East Asian	0	0.04	0	0.04
Ethnicity (victim): Middle Eastern	0	0.05	0	0.05
Ethnicity (victim): Unknown	0.26	0.44	0.26	0.44
Ethnicity (victim): White - North European	0.66	0.48	0.65	0.48
Ethnicity (victim): White - South European	0.01	0.08	0.01	0.08
Age (perpetrator)	33.94	10.18	33.95	10.19
Age-squared (perpetrator)	1255.82	797.77	1256.66	797.92
Age missing (perpetrator)	0	0.04	0	0.04
Female (perpetrator)	0.02	0.13	0.02	0.13
Flag for alcohol influence (perpetrator)	0.36	0.48	0.35	0.48
Flag for substance influence (perpetrator)	0.18	0.38	0.18	0.38
Flag for injury (perpetrator)	0.08	0.27	0.08	0.27
Number of perpetrators	1.34	0.77	1.34	0.76
Ethnicity (perpetrator): Asian	0.08	0.27	0.08	0.27
Ethnicity (perpetrator): Black	0.07	0.26	0.07	0.26
Ethnicity (perpetrator): Chinese, Japanese Or South East Asian	0	0.04	0	0.04
Ethnicity (perpetrator): Middle Eastern	0.01	0.09	0.01	0.09
Ethnicity (perpetrator): Unknown	0.13	0.34	0.13	0.34
Ethnicity (perpetrator): White - North European	0.7	0.46	0.7	0.46
Ethnicity (perpetrator): White - South European	0.01	0.1	0.01	0.1
Relation of perpetrator to victim: Boyfriend / Husband / Male Partner	0.35	0.48	0.35	0.48
Relation of perpetrator to victim: Brother / Father / Son	0.04	0.21	0.04	0.21
Relation of perpetrator to victim: Ex Husband / Male Ex Partner	0.51	0.5	0.52	0.5
Relation of perpetrator to victim: Other	0.03	0.17	0.03	0.17
Relation of perpetrator to victim: Missing	0.06	0.24	0.06	0.24
Division: A (North)	0.15	0.35	0.15	0.35
Division: E (New South)	0.13	0.33	0.13	0.33
Division: F (Salford)	0.13	0.33	0.12	0.33
Division: G (Tameside)	0.08	0.28	0.08	0.27
Division: I	0	0.01	0	0.01
Division: J (Stockport)	0.06	0.25	0.06	0.25
Division: K (Bolton)	0.06	0.24	0.06	0.24
Division: L (Wigan)	0.08	0.27	0.08	0.27
Number of observations	11,867		12,466	



Table A.4: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 3 months.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Division: M (Trafford)	0.05	0.21	0.05	0.21
Division: N (Bury)	0.07	0.25	0.06	0.25
Division: P (Rochdale)	0.11	0.31	0.11	0.31
Division: Q (Oldham)	0.09	0.28	0.09	0.29
Deprivation quintile: 1 - most deprived	0.19	0.39	0.19	0.39
Deprivation quintile: 2	0.19	0.39	0.19	0.39
Deprivation quintile: 3	0.19	0.39	0.19	0.39
Deprivation quintile: 4	0.19	0.39	0.19	0.39
Deprivation quintile: 5	0.19	0.39	0.18	0.39
Deprivation quintile: Missing	0.05	0.22	0.05	0.22
Month: Jan	0.1	0.3	0.1	0.3
Month: Feb	0.08	0.27	0.08	0.27
Month: Mar	0.1	0.3	0.1	0.3
Month: Apr	0.08	0.27	0.08	0.27
Month: May	0.08	0.28	0.08	0.27
Month: Jun	0.09	0.28	0.09	0.28
Month: Jul	0.09	0.28	0.08	0.28
Month: Aug	0.07	0.26	0.07	0.26
Month: Sep	0.08	0.27	0.08	0.27
Month: Oct	0.08	0.27	0.08	0.27
Month: Nov	0.08	0.27	0.08	0.27
Month: Dec	0.08	0.28	0.08	0.28
Day of the Week: Sun	0.16	0.37	0.16	0.37
Day of the Week: Mon	0.14	0.35	0.14	0.35
Day of the Week: Tue	0.14	0.35	0.14	0.35
Day of the Week: Wed	0.14	0.34	0.14	0.34
Day of the Week: Thu	0.13	0.33	0.13	0.33
Day of the Week: Fri	0.14	0.35	0.14	0.35
Day of the Week: Sat	0.15	0.36	0.15	0.36
Day of the month: 1	0.04	0.19	0.04	0.19
Day of the month: 2	0.03	0.18	0.03	0.18
Day of the month: 3	0.03	0.18	0.03	0.18
Day of the month: 4	0.03	0.18	0.03	0.18
Day of the month: 5	0.03	0.17	0.03	0.17
Day of the month: 6	0.03	0.17	0.03	0.17
Day of the month: 7	0.04	0.19	0.04	0.19
Day of the month: 8	0.03	0.18	0.03	0.18
Day of the month: 9	0.03	0.17	0.03	0.18
Day of the month: 10	0.03	0.18	0.03	0.18
Day of the month: 11	0.03	0.18	0.03	0.18
Day of the month: 12	0.03	0.18	0.03	0.18
Day of the month: 13	0.03	0.18	0.03	0.18
Day of the month: 14	0.03	0.18	0.03	0.18
Day of the month: 15	0.03	0.18	0.03	0.18
Number of observations	11,867		12,466	

Table A.4: Descriptive statistics for the cases of officers from bottom 95% of the workload and for all observations. Officers observed for at least 3 months.

Variable	Bottom 95% of workload		Full distribution of workload	
	Mean	SD	Mean	SD
Day of the month: 16	0.03	0.18	0.03	0.18
Day of the month: 17	0.03	0.17	0.03	0.17
Day of the month: 18	0.03	0.17	0.03	0.17
Day of the month: 19	0.03	0.17	0.03	0.17
Day of the month: 20	0.03	0.18	0.03	0.18
Day of the month: 21	0.03	0.17	0.03	0.17
Day of the month: 22	0.03	0.18	0.03	0.18
Day of the month: 23	0.03	0.18	0.03	0.18
Day of the month: 24	0.03	0.18	0.03	0.18
Day of the month: 25	0.03	0.18	0.03	0.18
Day of the month: 26	0.03	0.18	0.03	0.18
Day of the month: 27	0.04	0.18	0.04	0.18
Day of the month: 28	0.03	0.18	0.03	0.18
Day of the month: 29	0.03	0.17	0.03	0.17
Day of the month: 30	0.03	0.17	0.03	0.17
Day of the month: 31	0.02	0.15	0.02	0.15
Year: 2014	0.11	0.31	0.11	0.31
Year: 2015	0.19	0.39	0.19	0.39
Year: 2016	0.19	0.39	0.19	0.39
Year: 2017	0.21	0.41	0.21	0.41
Year: 2018	0.24	0.43	0.24	0.43
Year: 2019	0.06	0.23	0.06	0.24
Number of observations	11,867		12,466	

Note: Perpetrator refers to alleged perpetrator.

## B Number of different outcomes and cases per officer for different parts of workload distribution.

### B.1 Officers observed for at least 1 month

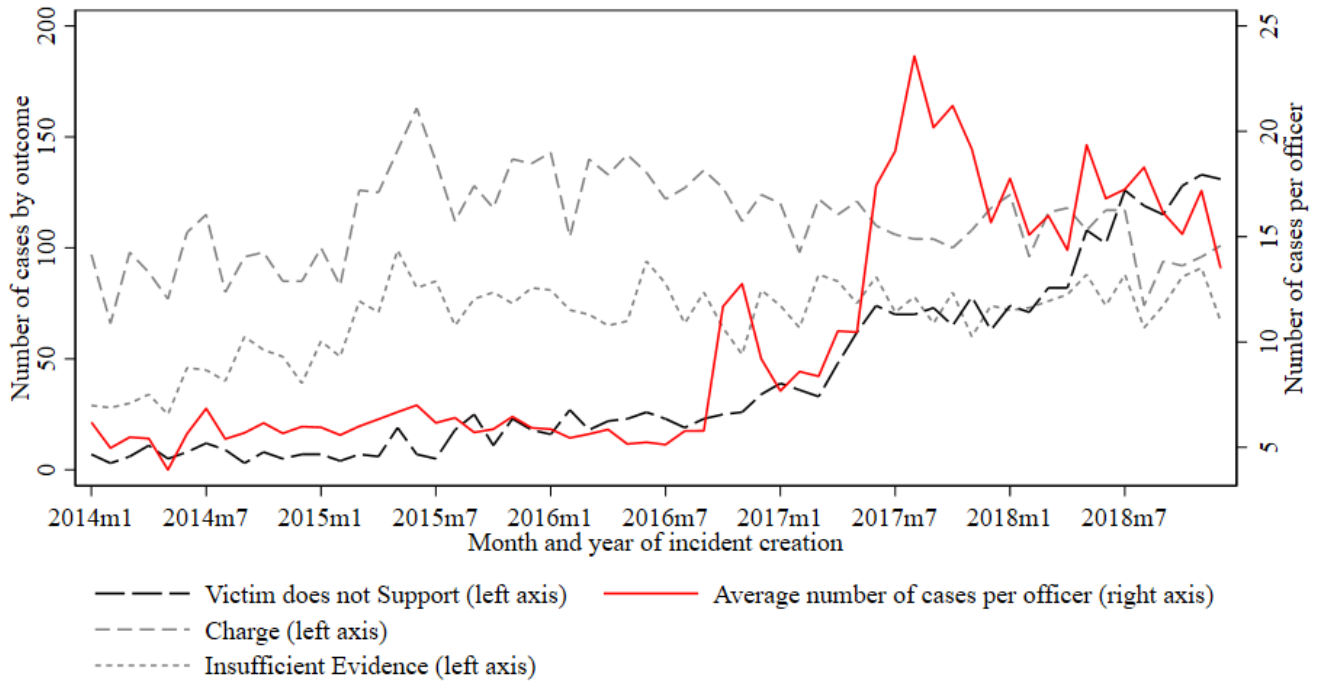


Figure B.2: Number of cases by outcome (left axis) and average number of cases per officer (right axis), monthly. Full workload distribution. Officers observed for at least 1 month.

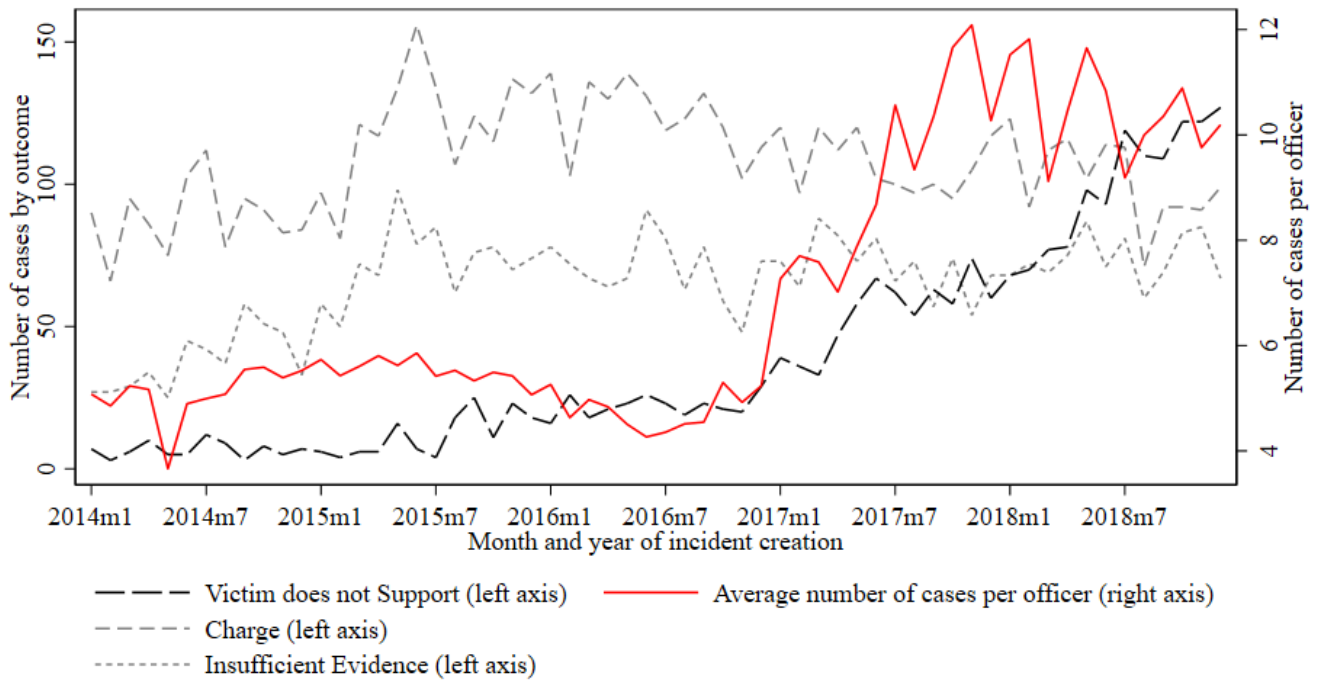


Figure B.3: Number of cases by outcome (left axis) and average number of cases per officer (right axis), monthly. Cases of officers from bottom 95% of workload. All officers.

## B.2 Dataset of officers observed for at least 3 months

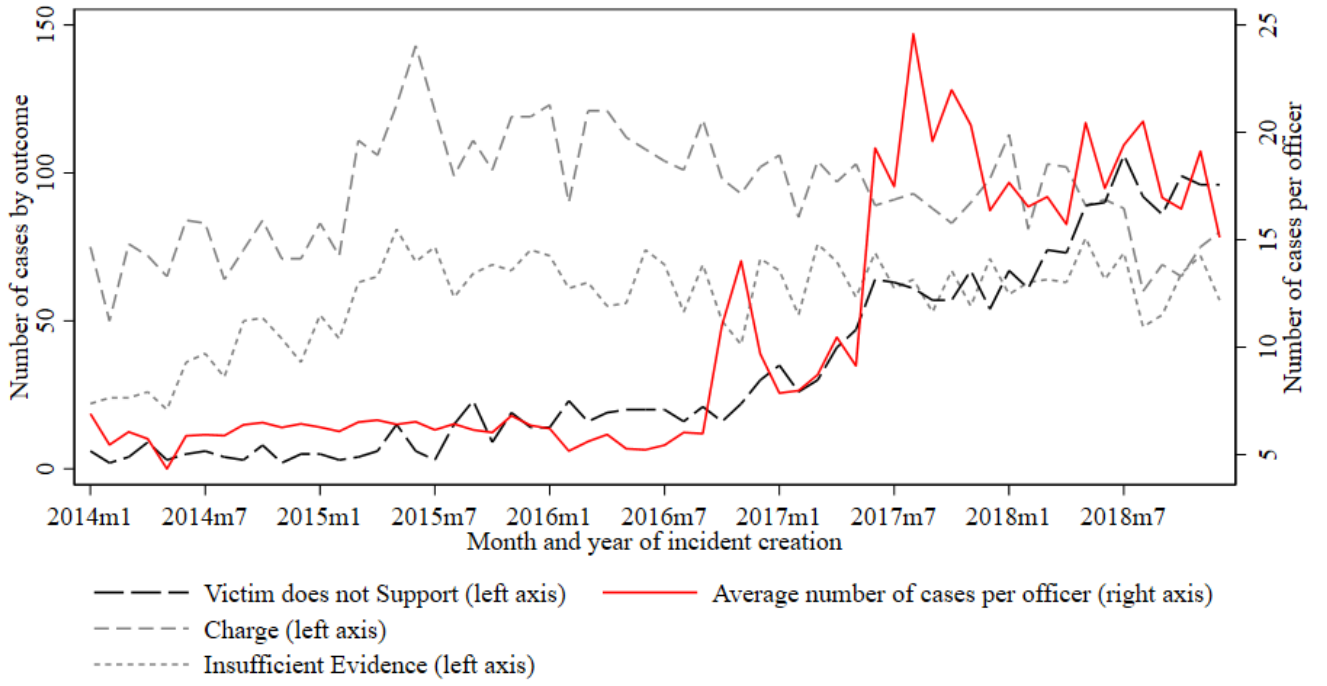


Figure B.4: Number of cases by outcome (left axis) and average number of cases per officer (right axis), monthly. Full workload distribution. Officers observed for at least 3 months.

## C Full results from Table 1

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
Number of crimes per officer, current month	0.400*** (0.038)	0.362*** (0.042)	0.335*** (0.049)	0.257*** (0.074)	0.241** (0.080)
Crime type:					
Violence against the person		0 (.)	0 (.)	0 (.)	0 (.)
Sexual offences		15.042*** (1.545)	15.859*** (1.543)	20.263*** (2.006)	20.158*** (1.985)
Robbery		-5.221** (2.312)	-5.703** (2.253)	-4.792 (2.916)	-4.695 (2.890)
Theft offences		0.51 (1.232)	0.616 (1.323)	0.098 (1.250)	0.018 (1.293)
Criminal damage and arson offences		-2.263** (0.925)	-2.177** (0.972)	-2.293 (1.425)	-2.191 (1.402)
How reported:					
999 call		0 (.)	0 (.)	0 (.)	0 (.)
At police station		-2.875 (5.097)	-2.736 (5.006)	-2.120 (5.200)	-1.969 (5.317)
Found by police		-16.415*** (4.787)	-15.355** (5.222)	-7.782 (4.522)	-7.539 (4.530)
Other telephone call		-3.803*** (1.156)	-3.957*** (1.175)	-0.389 (0.929)	-0.589 (0.992)
To ambulance service		-8.134*** (1.776)	-6.851*** (1.731)	-1.052 (2.399)	-1.046 (2.446)
To police patrol		11.161*** (2.282)	11.612*** (2.231)	9.382*** (3.009)	9.404*** (3.011)
Other		-0.638 (9.300)	-0.639 (9.070)	-1.646 (6.222)	-1.534 (6.163)
Reported by:					
Other		0 (.)	0 (.)	0 (.)	0 (.)
Victim		0.221 (0.924)	0.245 (0.938)	1.259 (0.920)	1.210 (0.912)
Missing		13.560** (4.420)	12.390** (4.804)	4.686 (4.661)	4.559 (4.767)
Response grade:					
Immediate		0	0	0	0
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
		(.)	(.)	(.)	(.)
Priority		3.004**	3.192**	2.320*	1.956*
		(1.055)	(1.065)	(1.075)	(1.086)
Prompt		0.993	0.878	3.670**	2.478
		(0.929)	(0.892)	(1.588)	(1.836)
Missing		9.259*	8.270*	3.414	-2.079
		(4.607)	(4.311)	(2.797)	(2.012)
Age (victim)		-0.083	-0.075	-0.193	-0.18
		(0.125)	(0.136)	(0.148)	(0.146)
Age-squared (victim)		0	-0.001	0.001	0.001
		(0.002)	(0.002)	(0.002)	(0.002)
Age missing (victim)		-24.172***	-26.045***	-32.058***	-31.569***
		(4.232)	(4.007)	(7.864)	(8.401)
Ethnicity (victim):					
Asian		1.645	1.915	2.605	2.466
		(1.685)	(1.494)	(1.696)	(1.653)
Black		-0.458	0.522	1.257	1.225
		(2.187)	(1.954)	(1.950)	(2.035)
Chinese, Japanese Or South East Asian		-3.16	-2.608	2.966	3.206
		(6.582)	(6.280)	(7.921)	(7.922)
Middle Eastern		10.472	11.153	13.791	14.015
		(9.105)	(9.216)	(9.969)	(9.793)
Unknown		3.134***	3.058***	0.612	0.609
		(0.806)	(0.856)	(0.889)	(0.919)
White - North European		0	0	0	0
		(.)	(.)	(.)	(.)
White - South European		-7.490**	-6.823*	-3.924	-3.763
		(3.279)	(3.141)	(2.825)	(2.784)
Flag for alcohol influence (victim)		2.772**	2.764**	3.595**	3.615**
		(1.052)	(1.107)	(1.331)	(1.336)
Flag for substance influence (victim)		5.823**	6.397**	2.858	2.762
		(2.315)	(2.428)	(2.385)	(2.335)
Flag for injury (victim)		-6.721***	-6.703***	-5.544***	-5.489***
		(0.894)	(0.895)	(1.177)	(1.173)
Number of victims		-0.403	-0.479	-2.307	-2.459
		(2.403)	(2.403)	(2.638)	(2.658)
Age (perpetrator)		-0.663*	-0.636*	-0.734**	-0.732**
		(0.343)	(0.338)	(0.311)	(0.310)
Age-squared (perpetrator)		0.011**	0.011**	0.011**	0.011**
		(0.005)	(0.004)	(0.004)	(0.004)
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
Age missing (perpetrator)		6.772 (10.350)	9.158 (10.111)	7.062 (12.079)	7.211 (12.014)
Female (perpetrator)		4.401 (4.089)	4.074 (4.016)	2.584 (3.943)	2.214 (4.004)
Ethnicity (perpetrator):					
Asian		0.288 (1.632)	0.893 (1.611)	-0.516 (1.840)	-0.505 (1.816)
Black		0.24 (1.577)	1.968 (1.546)	2.182 (1.422)	2.248 (1.405)
Chinese, Japanese Or South East Asian		-13.117* (6.853)	-14.339** (6.500)	-12.214 (11.341)	-11.902 (11.466)
Middle Eastern		2.719 (4.948)	5.159 (5.340)	2.808 (6.118)	2.54 (5.963)
Unknown		3.337** (1.399)	3.150* (1.514)	0.745 (1.590)	0.786 (1.611)
White - North European		0 (.)	0 (.)	0 (.)	0 (.)
White - South European		2.198 (4.160)	2.706 (4.277)	4.517 (3.605)	4.262 (3.601)
Flag for alcohol influence (perpetrator)		-2.980*** (0.819)	-2.820*** (0.787)	-2.559** (1.139)	-2.497** (1.134)
Flag for substance influence (perpetrator)		-2.512** (0.834)	-2.562** (0.844)	-1.834** (0.750)	-1.773** (0.770)
Flag for injury (perpetrator)		-1.66 (1.591)	-1.239 (1.604)	-0.332 (1.822)	-0.276 (1.821)
Relation of perpetrator to victim:					
Boyfriend / Husband / Male Partner		0 (.)	0 (.)	0 (.)	0 (.)
Brother / Father / Son		4.979** (1.959)	5.748** (2.019)	3.855* (1.857)	3.886* (1.836)
Ex Husband / Male Ex Partner		-3.530*** (0.813)	-3.266*** (0.777)	-3.380*** (0.875)	-3.511*** (0.888)
Other		-0.916 (2.751)	-0.661 (2.753)	-0.504 (3.399)	-0.506 (3.500)
Missing		-2.291 (1.945)	-1.672 (1.724)	-1.588 (1.961)	-1.722 (1.920)
Number of perpetrators		0.059 (2.510)	-0.072 (2.573)	-0.463 (2.602)	-0.423 (2.624)
Division:					
A (North)			0	0	0
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes



Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
			(.)	(.)	(.)
E (New South)			-3.721*** (0.219)	-7.776** (2.824)	-7.764** (2.768)
F (Salford)			1.790*** (0.261)	-4.204 (3.341)	-4.081 (3.351)
G (Tameside)			2.855*** (0.325)	-2.897 (3.938)	-2.779 (3.930)
I			-24.118*** (4.363)	-35.594*** (6.354)	-41.578*** (6.523)
J (Stockport)			-2.047*** (0.521)	-12.203** (5.119)	-12.305** (5.065)
K (Bolton)			-6.120*** (0.225)	-7.096 (5.688)	-6.99 (5.676)
L (Wigan)			8.229*** (0.390)	-3.777 (6.611)	-3.101 (6.730)
M (Trafford)			0.135 (0.415)	-19.818*** (5.967)	-19.520*** (5.938)
N (Bury)			-1.266*** (0.403)	-10.996** (4.785)	-10.332* (4.719)
P (Rochdale)			7.356*** (0.310)	-0.964 (4.399)	-0.67 (4.458)
Q (Oldham)			4.836*** (0.195)	-4.625* (2.165)	-4.541* (2.158)
Deprivation quintile:					
1 - most deprived			0 (.)	0 (.)	0 (.)
2			-1.630** (0.650)	-1.708* (0.794)	-1.780** (0.795)
3			-0.253 (0.835)	-0.512 (0.939)	-0.542 (0.967)
4			0.646 (0.746)	-0.184 (1.142)	-0.248 (1.157)
5			0.568 (1.060)	-0.218 (1.027)	-0.278 (1.053)
Missing			0.09 (1.289)	1.477 (1.638)	1.498 (1.627)
Month:					
Jan			0 (.)	0 (.)	0 (.)
Feb			-1.046	0.101	-0.05
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
Mar			(1.534)	(1.288)	(1.285)
			-0.793	1.322	1.23
Apr			(1.500)	(1.851)	(1.824)
			-3.068*	1.498	1.353
May			(1.508)	(2.111)	(2.106)
			-2.368	2.182	2.053
Jun			(1.326)	(1.518)	(1.515)
			-2.33	3.151	2.943
Jul			(1.687)	(1.896)	(1.944)
			-0.282	4.384	4.199
Aug			(1.929)	(2.641)	(2.641)
			1.374	6.449*	6.218*
Sep			(2.276)	(3.231)	(3.221)
			0.393	7.733***	7.451**
Oct			(1.940)	(2.450)	(2.449)
			-0.364	5.595**	5.335**
Nov			(1.521)	(1.953)	(1.943)
			0.695	5.651**	5.462*
Dec			(1.848)	(2.518)	(2.516)
			0.68	5.761***	5.579***
Sun			(1.265)	(1.729)	(1.702)
			0	0	0
			(.)	(.)	(.)
Day of the week:					
Mon			0.681	-0.466	-0.471
			(0.388)	(0.606)	(0.637)
Tue			1.039	-0.431	-0.485
			(0.981)	(0.835)	(0.867)
Wed			-1.06	-1.995	-1.975
			(0.854)	(1.320)	(1.348)
Thu			1.087	0.892	0.836
			(1.328)	(1.365)	(1.391)
Fri			0.187	-0.026	-0.033
			(0.758)	(0.816)	(0.803)
Sat			-2.145**	-2.729*	-2.661*
			(0.908)	(1.361)	(1.399)
Day of the month:					
1			0	0	0
			(.)	(.)	(.)
2			1.221	1.752	1.801
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
3			(2.058)	(2.079)	(2.040)
			-2.073	-1.726	-1.559
4			(1.809)	(1.894)	(1.879)
			-0.222	0.177	0.312
5			(3.055)	(3.644)	(3.640)
			-2.387	-1.488	-1.418
6			(1.996)	(2.119)	(2.109)
			-2.13	0.32	0.379
7			(2.425)	(1.728)	(1.653)
			-1.339	0.48	0.587
8			(2.037)	(2.216)	(2.216)
			0.64	0.192	0.322
9			(1.993)	(2.513)	(2.514)
			1.379	1.762	1.826
10			(3.126)	(2.916)	(2.943)
			-2.758	-2.747	-2.524
11			(2.345)	(3.173)	(3.125)
			1.22	3.223	3.229
12			(3.227)	(3.357)	(3.386)
			-0.522	0.292	0.37
13			(2.539)	(2.867)	(2.892)
			-0.345	0.948	1.087
14			(2.299)	(2.834)	(2.762)
			-2.221	-0.718	-0.628
15			(2.042)	(2.330)	(2.307)
			-0.643	-0.414	-0.505
16			(2.253)	(2.087)	(2.136)
			-0.836	0.947	1.007
17			(2.044)	(2.386)	(2.368)
			-2.555	-0.123	0.013
18			(1.922)	(2.731)	(2.753)
			-1.096	-0.374	-0.298
19			(2.369)	(3.165)	(3.183)
			-2.044	0.026	0.158
20			(1.660)	(1.827)	(1.865)
			-2.911*	-2.975	-2.959
21			(1.602)	(2.278)	(2.297)
			1.304	1.694	1.888
22			(2.241)	(2.024)	(2.017)
			-1.081	-1.089	-0.871
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

Table C.1: Full results from Table 1. Cases of officers from bottom 95% of workload. Officers observed for at least 3 months.

	(1)	(2)	(3)	(4)	(5)
23			(2.022)	(1.879)	(1.904)
			1.454	1.826	1.884
			(1.737)	(2.121)	(2.121)
24			1.145	2.708	2.727
			(2.185)	(2.529)	(2.572)
25			-0.702	0.214	0.439
			(2.008)	(1.724)	(1.673)
26			-0.678	0.328	0.458
			(1.995)	(2.893)	(2.929)
27			1.695	1.601	1.717
			(2.543)	(2.998)	(3.030)
28			0.667	1.584	1.549
			(2.358)	(2.696)	(2.684)
29			-2.069	-2.111	-2.008
			(2.403)	(2.751)	(2.741)
30			1.447	2.529	2.491
			(2.019)	(3.334)	(3.319)
31			-2.461	-1.089	-1.167
			(1.843)	(3.109)	(3.139)
Year:					
2014				0	0
				(.)	(.)
2015				1.175	1.039
				(0.939)	(0.931)
2016				6.014***	5.863***
				(1.008)	(1.044)
2017				16.908***	16.573***
				(1.858)	(1.823)
2018				27.425***	27.082***
				(2.590)	(2.521)
2019				32.628***	32.106***
				(3.192)	(3.200)
Days until closing					0.758**
					(0.326)
Response time					0.000
					(0.001)
Response time missing					5.515
					(3.783)
Constant	15.006***	29.214***	28.567***	38.088***	37.983***

	(1.319)	(5.982)	(5.501)	(5.565)	(5.419)
R2	0.01	0.05	0.07	0.31	0.31
R2 adj.	0.01	0.05	0.06	0.17	0.17
Observations	11867	11867	11867	11867	11867
Crime, victim and perpetrator ch.	No	Yes	Yes	Yes	Yes
Area, day and month FE	No	No	Yes	Yes	Yes
Officer and year FE	No	No	No	Yes	Yes
Response characteristics	No	No	No	No	Yes

## D Estimates of Equation 1. Different workload and number of months.

The results in Table 1 are based on a dataset including cases of officers from the bottom 95% of the workload distribution observed for a minimum of 3 months, as discussed in Section 1. Expanding the dataset to include officers observed for at least one month produces qualitatively similar estimates, as shown in Panel B of Table D.1. Considering outliers by including officers in the top 5% of the workload distribution, as expected, decreases the magnitude of the coefficients. Nevertheless, the results stay statistically significant. These results are reported in Panels C and D of Table D.1.

Table D.1: Estimates of Equation 1. Different workload and number of months.

	(1)	(2)	(3)	(4)	(5)
<b>Panel A: 95% of workload distribution. Officers observed for at least 3 months (copies Table C.1)</b>					
Number of crimes per officer, current month	0.400*** (0.038)	0.362*** (0.042)	0.335*** (0.049)	0.257*** (0.074)	0.241** (0.080)
Number of observations	11,867	11,867	11,867	11,867	11,867
R-squared	0.01	0.05	0.07	0.31	0.31
<b>Panel B: 95% of workload distribution. Officers observed for at least 1 month</b>					
Number of crimes per officer, current month	0.406*** (0.034)	0.369*** (0.035)	0.345*** (0.040)	0.287*** (0.081)	0.271** (0.088)
Observations	14,464	14,464	14,464	14,464	14,464
R2	0.01	0.05	0.07	0.39	0.39
<b>Panel C: Full workload distribution. Officers observed for at least 3 months</b>					
Number of crimes per officer, current month	0.207*** (0.034)	0.189*** (0.029)	0.188*** (0.025)	0.110** (0.048)	0.102* (0.046)
Number of observations	12,466	12,466	12,466	12,466	12,466
R-squared	0.02	0.06	0.07	0.3	0.31
<b>Panel D: Full workload distribution. Officers observed for at least 1 month</b>					
Number of crimes per officer, current month	0.204*** (0.030)	0.184*** (0.027)	0.181*** (0.023)	0.120** (0.053)	0.110* (0.052)
Number of observations	15,142	15,142	15,142	15,142	15,142
R-squared	0.02	0.05	0.07	0.39	0.39
Crime, victim and perpetrator ch.		X	X	X	X
Area, day and month FE			X	X	X
Officer and year FE				X	X
Response characteristics					X

Note: Standard errors in parentheses clustered at the division level. \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.

## E Heterogeneity analysis

We reformulate Equation 1 to allow for heterogeneous effects by interacting officers' workload with the characteristics,  $Z$ , that are significantly associated with the withdrawal probability. We maintain the same set of controls as in the main analysis. We estimate the following equation:

$$W_{ijt} = \beta_0 + \sum_{k=1}^K \beta_{1k} N_{jt} D_i^k + \tilde{X}_{it}' \beta_2 + \gamma_j + \nu_{itr} + u_{ijt}, \quad (2)$$

where  $D_i^k := \mathbf{1}[Z_i = k]$  and  $X_{it} := (\tilde{X}_{it}, Z_{it})$ . The results are presented in Table E.1.

Table E.1: Heterogeneity results

	(1)	(2)	(3)	(4)
	Main results	How reported	Relation to victim	Seasonality
Number of crimes per officer, current month	0.257*** (0.074)	0.285** (0.098)	0.412*** (0.111)	0.041 (0.079)
999 call # Number of crimes per officer		0.000 (.)		
At police station # Number of crimes per officer		-0.559** (0.242)		
Found by police # Number of crimes per officer		-0.237 (0.542)		
Other telephone call # Number of crimes per officer		-0.007 (0.082)		
To ambulance service # Number of crimes per officer		-0.400 (0.240)		
To police patrol # Number of crimes per officer		-0.452** (0.204)		
Other # Number of crimes per officer		-0.993** (0.375)		
Boyfriend / Husband / Male Partner # N of crimes per officer			0.000 (.)	
Brother / Father / Son # Number of crimes per officer			0.014 (0.262)	
Ex Husband / Male Ex Partner # Number of crimes per officer			-0.186* (0.100)	
Other # Number of crimes per officer			-0.828*** (0.154)	
Missing # Number of crimes per officer			-0.148 (0.246)	
Aug # Number of crimes per officer				0.521* (0.256)
Sep # Number of crimes per officer				0.396** (0.158)
Oct # Number of crimes per officer				0.311* (0.147)
Nov # Number of crimes per officer				0.522*** (0.149)
Dec # Number of crimes per officer				-0.257 (0.229)
R2	0.31	0.31	0.31	0.31
Observations	11867	11867	11867	11867

Note: Standard errors in parentheses clustered at the division level. \* p<0.10, \*\* p<0.05, \*\*\* p<0.01.