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Online crime reporting: A new threat to police legitimacy?

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Abstract

Police are more likely to be perceived as legitimate when officers are procedurally just during interactions with the public (i.e., impartial, transparent, fair, and respectful). Efforts to reinforce these skills have largely focused on contacts initiated by officers. Less attention has been paid to interactions with crime victims. Moreover, in recent years many police departments have sought to increase efficiency by directing victims to report online, rather than communicating directly with an officer. Very little is known about how victims experience online reporting systems. This study surveyed 1,198 property crime victims who used a large U.S. police department's online reporting portal. The primary objective was to evaluate the online reporting system using a procedural justice lens. One out of eight respondents said the agency's online system was difficult to use and just 16.7% were satisfied with the agency's handling of their online report. Bivariate and multivariate analyses are used to identify factors associated with satisfaction and qualitative data are used to document the specific problems victims encountered while using the online portal. Recommendations for improving online reporting are provided, including a discussion of enhancing procedural justice in technology-mediated police communications.

Keywords: Crime Reporting, Crime Victims, Property Crime, Procedural Justice, Law Enforcement

Online crime reporting: A new threat to police legitimacy?

1 Introduction

Recent trends in policing have sought to address staffing shortages by adopting new technologies with the goal of optimizing operational efficiency (Lum et al., 2017). A relatively new development in this regard is the use of online crime reporting systems (Henning et al., 2023). Online portals allow victims to document a crime without personally interacting with an officer or other police employee, the standard for reporting crime throughout law enforcement's history. The technology has been marketed to agencies as a major cost-saving strategy, freeing up officers to handle more serious incidents.

While online crime reporting may increase police efficiency, police effectiveness is another matter. If a large proportion of victims experience problems when using online portals or if many are left unsatisfied by their local agency's handling of their report, we may see a critical trade-off between police efficiency and effectiveness. Of particular concern is the concept of procedural justice. When people feel they have been heard, supported, and treated with respect during interactions with officers, they are more likely to be satisfied with the outcomes (Sunshine & Tyler, 2003). This, in turn, increases the likelihood that people view police as legitimate and cooperate with them in controlling crime (Tyler, 2003). Efforts to study and improve procedural justice within policing have primarily addressed face-to-face interactions between officers and members of the public during officer-initiated contacts. Much less is known about how procedural justice is manifested in police interactions with crime victims, and research is largely non-existent when it comes to procedural justice in communications such as online reporting that are mediated by technology (Wells et al., 2023).

Hence, the present study sought to examine online crime reporting using a procedural justice lens. We did this by surveying property crime victims after they filed an online report with a large municipal police department in the United States (U.S.). We found that many victims experience difficulties using the agency's online portal and very few are satisfied with the agency's handling of their crime report, suggesting limited attention to procedural justice in the design and use of this technology.

1.1 Trust, Legitimacy, and Procedural Justice

The relationship between law enforcement and the communities they serve has been the subject of considerable focus in recent years across the globe. For example, in 2015 President Obama initiated a task force on 21st Century Policing, seeking to build legitimacy and trust between citizens and the nation's law enforcement agencies. The task force identified procedural justice as an important step in fostering trust (President's Task Force on 21st Century Policing, 2015). Procedural justice involves actions by officers and police agencies that leave citizens feeling like they were treated fairly and that decisions were made with trustworthy intentions (Ballucci & Drakes, 2021; Barkworth & Murphy, 2016). Additionally, people are more likely to be satisfied with the police when they perceive that the officer listened to them and treated them respectfully throughout the encounter (O'Brien & Tyler, 2019). Building legitimacy through procedural justice requires that law enforcement agencies carefully monitor and, where necessary, change how they interact with members of the public.

An extensive body of literature supports the importance of procedural justice as a foundation for police legitimacy. When individual citizens view their interactions with officers as balanced, fair, and respectful, they are more likely to comply with the law and cooperate with the police (Hellwege et al., 2022; Mazerolle et al., 2013; Tyler, 2003). Likewise, when

communities perceive that law enforcement aims to provide public safety and support, this promotes feelings of security and facilitates the perceived legitimacy of the criminal justice system (O'Brien et al., 2020). These findings have been reinforced in studies exploring minority interactions with police (e.g., Solomon, 2019; Murphy, 2023), as well as interactions involving technology such as body-worn cameras (Sivasubramaniam et al., 2021).

While the benefits of procedural justice are well-established when it comes to officer-initiated interactions with the public, comparably less attention has been paid to the impact of procedural justice for crime victims (van Dijk, 2015). Research in this area has emphasized a positive relationship between procedurally just encounters and victim satisfaction with the police (Ballucci & Drakes, 2021). There is also evidence that procedurally just interactions with officers can reduce the negative emotional impact associated with victimization (Barkworth & Murphy, 2016; Wemmers, 2013). Some aspects of procedural justice may differ however, between people who are accused of criminal wrongdoing and the victims of these actions. With the former, perceived neutrality in decision-making is of critical concern. Victims by comparison want the police to acknowledge the harm done and attribute blame to the offender (Elliott et al., 2012; 2014). Likewise, the physical and psychological toll of victimization may necessitate greater empathy and compassion from officers when dealing with victims (Rosenbaum & Lawrence, 2017). Other components of procedural justice for victims include police actions that demonstrate they took the crime seriously, opportunities for victims to weigh in on case decisions, providing victims with periodic updates, and addressing the information needs of victims (Elliott et al., 2012; 2014; Wemmers, 1996).

1.2 Crime Reporting

Crime is significantly underreported in most settings (Iriberry et al., 2006; Linning & Barnes; 2022). This is a critical issue, as accurate crime data is key to the effectiveness of our criminal justice system (Xie & Baumer, 2019):

Victims' decisions to not call the police may fundamentally shape our understanding of the distribution of crimes, limit the protective and emotional support received by victims, undercut the deterrence capacity of the criminal justice system, and hamper scientific evaluation of policies directed at improving public safety. (p.218)

Xie and Baumer's (2019) recent review of the crime reporting literature documents a strong positive association between crime severity (e.g., injury, emotional harm, economic losses) and the victim's willingness to contact the police. Likewise, victims are less likely to contact the police when they risk retaliation, fear police scrutiny, are embarrassed about their crime, or have access to other sources of support. Demographics may play a role as well, with studies documenting higher rates of reporting based on age (older), sex (females), and race (African Americans), although these effects may be moderated by contextual factors, suspect characteristics, and the type of crime involved. Finally, Xie and Baumer (2019) noted that a victim's interactions with the police may impact their willingness to report future crimes. Longitudinal research on this topic remains limited, however, and the existing studies have generated mixed findings (e.g., Hickman & Simpson, 2003; Stanek et al., 2023).

1.3 Technology and Online Reporting

Recent pressure on the police to increase transparency and build community trust in the wake of high-profile incidents of misconduct has emerged within an environment of resource scarcity, as cost and service expectations increase, while budgets decrease (Griffiths et al., 2015). With limited police resources and considerable competition for services, there is an increased focus on resource allocation, efficiency, and cost-effectiveness (Alarid & Novak, 2008). As a result, many agencies are investing in new technologies to support core policing activities (Lum

et al., 2017). Police websites represent one such technology. They are increasingly used to facilitate communications between the police and the people they serve (Hansen et al., 2022). In addition to ‘pushing’ different types of information to the public (e.g., crime data, public safety alerts, press releases), web-based technologies are being used to receive information that was previously obtained via in-person interactions. This includes crime reports submitted by victims.

Online crime reporting systems can improve organizational efficiency by exchanging face time with an officer for a fully automated experience. Given the potential time savings involved, it is not surprising that online reporting has become increasingly prevalent over the past decade. In 2011, just 42% of police agencies hosted a department-specific website, and less than 10% offered online crime reporting (Rosenbaum et al., 2011). A more recent audit of 975 police departments in the U.S. with 50+ sworn officers found that 40% provide online crime reporting, a figure that rose to 70% for agencies with 500+ officers (Henning et al., 2023).

Very little is known about the impact on victims and communities when crime reporting is shifted from in-person to a completely online experience. Access to online reporting might benefit certain demographic groups that are less willing to personally interact with police officers. Alternatively, we may find that reliance on this form of reporting results in decreased participation for some groups. That was the case when researchers studied enrolment in patient healthcare portals. Racial and ethnic minorities, as well as younger people, were less likely to use these systems (Irizarry et al., 2015). In light of the dramatic increase in online reporting over a short period of time, it seems particularly important to document victims’ experiences with this form of communication. If victims regularly experience difficulties using the technology, if they get confused or frustrated along the way, and if they are left feeling that the police did not take

their report seriously (i.e., low procedural justice), they are unlikely to be satisfied and trust in the police is likely to erode.

1.4 Research Questions

Procedural justice emphasizes the need for people to feel heard, supported, and listened to during interactions with the police. This allows individuals to feel that they were treated fairly, that their concerns were taken seriously, and that they are valued. The current study assesses, albeit indirectly by focusing on the user experience and overall satisfaction, whether victims feel a sense of procedural justice when they submit an online crime report. More specifically, we address three research questions:

- How functional is the agency's online crime reporting system?
- Are victims satisfied with the agency's handling of their online crime report?
- What could the agency do to increase satisfaction among victims?

2 Methods

2.1 Local Context

The study was conducted in Portland, Oregon (U.S.), a city in the Pacific Northwest with an estimated population of 641,142 residents. The city's primary law enforcement agency, the Portland Police Bureau (PPB), offers victims the opportunity to use online reporting as an alternative to in-person reporting for certain property crimes. This includes burglary to an unoccupied structure, forgery, fraud, identity theft, theft from a motor vehicle (MV), theft of MV parts, 'other' theft, vandalism to a vehicle, and vandalism to other property. These offenses, whether reported online or in person, accounted for roughly two-thirds (69.7%) of all property crimes documented by the agency during the study period. Furthermore, the PPB estimates that

online reporting accounted for roughly one-half (45%) of the applicable offenses listed above. The other half were reported directly to a police officer or community safety specialist.

People learn about or are referred to the agency's online reporting system in a variety of ways. The most common pathway is when they independently search the PPB's website to learn about options for crime reporting. The agency's main landing page prominently features a link to its online portal. The next most common pathway is when people call the local emergency (911) or non-emergency (311) number to request police assistance. Dispatchers taking these calls inform the victim that online reporting is available and, depending on the current call load, could be their only option unless they are willing to wait indefinitely for an officer.¹ Other victims learn about the online system by calling their local precinct, by talking directly to an officer, or via referrals from other sources (e.g., family, neighbour, business owner).

Victims navigating to the PPB's online reporting webpage are asked several screening questions to ensure that their incident meets the inclusionary criteria. First, the online portal can only be used for the property offenses listed above. All other offenses must be reported directly to an officer. Second, property crimes involving the theft of a firearm, narcotic medication, or a motor vehicle cannot be reported online. Third, incidents with an identified (i.e., named) suspect must also be reported in person. Finally, the online system cannot be used for anonymous reporting. It is only used for submitting an official crime report where the victim is identified.

Next, the webpage informs the victim that filing a false police report is a crime and they are given a brief outline documenting the agency's process for approving reports. At this point the victim is ready to start their submission. The PPB, like roughly two-thirds of all agencies in

¹ The local wait times for accessing a police dispatcher and for the arrival of an officer have increased significantly in recent years due to higher demand and decreased staffing. The latter includes a 29.8% reduction in sworn officers from 2010 (1.70 per 1,000 residents) to 2021 (1.19).

the U.S. offering online reporting (Henning, et al., 2023), uses LexisNexis's CopLogic web platform to capture incident details. This includes extensive information on the victim (e.g., name, contact information, demographics), the crime (e.g., offense category, address, date, time, location type), and the property involved (e.g., type, brand, model, description, serial number, value). Victims are also asked to provide a narrative description of the incident, limited to a maximum of 2,000 characters. Finally, the web platform allows victims to update previously submitted reports as new information becomes available.

Reports submitted through the PPB's online portal are reviewed and approved by officers working on specialized assignment at a centralized location due to illness, injury, or other work restrictions. The number of officers involved changes daily (range = 1 to 20), and they process 20,000 to 25,000 reports per year. Officers review each online submission to determine the veracity of the crime and completeness of the report. When necessary, they email or call the victim to get more information. Once a submission is approved, the victim is sent an automated email with a final case number they can use for insurance purposes if applicable. This process usually takes 2 to 3 days, but can extend to several weeks when staffing is low. The high number of submissions and inconsistent staffing assigned to this task limits further communication with victims and, in the vast majority of cases, the crimes are not actively investigated.

2.2 Study Sample

The victims (N = 1,198) participating in this study all submitted an online crime report to the PPB between March 2021 and February 2023. For the purpose of the current study, we restricted the applicable cases to adults (age 18+) who used the online system to report a crime they personally experienced. This largely excludes people who used the online portal to document crimes on behalf of a business, school, or other organization.

The data were collected in three phases. For the first 12 months, we restricted our focus to victims in six of Portland's 95 distinct neighbourhoods. Everyone in these six locations who used the online portal was emailed an invitation to complete an online survey regarding their reporting experience. The invitations were sent 25 to 30 days after victims filed their initial report, and the anonymous survey was hosted at Portland State University. In a second phase lasting five months, we expanded coverage to include all of the PPB's North precinct, accounting for approximately one-third of the city. During this phase, adult victims using the online system were randomly assigned to either treatment as usual (TAU) or an enhanced follow-up condition. The current study uses data from only the TAU group to maintain consistency across phases. In the final phase starting in January 2023, we dropped the enhanced follow-up condition and extended the survey invitations to all adult victims using the online reporting system citywide. The 25 to 30-day delay in surveying victims remained constant across the three phases.²

Of the victims who were emailed the invitation letter, roughly one-quarter completed the online survey,³ with 33.6% of the cases (n = 402) generated in phase I, 11.6% (n = 139) in phase II, and 54.8% (n = 657) in phase III. As shown in Table 1, the combined sample was fairly evenly divided between males and females. The modal age category was 35 to 54, accounting for nearly one-half (47.5%) of the respondents. Racial minorities made up 15.2% of the sample and 7.4% of the respondents were Hispanic/Latino. Both figures are slightly lower than the 2022 Census estimates for the city. Nearly one in five (18.9%) victims lived outside of Portland.⁴

² Like most law enforcement agencies in the U.S., the PPB does not routinely conduct contact surveys (e.g., Rosenbaum et al., 2017). Hence, the current survey represents the only local data source for researching this topic during the study period.

³ The exact response rate could not be determined due to the anonymous nature of the surveys and difficulties tracking email invitations successfully delivered by the police agency.

⁴ Additional analyses, not reported here due to space limitations, compared the demographic characteristics of the respondents from our survey with the broader population of victims who reported an applicable property crime in 2021, either online or in person. The findings suggest that the demographics of the people who reported online and

2.3 Measures

The online survey instrument captured several aspects of the victim's crime and their experience using online reporting, which might impact satisfaction with the experience. This includes whether it was the victim's first time using the police bureau's online system ([0] No, [1] Yes), the type of crime involved ([1] theft from an MV or theft of MV parts, [2] vandalism to a MV or other property, or [3] other), and the device used when submitting the online report ([1] mobile phone, [2] desktop or laptop computer). Participants were asked to identify their primary reason for submitting the crime report: "Which of these would you say was the *most important* reason for reporting this incident to the police?" The six original response options were collapsed into four categories including [1] "I needed a police report for my insurance", [2] "I wanted the offender arrested or my property recovered", [3] "I wanted the police to prevent similar crimes from happening", and [4] "Other" (e.g., "It is a civic duty to report crimes to the police").

A dichotomous variable ([0] No, [1] Yes) assessed whether the police bureau provided any type of follow-up contact or outreach after the initial incident report was submitted. This was determined for the majority of respondents by asking the following: "Did a Portland police officer or public safety specialist communicate with you directly regarding this incident? Either by email, phone, or in-person?" Later versions of the survey instrument assessed this using four questions: 1) "Did someone from the Police Bureau contact you to see if you were OK?", 2) "Did someone from the Police Bureau contact you to get more information about the crime?", 3) "Did someone from the Police Bureau contact you to offer guidance on preventing further crimes?" and 4) "Did someone from the Police Bureau contact you to provide updates regarding

responded to our survey were comparable to the population of property crime victims who contacted the police that year.

your case?” An affirmative response to one or more of these four items led to the follow-up contact being coded [1] ‘Yes’.

Finally, victims were asked two global questions regarding their experience with the agency’s online crime reporting system. Victims were first asked, “Overall, was the Police Bureau's online crime reporting system easy or difficult to use?” The response options included [0] Very difficult, [1] Difficult, [2] Neither easy nor difficult, [3] Easy, and [4] Very easy. People selecting either of the first three options were given an open-ended text box and asked to describe any difficulties they had with the online system. This generated 224 written responses ranging in length from 12 to 810 characters ($M = 164.8$). Responses were reviewed using a qualitative, inductive approach to identify common themes.

The second global question asked: “Taking the whole experience into account, how satisfied are you with the way the Police Bureau handled this crime report?” Victims responded using the following scale: [0] Very dissatisfied, [1] Dissatisfied, [2] Neither satisfied nor dissatisfied, [3] Satisfied, or [4] Very satisfied. People selecting one of the dissatisfied options or the neutral condition were given an open-ended text box and asked what could the police bureau have done to make this a better experience. The prompt generated 616 text responses (range = 4 to 1,972 characters; $M = 213.7$). As per above, an inductive process was used to identify key themes in these qualitative data.

3 Results

3.1 Descriptive Statistics

Table 1 provides descriptive statistics on the crime reports submitted by victims and their experience with the agency’s online reporting system. Most of the victims (68.7%) were using the online system for the first time and two-thirds (67.8%) used a desktop or laptop computer to

complete their report. The crimes reported were evenly divided between theft from a MV/theft of MV parts (35.0%), vandalism (30.2%), and some other property offense (34.8%). With regard to victims' primary motivation for officially reporting their crime, one-third (31.4%) said they needed documentation for insurance purposes, one-third (30.4%) wanted the police to know about the crime so they could prevent further incidents, and a quarter (26.8%) wanted the police to arrest the suspect(s) or help recover their lost property. The remainder (11.3%) said that crime reporting was a civic duty or they listed a less common reason. Few victims (12.0%) reported a follow-up contact from the police bureau after receiving their final case number via email.

3.2 How Functional is the Agency's Online Reporting System?

Our first research question concerns the perceived ease of using the agency's online reporting system and the identification of problems with this software. Procedural justice, as applied in this context, would involve technology that is highly functional, easy to use, and supportive. The majority of victims (59.0%) rated the agency's online reporting system as easy or very easy to use, while 11.8% said it was difficult or very difficult (see Table 1). As noted previously, people were neutral were given the opportunity to describe problems they experienced using this online portal. These qualitative data highlighted numerous issues that police agencies could address to improve the online reporting process for victims. Two categories of responses were seen in the data including complications associated with the technology itself (e.g., clunky user interface, mobile phone incompatibility, character limits in text fields), and general complaints about the user experience (e.g., lack of support, unclear questions, problematic referrals to the online portal). Due to space limitations, we have

summarized these issues in Tables 2 and 3 respectively. The tables are sorted in descending order based on the frequency of each item.⁵

3.3 *Are Victims Satisfied with the Agency's Handling of Their Crime Report?*

Our second research question concerns victims' overall satisfaction with the police bureau's handling of their online crime report after it was submitted. The mean score on the satisfaction scale was 1.56 (SD = 1.08), roughly halfway between "Dissatisfied" and "Neither satisfied nor dissatisfied." Only 16.7% of the survey respondents said they were satisfied or very satisfied (see Table 1). More than twice this number said they were dissatisfied or very dissatisfied (44.3%).

ANOVAs were used to identify factors that might contribute to a victim's overall satisfaction rating (see Table 4). No differences were found in satisfaction ($p \geq .05$) based on the victims' gender, prior reporting experience, or the type of crime involved. Age was negatively associated with satisfaction [$F(2, 1080) = 40.07, p < .001$] and post hoc testing found significant differences between all three age groups ($p < .05$). Racial minorities rated the police handling of their report less favourably than Whites [$F(1, 1031) = 5.39, p = .02$], consistent with other research demonstrating lower levels of procedural justice and trust in the police among racial minorities (Tyler, 2003). The same was true for Hispanics/Latinos versus non-Hispanics [$F(1, 1010) = 4.72, p = .03$], and non-residents of the city [$F(1, 996) = 5.75, p = .02$].

Moving past demographics, we found that people who used a cell phone to complete their online submission were less satisfied with the police handling of their report than people who used a computer [$F(1, 638) = 5.03, p = .03$]. Satisfaction also varied depending on the victim's primary motivation for reporting the given crime [$F(3, 607) = 20.15, p < .001$]. Post hoc testing

⁵ Many of the victims accessing this open-ended prompt took the opportunity to voice complaints about their experience after filing their online report. These complaints are addressed in the next section.

revealed that the least satisfied group was those who filed a report hoping that the police would arrest the offender and/or recover their lost property. These victims were significantly less satisfied ($p < .05$) than people reporting for insurance coverage or so the police could prevent similar crimes. The fourth group, victims who reported for other reasons, usually a sense of civic duty, was the most satisfied with the police bureau's handling of their report.

Next, satisfaction ratings were higher when victims reported some type of follow-up contact from the police [$F(1, 1003) = 23.20, p < .001$]. The additional follow-up contact with an officer may have satisfied some procedural justice concerns that were lacking in the online system, a point we detail further in the discussion. Lastly, we tested whether a person's overall satisfaction with the police bureau's handling of their report was associated with their experience using the online portal. Ratings on the ease-of-use scale from earlier were collapsed into three categories to simplify this analysis (i.e., difficult, neither easy nor difficult, easy). The ANOVA was statistically significant [$F(2, 1169) = 90.28, p < .001$] and post hoc testing found that all three groups differed from one another ($p < .05$). People who found the online system more difficult to use were significantly less satisfied with how the police handled their crime report, potentially reflecting lower perceptions of procedural justice.

A final multivariate regression analysis assessed the independent associations between victim satisfaction ratings and their age, race, ethnicity, residency, reporting device, reporting reason, follow-up, and assessment of the online system. The overall model was statistically significant [$F(12, 510) = 15.20, p < .001$] accounting for one-quarter of the variance in satisfaction scores ($\text{Adj-R}^2 = .25$). Victim age, reporting reason, and perceived ease of use for the online portal all accounted for a unique variance in satisfaction scores ($p < .05$; see Table 4).

3.4 What could the agency do to increase satisfaction among victims via procedural justice?

Victims who were dissatisfied with or neutral regarding the police bureau's handling of their online report were asked how the agency could make this a better experience. Many people took this as an opportunity to share general complaints about the local police, the city, or crime.⁶ We excluded these responses from further analysis since our focus was online reporting. Similarly, we excluded complaints about the functional aspects of the online system or crime reporting more generally that are already documented in Tables 2 and 3.

The remaining comments were evaluated in light of procedural justice; that is, victims wanting to feel heard, valued, and be taken seriously. The central theme among the responses was that the police should actively do something with the crime reports submitted through the online portal. As noted earlier, few victims reported any type of follow-up contact from the agency. In the absence of outreach, victims were left with the impression that nothing was done with their report, that their crime did not matter to the agency. Accordingly, many victims were non-specific what the police should do to improve online reporting. They just wanted *some* type of response from the police. The lack of follow-up or observable response by the agency led many victims to question the utility of crime reporting. For others, the absence of outreach signified that the police did not care about them or take these incidents seriously. This inattention to procedural justice can result in a loss of trust or confidence in the agency. Several quotes illustrating these conclusions are provided below.

- “They didn't do anything at all. I guess doing SOMETHING would be a good place to start in making it a positive experience.”
- “No one from the Police Bureau has acknowledged or contacted me regarding the incident. There has been no attempt to address the crime. What is the point of even filing a report?”
- “Any level of staff, or customer service would have been helpful in the moment. Even if someone phoned and said I'm sorry this happened. That would have added trust.”

⁶ For example: “It's disgusting how the criminals are given free rein over the city and law-abiding property owners are ignored and scoffed at.”; “I'm not even sure the police are showing up for work. They need to do their jobs.”; “I get this is really a city council issue, rather than a police department issue. City council is much more concentrated on serving the needs of perpetrators.”

- “By ignoring us and the problems we face, they will only create a wider divide in our connection to each other and a general distrust of their focus and capabilities.”

Moving to the specific recommendations people offered for improving the police bureau’s response, the most common suggestion was to provide some type of personalized outreach after the online report is submitted (e.g., email, phone, in-person). Other victims suggested that actively investigating these crimes would indicate that the police bureau took these reports seriously, a key component of procedural justice for victims. This was particularly salient for people who had evidence of their crime (e.g., videos, photos), but had no means for sharing this information with the police in the online system.

- “The short answer to this question is that the police could have followed up with a phone call from a live officer saying they received the report and will keep an eye out for the property.”
- “A personal contact to let me know that something was being done would have increased my confidence and trust that my report would be dealt with.”
- “Show some effort, especially considering I provided photos of suspects from store footage, locations and a license plate number of the vehicle that took place in the crime. Practically everything I own was stolen.”

Assuming some type of investigation or response, victims recommended that the police bureau provide periodic updates on the status of their case. Continued communication would enhance perceptions of procedural justice by indicating that the person is valued by the agency. Other victims recognized that their crime could not easily be solved and/or that the police might not have the resources to actively investigate every online report. They wrote instead about the potential value of follow-up contacts highlighting the agency’s broader strategies for preventing these incidents. This type of communication might reinforce future crime reporting and build confidence in the police. A smaller number of people suggested that the police could use follow-up contacts to address victims’ information needs. This includes guidance on recovering stolen property and things people can do to reduce their likelihood of re-victimization.

- “It would have been great to get an email or phone call with a status update on the items that were stolen.”
- “Communicate what they are doing with the data from the report. Acknowledge that although they didn't catch anyone, at least they utilize the report to develop strategies.”
- “Send me information as to what they will do with my report, how many similar incidents have occurred in my area, and what they are doing to improve the situation.”
- “PPB has an opportunity to give advice to people based on the incident reported. If it's a theft, then provide information about how to protect your home/belongings. If it's violence, provide resources about DV, crime victims' assistance, etc.”

Another source of frustration for some victims was a lengthy delay between submitting their online report and the receipt of an official case number they could use for documenting the crime. Minimizing these delays could enhance procedural justice perceptions and improve opinions about the given agency.

- “The system doesn't give you a police report but only a submission number. You then must wait for someone to give you a report and there is no way to follow up. Took over two weeks for the submission to be ‘accepted’.”
- “Hire more analysts to process the reports sooner. My job needed the police report in order to send me a new laptop that was stolen.”

A final observation based on the qualitative data was the impact of a victim's expectations on their overall satisfaction with online reporting and the agency. In some cases, people expected an active response from the police, and they were disappointed when it did not happen. Other victims had lower expectations regarding the agency's response to their report. They were less likely to react negatively when the police did not follow up with them or actively investigate the crime.

- “I expected them to want more details or some sort of follow-up, but it was just approved like it was no big deal. Maybe it wasn't, but it felt like a huge deal for me and the lack of interest just sealed my feeling that nothing will happen with this report.”
- “In the report, we stated that we had security camera video of 2 people committing the theft. We expected that they would at least be interested in obtaining the video but they never contacted us.”
- “A reach out from an actual officer would have “improved the experience,” which is your question. However, given other, practical demands on the Police Bureau and the nature of my incident, I am not surprised nor did I expect someone to reach out to me.”

- “I don't expect a bike theft to get much attention in this climate. It is appropriate that the police focus on major crimes.”

4 Discussion

The present research highlights an important omission in the policing profession's growing commitment to procedural justice as a strategy for enhancing legitimacy. While considerable effort has gone into training police officers to listen, be respectful, remain neutral, and communicate trustworthy motives during contacts they initiate with members of the public, comparatively less attention has been paid to incorporating procedural justice into police communications with crime victims (van Dijk, 2015). Likewise, almost no consideration has been given to how the concepts of procedural justice should be integrated into police-citizen communications that are mediated by technology, or indeed, fully automated (Wells et al., 2023). Of particular importance to the current study is the use of technology that allows citizens to report property crimes online as opposed to communicating face-to-face with an officer.

Inattention to online reporting among academics and practitioners alike may have serious consequences for police-community relations at a time when trust in law enforcement is already low. Police agencies across the globe are adding or expanding their use of online reporting to address resource limitations (e.g., Bradford et al., 2022; Henning et al., 2023) and property crimes, which are currently the main focus when agencies offer online reporting account for a substantial proportion of all police-citizen contacts. Victimization is already associated with psychological distress and decreased confidence in the police (Bolger et al., 2021), and this may be exacerbated if victims have a negative encounter when reporting the crime (Bradford et al., 2009; see also Symonds, 2010). Moreover, property crimes rarely lead to distributive justice (e.g., recovery of property, arrest of the offender), elevating the importance of procedural justice for these victims (Bradford, 2010). Hence, the current study's goal of documenting how property

crime victims experience online reporting and whether they perceive this to be a procedurally just interaction with the police.

4.1 Summary of Key Findings

Does the online reporting system, largely devoid of direct officer contact and follow-up, harm perceptions of procedural justice and leave victims dissatisfied with the experience? Our data suggest that this may be the case. Our first major finding was that roughly one in eight victims rated the police bureau's online reporting system as difficult or very difficult to use. We suspect, however, that the actual number of people having difficulty was higher, since we only surveyed people who successfully completed their online report. It was not possible to document how many people initiated a report but were either unable to finalize the submission or got frustrated and timed out.

The specific difficulties reported by victims included several that relate to the technical aspects of the reporting software (Table 2). People described the user experience as clunky, cumbersome, and outdated in comparison to other interactive websites they use. The agency and/or vendor's decisions to enforce a 30-minute time limit for each section of the report, to have character limits in open-ended text boxes, and to require data entry in certain fields frustrated some users. Likewise, many victims were upset that the agency's online portal did not allow them to upload photos, videos, and other evidence regarding their crime. Victims interpreted this as the agency not taking these reports seriously. Others were negatively impacted by the portal's limited compatibility with mobile phones, redundancies in data entry, and system failures that resulted in delays or having to re-enter data. All of these issues speak to a lack of procedural justice during the reporting process.

A second category of complaints concerned aspects of the crime reporting experience that were largely independent of the technology used in the online portal (Table 3). For example, victims were often frustrated if they ended up waiting a long time to talk to a police dispatcher before being referred to the online system. Similarly, the agency's landing page for accessing the portal provided limited guidance, leaving many victims confused about selecting the correct category for their crime, especially in cases with multiple offenses. This is a critical decision point for victims given that subsequent questions are determined by the initial offense categorization. Once victims enter the actual reporting system, they may be confused by questions, get frustrated when questions are overly personal or not applicable to their crime, or they may be unprepared for the level of detail and time commitment required. Unfortunately, the police bureau provided little to no support for victims who encountered these difficulties, again harming perceptions of being heard and having voice, which are critical elements of procedural justice.

Our next major finding was that very few (16.7%) victims were satisfied with the agency's handling of their online crime report. Unfortunately, we do not have directly comparable data for local victims who reported to an officer. Other contact surveys, albeit using different forms of outreach, selection criteria, timing, and questions, find substantially higher levels of satisfaction. For example, the Mayor's Office for Policing and Crime (MOPAC; 2021) in London surveys 9,600 crime victims per year and they report overall satisfaction ratings in the 60-70% range. One factor that might contribute to our low satisfaction rating was the study's exclusive focus on online reporting. An unpublished study with the current law enforcement agency found that people who reported online were significantly less satisfied than people who reported in person (National Police Foundation, 2019). Likewise, McKee and colleagues (2022)

documented lower levels of satisfaction for online reporters in the MOPAC surveys as compared to victims using other reporting methods. This pattern again speaks to the potential for online reporting to harm rather than enhance perceptions of procedural justice among crime victims.

A third finding was that victims who experienced difficulties when using the agency's online portal were significantly less satisfied with the police bureau's handling of their crime report. This was true even while controlling for other factors that might impact satisfaction, highlighting the importance of the process on overall satisfaction with the outcome (i.e., procedural justice). If the process is difficult or confusing, people will be less satisfied in the end.

A final noteworthy finding was that very few victims, just 12.0%, received any type of follow-up contact from the local police bureau after receiving an auto-generated email with their incident report number. The minority of victims who did have a follow-up contact were significantly more satisfied with the police bureau's handling of their report than people who did not receive any outreach. Although this association was no longer statistically significant when controlling for other factors, our qualitative data overwhelmingly affirmed the importance of follow-up contacts as a determinant of victims' satisfaction with the police. People submitting online crime reports usually expect the agency to do something with this information. For many victims that means actively investigating the crime, identifying and arresting the offender, and/or recovering stolen property. Other victims appreciate the difficulties inherent in clearing property crimes and the fact that police resources are limited. Nevertheless, they still want the police to contact them and document the agency's strategies for reducing crime in the city. Live police follow-up may be an essential step in restoring procedural justice when using online reporting systems, an idea we explore further below.

4.2 Procedural Justice and Online Reporting

As previously noted, the concepts of procedural justice (e.g., voice, respect, neutrality, and trustworthy motives; Tyler & Lind, 1992) were largely derived from and applicable to interpersonal communication that happens person-to-person, whether by phone or through face-to-face interaction. These aspects may be absent when using an automated online reporting system that lacks the ability to relay these interpersonal concerns and feelings. The results of the present study, along with prior research on crime victims, highlight several ways that procedural justice might be better incorporated into online reporting.

First, it seems reasonable to conclude that the quality of technology used in an online portal, the integration of the platform into an agency's overall website, and the agency's communication protocols regarding online reporting are all important considerations when it comes to victims' opinions about the police (e.g., satisfaction, trust, confidence). Similar findings are discussed in other fields that have explored the adoption of self-service technology. Curran and Meuter (2005), for example, found that people were more willing to shift their banking transactions to ATMs when they perceived the technology was easy to use and safe. Medical studies show that people were more willing to access patient portals when the technology involved is easy to navigate (Irizarry et al., 2015). In general, the perceived benefits of new technology and its ease of use are two of the most influential factors determining whether people adopt and are satisfied with new self-service technology (Blut et al., 2016).

Simply put - technology matters. It is potentially harmful to ask large numbers of crime victims use a poorly designed and inadequately supported reporting system. It sends the message that the agency does not prioritize crime reporting (and those who report) enough to provide a better system, which can harm trust in the agency. Most victims in our study were using the online portal for the first time. They may still be emotionally distressed about the crime and

nervous about the reporting process, particularly after reading the agency's warning about false reporting (i.e., "Filing a false police report is a crime"). Others, given decades of training to call 911 in an emergency, will be frustrated that an officer was not dispatched to their crime scene. It seems ill advised to expect all of these people to independently navigate a complex, often poorly designed, crime reporting system.

As a first step, therefore, agencies should improve the usability of their online web pages. Treating victims with respect in the online world means providing them with a highly functional reporting system: one that does not frustrate or confuse them; one that provides sufficient guidance. Increasing the accessibility and usability of online websites might be accomplished in a variety of ways. Website design research suggests that key consideration should be given to things like navigation (e.g., consistent menu bars, visible links, search features, limited backtracking), content organization (e.g., cognitive architecture, hierarchal structure, information categorization, meaningful labels/headers, use of keywords), and design simplicity (e.g., uncluttered layout, consistency in design, minimization of redundancy; Garrett et al., 2016). Redesigning online reporting systems with these aspects in mind would help to improve the user experience for victims. Further, putting character limits on a victim's written responses and not allowing them to upload photos, videos, other pertinent information is akin to a police officer not granting a victim "voice." Removing these barriers may enhance perceptions of procedural justice. More care should also be paid to making online reporting mobile-friendly, as some victims do not have easy access to a desktop computer. Finally, forcing people to provide an answer to progress with the report, particularly when many questions are difficult to understand or questions arise, is detrimental. Providing live user support could help with this issue and other challenges victims face when using these systems.

Second, any communication, automated or not, associated with the online reporting system should incorporate elements of procedural justice. As evidenced by both the qualitative and quantitative findings in the current study, victims want a chance to be heard, express emotions, provide evidence of their victimization, be kept up to date on what is happening, and feel a part of the process – all of which can be lacking in an online reporting scenario. Indeed, victims have more favourable attitudes about the police when officers communicate that the crime should not have happened, when they attribute blame to the offender as opposed to the victim, when they take the case seriously and investigate where possible, and when they keep the victim informed of their progress (Elliott et al., 2012). Enhancing communications at each step of the crime reporting process, providing additional feedback, and letting victims know what their crime reports are being used for may assuage some of these concerns and enhance procedural justice perceptions in technology mediated communications.⁷

Further, offering in-person or live follow-up, when possible, would help address many of the barriers of the online system and its harm on procedural justice. Having officers available to listen, validate concerns, answer questions, and provide guidance on the next steps and process for victims would enhance victims' perceptions of being treated fairly and overall satisfaction. Indeed, the ease of contacting the police, whether the police took the incident seriously, and whether they made any follow-up contact are particularly salient factors when it comes to satisfaction with police response to victims (Bradford et al., 2009). Pairing a personalized police follow-up with an online report could help to accomplish these goals, as demonstrated by a

⁷ It is worth noting that the police bureau's landing page for the online portal was subsequently revised to address many of the issues documented by the current study. It now includes a video welcome by the police Chief that acknowledges the harm done, reinforces the victim's decision to report the crime, and explains how the agency uses the information. A second video details how to use the online platform and what to expect with regard to outcomes. The agency also disbanded the specialized assignment and now directs online reports to the applicable precinct for local processing.

recent study in the United Kingdom (McKee et al., 2022). Other victims may not need or want an individual follow-up to their case. However, they might want to know that the police are using their report to guide crime prevention efforts. It is important, therefore, for the police to communicate back to victims how their crime reports are being used and what steps the agency is taking to address these incidents. Without this type of feedback, victims feel left out of the process and unengaged, harming their perceptions of procedural justice.

4.3 Limitations

A number of limitations with the current study are worth noting. First, we conducted the study using data from a single law enforcement agency, so the generalizability of our findings should be noted with caution. That said, the agency in question relies on the most common online reporting platform used by police departments in the U.S., accounting for roughly two-thirds of the market in 2022 (Henning et al., 2023). Second, while we hoped to study all victims who accessed the agency's online crime reporting system, there are notable omissions in our data. For example, it seems likely that some people started the online reporting process, but ultimately declined to continue for various reasons. We were not able to document how often this happened nor capture feedback from this group. Third, only one-quarter of the victims contacted completed our survey, raising questions about the representativeness of the sample. Fourth, this study lacked a comparison group of victims who reported directly to an officer as opposed to using the online portal. This makes it impossible to compare satisfaction and perceptions of procedural justice across different reporting mechanisms.

A final limitation concerns our conceptualisation and measurement of procedural justice. We assessed whether it was easy or difficult to use the online reporting system and how satisfied people were with the police bureau's handling of their crime report. Procedural justice in the

context of direct interpersonal interactions more commonly focuses on things like treating people with respect, granting them voice, showing concern for the person's welfare and fairness in decisions. Attention to these behaviours during interactions with the public are believed to increase satisfaction and police legitimacy (Bradford et al., 2009; Bradford, 2011). Moreover, efforts are usually made to differentiate procedural justice (i.e., how people are treated during the interaction) from distributive justice (i.e., actions taken like issuing a citation, making an arrest). Our measure of satisfaction was ambiguous in this regard. The word "handled" could refer to distributive outcomes like whether the crime was investigated, whether stolen property was recovered, or whether the suspect was arrested. That said, we note that the vast majority of victims in the sample had no further contact with the police beyond an automated email with their final case number. Their interaction with the police was largely restricted to the reporting process alone. Also, the line between distributive and procedural justice is not always clear when it comes to victims. An important component of procedural justice for victims is that they perceive the police took them and the crime seriously (Elliott et al., 2012; 2014; Wemmers, 1996). Police actions that facilitate this perception include documenting the crime, investigating it, and attempting to identify the offender(s) involved, all of which also speak to distributive justice. In summary, we concur with others (e.g., Wells et al., 2023) that additional research is needed on the manifestation and measurement of procedural justice in the context of technology mediated communications.

5 Conclusion

Online crime reporting technology has become widely adopted within the U.S. and globally. More agencies are using online portals as the preferred method for reporting certain property crimes, with agencies relying on a small number of private vendors to provide and

manage this service. While this shift away from in-person reporting may increase police efficiency, it is occurring with insufficient attention to the potential impact on police effectiveness and perceived legitimacy. If victims do not feel they are supported and taken seriously when using online portals, then this push for efficiency may be at odds with concurrent calls for improved trust between the police and the communities they serve.

6 References

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Table 1. Characteristics of Victims Using Agency's Online Reporting System.

Victim Characteristics & Online Reporting	n ¹	% Cases
Gender		
Female	530	50.4%
Male	522	49.6%
Age		
18 to 34	277	25.5%
35 to 54	515	47.5%
55 or older	293	27.0%
Race		
White	878	84.8%
Non-White	157	15.2%
Ethnicity		
Non-Hispanic	939	92.6%
Hispanic/Latino	75	7.4%
Resident of City		
No	189	18.9%
Yes	811	81.1%
1 st Time Using Online Reporting System		
No	274	31.3%
Yes	602	68.7%
Device Used		
Mobile phone	209	32.2%
Desktop or laptop computer	441	67.8%
Type of Crime Reported		
Theft from MV/Theft of MV parts	301	35.0%
Vandalism	260	30.2%
Other	299	34.8%
Primary Reason for Reporting this Crime		
Needed report for insurance claim	192	31.4%
Wanted offender arrested/prop. recovered	164	26.8%
Wanted police to prevent similar crimes	186	30.4%
Other (e.g., it's a civic duty to report crime)	69	11.3%
Online System was Easy/Difficult to Use		
Very difficult	18	1.5%
Difficult	123	10.3%
Neither easy nor difficult	348	29.2%
Easy	550	46.1%
Very easy	154	12.9%
Follow-up Contact After Report		
No	887	88.0%
Yes	121	12.0%
Satisfaction with Police Handling of Report		
Very dissatisfied	243	20.7%
Dissatisfied	277	23.6%
Neither satisfied nor dissatisfied	457	39.0%
Satisfied	148	12.6%
Very satisfied	48	4.1%

¹Sample size varies across variables due to changes in the survey instrument over time and missing data.

Table 2. Challenges with the Online Reporting Technology.

Categories	Description	Sample Quotes ¹
Clunky User Interface	Many victims described the user interface as “clunky” or outdated in comparison to contemporary web-based platforms. This made it frustrating to navigate the system and accurately document the crime.	<ul style="list-style-type: none"> • The appearance of it is really outdated compared to experiences everywhere else on the web. It looks and functions like it is powered by a couple of hamsters in a wheel. • It was arduous to use. Very out of touch with current technology. • It's cumbersome and clunky and seemingly quite old.
Forced Limits	The software vendor or agency involved made several operational decisions that negatively impacted some victims. This includes a 30-minute countdown for each section that closes out the report if people exceed the limit, a 2,000-character limit on the narrative text box, and many questions require an answer to proceed, prompting some victims to enter inaccurate data.	<ul style="list-style-type: none"> • There is a time limit that makes it hard to compile the required information. • There is a character limit so I am unable to fully describe what took place. • Some of the "boxes" for replies had set parameters and limitations that made answering a guessing game as to what would be accepted. • My car's registration was stolen and I'm required to enter the dollar value. It doesn't really apply so I just put in a random value of \$100.
No Attachments Allowed	Victims often have supplemental evidence of their crime and want to share this with the police (e.g., photos, videos). While the system can accommodate file uploads, the agency blocks this feature due to a lack of resources for processing the information.	<ul style="list-style-type: none"> • I sent a request to the department for an email or other way to share a spreadsheet of all items stolen or to attach it to my report, there was no apparent way to do so with the online system. • I have video from our surveillance system and there is no place to upload the video. Even a place to upload a still photo would be helpful. • There is no place to upload images or videos of the crime taking place.
Trouble Updating Reports	People sometimes need to modify their initial report with additional information. While the vendor’s platform theoretically supports addendums, victims reported difficulties with the process.	<ul style="list-style-type: none"> • When I attempted to submit an update to the original report, I had to enter all the data again, and then it was rejected. • Creating an addendum required entering all the information in the initial report again. • Please don't require me to completely recreate the report to add an addendum. That's not how addendums work.
Mobile Phone Incompatibility	One-third of the victims surveyed used a mobile phone to submit their crime report. Phone users highlighted incompatibility issues with the web-based system.	<ul style="list-style-type: none"> • I had to go through the process multiple times as various issues kept occurring when trying to complete it with my mobile device. • Doing it on the phone is really difficult, the formatting is super small and not user friendly • It should be mobile-friendly. Didn't have my laptop while in crisis.

Data Entry Redundancies	Victims noted that the online system required duplication of data entry, increasing the time to finalize a report. They suggested that the software should be programmed to auto-populate fields using the information provided earlier.	<ul style="list-style-type: none"> • We shouldn't have to enter addresses so many times. Maybe it could automatically save the addresses. • A lot of repeat information is required. • It had me report the time and date multiple times in several different boxes which feels inefficient and unnecessary.
System Instability	Victims sometimes experienced crashes, freezing, or slow screen refreshes that complicated the reporting process. It is unclear whether this resulted from the platform itself or the user's technology (e.g., browser incompatibility, bandwidth).	<ul style="list-style-type: none"> • When the system worked it was easy, BUT it locked up several times so it took multiple attempts to get the report entered and submitted. • Slow, froze and lost information. • Kept crashing and deleting a ton of info about items stolen I had entered. • It kept taking me to irrelevant pages and then saying system error.
Misc. Technology Issues	Several victims were frustrated with the process of documenting their home address and the location where the current crime happened. Others noted that the online system did not make it clear whether their report was submitted.	<ul style="list-style-type: none"> • To enter the location of the crime you can't just enter an address in plain text. You have to select the direction in one drop-down menu, the street name in a text field, the 'type' of roadway in another drop-down menu, and then decide whether to accept the automated correction. • Was not sure the report was submitted. • I wasn't alerted in the process that the report was incomplete. Instead, an email was sent to my spam folder that I never saw.

¹All of the sample quotes in this report have undergone minor edits to improve readability.

Table 3. General Complaints About the User Experience with the Online Reporting System.

Categories	Description	Sample Quotes
Selecting the Right Crime	Correctly categorizing the crime at the start of the incident report was a common complaint. Other victims noted that the website gave no guidance on how to proceed when the incident involved multiple offenses.	<ul style="list-style-type: none"> • It was difficult at first trying to find the right crime. They list so many. • The site asks the user to determine the type of crime they are reporting but does not provide guidance on how to make that selection. • Multiple crimes occurred and the report only let me identify one. • There didn't seem to be a clear way to indicate situations where multiple crimes occurred. So, picking an option was tricky.
Questions that are Confusing or Not Applicable	Victims were sometimes confused by the questions in the reporting system or were frustrated when a question or response options did not fit their particular case. The online system provided no instructions for how these instances should be handled.	<ul style="list-style-type: none"> • Some of the questions seemed unduly complicated. • Multiple-choice options did not cover the specifics of my crime. • It was difficult to specify the classifications of what was stolen from my vehicle because it was an unusual item (breast pump) so it didn't fall into the regular options. • The options for reporting articles stolen were oddly specific but lacked more general options.
Time-Consuming	Victims complained that the online reporting process was burdensome, too many questions were asked, or the report took too long to complete.	<ul style="list-style-type: none"> • There are currently too many layers of pages that require reading about details and completion of forms. • There was way too much detail required for each item I had stolen out of my car - it took me forever! • Took a really long time and if not needed for my insurance would have given up and not even tried.
Insufficient Support	Victims noted that there were minimal instructions provided on the agency's website, that the reporting software offered limited guidance, and there was no option for accessing "live" help.	<ul style="list-style-type: none"> • It's complicated enough that there should be helpers or trained volunteers to navigate it. • Lack of clarity and helpful descriptions for some questions, and no place to go to for answers. • No one to speak to or ask questions.
Problematic Referral to the Online System	People are not always aware of the online reporting system so they called 911 or a non-emergency number. This can lead to lengthy delays in referring victims to the online system. Others report unpleasant interactions preceding the referral to the online system.	<ul style="list-style-type: none"> • First thing people do is call the non-emergency line, which took 45 minutes to reach someone. Then they tell you to do the online report because nobody is going to come out. • I waited on hold for over an hour on the non-emergency line only to be told I needed to file a report online. • I spoke with a dispatcher who directed me to the online system. He provided no empathy or resources for how to help with this problem.

Victim Lacked Information	Victims did not always have access to information requested by the online system and there was no way to document this in the report.	<ul style="list-style-type: none"> • I needed to know the value of the part that was stolen from my vehicle, but it's hard to know the value of something until you can get it fixed. • It asked me to provide a value for the damage to my car. I had no idea and had to guess. I put down \$800 and it turned out to be about \$2000. • My work truck was broken into & didn't have the license plate number but I couldn't skip that section and complete the form.
Impersonal Nature of Online Reporting	Several victims commented that the online system or agency's approach to online reporting was impersonal or insensitive.	<ul style="list-style-type: none"> • Very impersonal. Felt like every response was automated. • I would rather talk to a live human. • I felt that I needed a live person to talk to. It was impersonal.
Overly Personal Questions	A few victims questioned the need for the agency to collect victim demographic details like age, race, and sex.	<ul style="list-style-type: none"> • With some crimes certain details are important but for other crimes asking details about gender and ethnicity is not necessary and may turn some folks away. • Too much victim information was collected. You don't need my DOB, ethnicity, gender or other private information for a crime report.

Table 4. Factors Associated with Victims' Satisfaction with Police Handling of their Online Report.

Victim and Reporting Characteristics (reference group for regression)	Satisfaction		Satisfaction	
	Univariate ANOVA ¹		Multivariate Regression ¹	
	M (SD)	F	β	t
Gender		1.51		
Female	1.53 (1.03)			
Male	1.61 (1.11)			
Age		40.07***		
18 to 34	1.22 (1.06)		-.26	-5.15***
35 to 54	1.49 (1.02)		-.19	-4.03***
55 or older (ref)	1.98 (1.04)			
Race		5.39*		
White (ref)	1.60 (1.07)			
Non-White	1.38 (1.07)		.05	1.11
Ethnicity		4.72*		
Non-Hispanic (ref)	1.58 (1.06)			
Hispanic/Latino	1.31 (1.08)		-.04	-.86
Resident of City		5.75*		
No (ref)	1.39 (1.12)			
Yes	1.60 (1.05)		.03	.86
1 st Time Using Online Reporting System		.13		
No	1.54 (1.02)			
Yes	1.57 (1.09)			
Device Used for Reporting		5.03*		
Mobile phone	1.45 (1.14)		-.01	-.27
Desktop or laptop computer (ref)	1.66 (1.04)			
Type of Crime Reported		.59		
Theft from MV/Theft of MV parts	1.61 (1.07)			
Vandalism	1.52 (1.01)			
Other	1.53 (1.11)			
Primary Reason for Reporting this Crime		20.15***		
Needed report for insurance claim	1.71 (1.11)		-.10	-1.64
Wanted offender arrested/prop. recovered	1.10 (.99)		-.32	-5.32***
Wanted police to prevent similar crimes	1.70 (.94)		-.15	-2.47*
Other (ref)	2.12 (1.05)			
Follow-up Contact After Report		23.20***		
No (ref)	1.54 (1.05)			
Yes	2.03 (1.13)		.05	1.29
Online System was Easy/Difficult to Use		90.28***		
Difficult/Very difficult	.84 (.90)		-.28	-7.10***
Neither easy nor difficult	1.21 (.96)		-.29	-7.38***
Easy/Very easy (ref)	1.87 (1.04)			

Note: Sample size varies by comparison due to changes in the survey instrument and missing values.

¹Overall satisfaction scores ranged from (0) *Very dissatisfied* to (4) *Very satisfied*.

* $p < .05$, ** $p < .01$, *** $p < .001$.