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Public opinion and the immediate entry dilemma: A factorial survey experiment on active shooter response

M. Hunter Martaindale [a,b], Peter T. Tanksley [a,*]

[a] ALERRT Center – Texas State University, 601 University Drive, San Marcos, TX 78666, United States of America
[b] School of Criminal Justice and Criminology – Texas State University, 601 University Drive, San Marcos, TX 78666, United States of America

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ABSTRACT

Active shooter events remain a critical public safety concern, with public expectations often centered on how quickly police intervene to stop the threat. While recent studies have examined how law enforcement officers view their role in these events, no research has directly measured citizen perceptions of officer actions. This study addresses that gap by using a quasi-experimental factorial survey with two national samples of U.S. adults. Respondents (n = 767, n = 827) each evaluated 10 randomly assigned vignettes depicting officer decisions during active shooter scenarios, resulting in more than 15,800 vignette assessments. Results show that citizens' judgments of appropriateness were driven less by situational "driving forces," such as gunfire or wounded victims, and more by symbolic features of the event, particularly the location. Citizens strongly supported immediate entry in schools and parades, while support was lower in large malls where waiting for backup was viewed as more acceptable. These findings contrast with prior officer-focused research, which found that police judgments are primarily influenced by threat cues. The divergence underscores that public legitimacy cannot be fully understood through officer perspectives alone. Law enforcement policy and training may not be guided by public preferences, but citizen perceptions shape legitimacy, accountability, and trust following high-profile events. Future research should continue to explore how public expectations intersect with professional practices under conditions of extreme uncertainty.

1. Introduction

Active shooter events remain a pressing public safety concern in the United States. These incidents occur without warning, require immediate intervention by first responders, and generate widespread fear within the community (U.S. Department of Homeland Security, 2025). In the aftermath of highly publicized tragedies (e.g., the 2018 attack at Marjory Stoneman Douglas High School in Parkland, FL or the 2023 attack at Robb Elementary School in Uvalde, TX) public attention often centers on how quickly law enforcement officers (LEOs) intervene to stop the threat and assist victims. In some cases, rapid entry has been heralded as effective and decisive (e.g., 2023 attack at Covenant School in Nashville, TN), while in others, delayed action has resulted in harsh public criticism, litigation, and even criminal charges against LEOs who failed to act (Spencer, 2023). What is consistent across these cases is the central role of public expectations. Citizens are the intended beneficiaries of LEO intervention, yet their views on what constitutes an appropriate response to an active shooter event remain largely understudied.

Despite recent scholarship examining law enforcement response to active shooter events (e.g., Martaindale et al., 2025; Phillips, 2020), an important gap remains. Public expectations are central to debates about active shooter response, yet no peer-reviewed study has directly assessed how citizens evaluate LEO decisions in these scenarios. What is known about citizen views comes primarily from media reporting and public reaction after specific events, such as the widespread criticism of law enforcement's delayed response at Robb Elementary School in Uvalde, Texas (see, for example, Guerrero, 2022; Russell, 2023). The absence of systematic research leaves law enforcement executives and policymakers without clear evidence of whether citizen judgments align with LEO perspectives, or whether meaningful divergences exist.

The present study addresses this gap by replicating the vignette-based experimental design used in prior LEO studies, but with two national samples of citizens from the United States. By asking respondents to judge the appropriateness of a fictitious LEO's decision in various active shooter scenarios, the study offers the first experimental evidence

* Corresponding author.
E-mail address: peter_tanksley@txstate.edu (P.T. Tanksley).

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of public perceptions regarding LEO response options. These insights provide an essential complement to existing research on LEO perspectives and contribute to broader discussions about public trust, legitimacy, and the alignment of community expectations with LEO practices.

2. Literature review

2.1. Law enforcement perspectives

Phillips (2020) conducted the first empirical study of LEO views on active shooter response through a quasi-experimental vignette design. LEOs in Texas ($n = 99$) and New York ($n = 370$) were asked to evaluate the appropriateness of various response options, such as waiting for backup, establishing a perimeter, or immediately entering the building. Results showed that judgments were most strongly influenced by whether gunfire was heard, highlighting the role of situational cues. Importantly, Phillips found that LEOs consistently expressed greater agreement with delayed responses (such as waiting for additional units or SWAT to arrive) than with immediate solo entry. This tendency underscored the continued influence of LEO safety culture, in which the risks of confronting an armed offender without backup tempered support for rapid intervention. Phillips argued that this cultural emphasis on self-preservation sometimes conflicted with public expectations that LEOs act decisively and without hesitation to stop the killing.

Martaindale et al. (2025) extended this line of research with a larger and more diverse national sample of 796 LEOs across 43 states. Using a similar factorial survey design, they tested a universe of 324 possible vignettes and incorporated additional situational variables intended to capture the concept of "driving force," such as the presence of fleeing or wounded victims and the intensity of gunfire. In contrast to Phillips's findings, Martaindale et al. observed strong endorsement of immediate entry when such driving forces were present. Respondents were nearly 80 times more likely to support immediate entry under conditions of rapid gunfire compared to scenarios lacking this cue. These results suggest that when scenarios clearly signal ongoing harm, contemporary LEOs view immediate intervention as appropriate, bringing LEO expectations into closer alignment with evolving training protocols (Martaindale & Blair, 2019).

Taken together, Phillips (2020) and Martaindale et al. (2025) establish a foundation for understanding law enforcement perspectives on active shooter response. Phillips found that LEOs were generally reluctant to endorse immediate solo entry and instead preferred delayed responses unless compelling situational cues were present. In contrast, Martaindale et al. found overwhelming support for immediate entry when indicators of ongoing harm such as rapid gunfire or fleeing victims were evident. Both studies highlight the central role of contextual cues in shaping officer judgments but also underscore the limits of current knowledge, as these insights are restricted to law enforcement professionals and do not extend to the general public.

2.2. Public expectations of active shooter response

Although citizens can be directly affected by how LEOs respond to an active shooter event, their perceptions have not been the subject of rigorous empirical study. Instead, what is known comes primarily from journalistic accounts and community reactions following specific tragedies. After the 2022 shooting at Robb Elementary School, parents and community members openly criticized officers for failing to act swiftly, framing the delayed response as a betrayal of public trust (Guerrero, 2022; Russell, 2023). Similarly, after the 2018 shooting at Marjory Stoneman Douglas High School in Parkland, Florida, the school resource officer who did not enter the building faced both termination and criminal charges, although he was later acquitted, reflecting intense public demand for immediate intervention (Spencer, 2023). These examples illustrate that public judgments of officer actions carry significant consequences for accountability, yet they remain anecdotal rather than systematically measured.

Recent scholarly work indirectly touches on citizen perspectives of active shooter response by examining preparedness campaigns and public-facing guidance. Research on civilian decision-making during active shooter events focused on strategies such as "Run, Hide, Fight," noting that public understanding of these options can shape perceptions of both personal safety and police effectiveness (Hong, 2023). While such studies provide insight into behavioral expectations, they do not directly address how citizens evaluate the actions of law enforcement officers responding to an active shooter event.

Some research has explored public opinion on the prevention of, and policy responses to, mass shootings. National surveys demonstrate consistent, cross-partisan support for evidence-based strategies designed to reduce gun violence, including universal background checks, firearm restrictions, target hardening, and community-based prevention programs (Barry et al., 2018; Burton et al., 2021). Other work highlights support for school-based threat-assessment programs and related safety planning that identify and manage potential risks before violence occurs (Cornell et al., 2018; Cornell & Maeng, 2018; Jonson, 2017). These findings indicate that citizens view mass shootings as preventable events requiring both proactive and decisive responses from institutions, including law enforcement. Such expectations likely influence how the public evaluates LEO's actions during an active shooter event, particularly whether they perceive those actions as sufficiently immediate and protective.

2.3. Citizen views of police work

Understanding how citizens view law enforcement more broadly provides important context for examining perceptions of active shooter response. Research consistently shows that public attitudes toward LEOs are complex and shaped by both personal experiences and broader social conditions. A robust body of research finds that perceptions of procedural justice, which refers to whether LEOs act fairly, treat people with respect, and provide explanations for their actions, are among the strongest predictors of legitimacy and support for law enforcement (Jackson & Bradford, 2010; Tankebe, 2013).

Demographic factors also shape citizen attitudes, although effects are not uniform across studies. Race and ethnicity are some of the most consistent predictors, with Black and Hispanic residents generally reporting less favorable views of LEOs than White residents (Gau, 2010; Weitzer & Tuch, 2005). Age and socioeconomic status play a role as well, with older and higher-income individuals often expressing more positive attitudes toward LEOs compared to younger and lower-income residents (Brown & Benedict, 2002; Wu et al., 2009). Community context further shapes these attitudes (Weisburd et al., 2024). Urban residents tend to hold more critical views than those in suburban or rural areas. At the same time, local policing practices and historical relationships with the community can alter these patterns (Nix & Wolfe, 2016; Weitzer, 2010). Citizen evaluations of LEO performance, such as crime control effectiveness, responsiveness, and visibility, also remain central to overall satisfaction (Reisig & Parks, 2000; Skogan, 2006).

In the years following high-profile incidents such as the death of George Floyd, public attitudes toward police have shifted. National data show that trust and confidence declined sharply from 2020 to 2023, followed by a partial recovery in 2024 (Brenan, 2024). Recent research also suggests that legitimacy judgments are increasingly shaped by broader perceptions of systematic fairness, civic engagement, and political identity rather than personal encounters alone (Gibson, 2024; Mancini et al., 2025). Mancini and colleagues found that civic engagement was the strongest predictor of positive perceptions of police fairness, indicating that trust in law enforcement may be partly rooted in broader trust in governance. Additionally, perceptions of hostile media coverage and bias can amplify both public and officer distrust, influencing how high-profile law enforcement events are interpreted by citizens (Nix & Pickett, 2017).

Overall, this literature suggests that public perceptions of LEOs are multidimensional and contingent on both individual characteristics and community context. In the post-George Floyd era, these attitudes have become more dynamic, reflecting heightened sensitivity to issues of fairness, accountability, and transparency. This evolving environment provides essential context for interpreting how citizens evaluate police performance during high-stakes events such responding to an active shooter event.

2.4. Contribution of the present study

This study extends prior research by systematically examining how citizens judge LEO actions in active shooter scenarios. Using the same quasi-experimental vignette-based methodology as Phillips (2020) and Martaindale et al. (2025), but applied to civilian samples, the design allows for direct comparison between professional and public perspectives. In doing so, it provides the first empirical evidence of how citizens evaluate officer decisions to wait for backup, establish a perimeter, or immediately enter the attack location.

Understanding these perceptions is important for several reasons. First, public expectations shape the context within which law enforcement agencies operate and can influence policy debates following high-profile incidents. Second, citizen judgments can reveal areas of alignment or divergence with LEO perspectives, offering valuable insight into potential sources of tension or legitimacy challenges. Finally, incorporating citizen perspectives into the scholarly conversation ensures that discussions of active shooter response reflect the views of both those who respond and those they are sworn to protect.

3. Methods

3.1. Data

Qualtrics research panels were commissioned to collect nationwide non-LEO responses for two factorial surveys. The first survey directly replicated the vignette design used by Martaindale et al. (2025). The second survey modified the location factor within the vignette and added a qualifying question regarding parenthood. Each vignette included six factors that consist of attack location (3 levels), officer weaponry (2 levels), backup response time (3 levels), scene characteristics (3 levels), gunfire (2 levels), and the officer's decision (3 levels). This resulted in a universe of 324 possible vignettes ($3 \times 2 \times 3 \times 3 \times 2$ x 3). As with Martaindale et al. (2025), each respondent received 10 randomly selected vignettes from the universe. Because the factors were experimentally manipulated and vignettes were randomly distributed, the vignette design meets the core criteria of experimental design by enabling random assignment of respondents to unique conditions (Aguinis and Bradley, 2014; Hainmueller et al., 2015; Mize & Manago, 2022; Nix et al., 2017). A copy of the vignettes used is in **Appendix A**.

For each survey, the research team requested 1000 randomly selected participants from the Qualtrics research panel (www.qualtrics.com). Descriptive statistics for both survey samples are provided in Table 1 and described further in the **Results** section.

3.2. Measures

3.2.1. Dependent variable

The dependent variable captured respondents' assessments of the appropriateness of the LEO's action in each vignette. Participants were asked, "*How appropriate was the officer's choice in this situation?*" and provided their response on a sliding scale from 0 (*not at all appropriate*) to 10 (*completely appropriate*).

3.2.2. Independent variables

The independent variables included both respondent demographics (see Table 1) and the experimentally varied vignette factors. For Sample 1, the *Location* was presented as a convenience store, grocery store, or large mall, whereas Sample 2 substituted holiday parades and K-12 schools for two of the locations while retaining the grocery store as a common reference point. According to the latest active attack/shooter data, places of commerce, outdoor spaces, and schools are the top three attack locations (see www.activeattackdata.org). A holiday parade was chosen to signify the outdoor spaces component. The *Unit* was varied to indicate whether the responding unit was equipped with a pistol alone or both a pistol and a rifle. *Backup* arrival times were described as less than two minutes, two to five minutes, or more than five minutes. The *Scene* was depicted as calm, chaotic with people fleeing, or chaotic with wounded victims fleeing the scene.[1] *Gunfire* was either absent or described as continuous and rapid. Finally, the LEO's *Decision* was presented as either establishing a perimeter and waiting for a SWAT team, waiting for additional officers before entering, or immediately entering the location. Each factor was dummy coded as present (1) or absent (0) for analysis.

Table 1
Descriptive statistics of demographic variables across survey 1 (n = 767) and survey 2 (n = 827).

Variable	Survey 1 N = 767[1]	Survey 2 N = 827[1]	p-value[2]
Age	46 (33, 63)	46 (34, 63)	0.6
Sex[3]			<0.001
Female	591 (77 %)	529 (64 %)	
Male	167 (22 %)	298 (36 %)	
Non-binary / third gender	9 (1.2 %)	0 (0 %)	
Race			<0.001
White or Caucasian	600 (78 %)	619 (75 %)	
Black or African American	83 (11 %)	144 (17 %)	
Asian or Pacific Islander	41 (5.3 %)	28 (3.4 %)	
Multiracial or Biracial	23 (3.0 %)	15 (1.8 %)	
Native American or Alaskan Native	18 (2.3 %)	16 (1.9 %)	
Middle Eastern	2 (0.3 %)	5 (0.6 %)	
Hispanic	69 (9.0 %)	103 (12 %)	0.026
Education			>0.9
Less than high school	22 (2.9 %)	25 (3.0 %)	
High school diploma or GED	225 (29 %)	250 (30 %)	
Some college (no degree)	189 (25 %)	191 (23 %)	
Associate's degree	91 (12 %)	105 (13 %)	
Bachelor's degree	164 (21 %)	178 (22 %)	
Master's degree	67 (8.7 %)	67 (8.1 %)	
Professional doctorate/PhD	9 (1.2 %)	11 (1.3 %)	
Region			0.001
South	298 (39 %)	318 (38 %)	
West	173 (23 %)	133 (16 %)	
Midwest	161 (21 %)	180 (22 %)	
Northeast	135 (18 %)	196 (24 %)	
Children[4]	–	223 (27 %)	
Vignettes completed			0.084
8	4 (0.5 %)	1 (0.1 %)	
9	8 (1.0 %)	18 (2.2 %)	
10	755 (98 %)	808 (98 %)	

[1] Median (Q1, Q3); n (%).
[2] Wilcoxon rank sum test; Fisher's exact test; Pearson's Chi-squared test.
[3] One individual was dropped from survey 2 who specified "Non-binary/third gender" to avoid unstable estimates.
[4] The child variable was not asked of survey 1.

3.3. Analytic approach

We analyzed survey responses using mixed effects logistic regression, where the appropriateness of police responses was regressed on vignette

[1] The inclusion of a "calm" scene condition reflects real-world scenarios in which officers may initially encounter no overt indicators of harm or a driving force (as seen in events such as the 2023 Covenant School attack in Nashville, TN) allowing assessment of judgments under conditions of initial ambiguity.

factors, their interactions, and a vector of demographic covariates. We chose to dichotomize the appropriateness variable due to several features of its distribution in our samples that made it inappropriate to model as a continuous variable (see **Fig. S1**). For instance, there was evidence of both ceiling and floor effects (i.e., piling up of ratings at values 0 and 10) as well as clustering (i.e., small normal distributions) centered on integers. Due to the pronounced level of ceiling/floor effects, we did not use a linear model as they often produce nonsensical estimates and predictions in such circumstances. Instead, we chose a conservative approach of dichotomizing appropriateness ratings such that scores of $\geq$5 received a score of 1 and 0 otherwise. This approach is not ideal due to the inherent loss of information in the response variable. However, dichotomization is useful in this situation because it captures the essential distinction between individuals who were generally approving/disapproving of the police action in the vignette without making strong assumptions about the distribution of appropriateness scores. Other approaches (e.g., beta regression, ordered logistic regression) may have more flexibility to accommodate some of the specific characteristics of the outcome distribution but their flexibility comes at the cost interpretability. Thus, we adopted a two-fold strategy: (1) model dichotomous appropriateness scores using a logistic regression model and then (2) assess the robustness of our results using an ordered logistic (i.e., ordinal regression) model that incorporates more information from the original variable. To account for nesting of vignettes within respondents, we fit models using random intercepts at the respondent level (i.e., level 2). This allowed us to treat observations at the vignette level (i.e., level 1) as independent from other responses from the same respondent. This approach has the benefit of increasing statistical power through multiple observations (e.g., 10 vignettes per respondent) while also attending to the independence assumption of our model.[2]

Surveys 1 and 2 were analyzed separately. For each, we fit two models. The first model contained main effects only. The second model included multiplicative interactions between *Decision* and the vignette factors of *Gunfire*, *Scene*, and *Location*.[3] Given the inherent defugalty of using multiplicative interaction terms in a logistic framework (Mustillo et al., 2018), we also fit linear probability models to confirm all statistically significant interactions. All coefficients were exponentiated and reported as odds ratios, which indicate the change in the odds of judging a LEO response as appropriate ("yes") given the specific law enforcement response in a vignette. All analyses were conducted using R statistical software (v4.5.1; R Core Team, 2025).

4. Results

Following the survey period, survey responses were collected and all observations from individuals who acknowledged having (1) a law enforcement background, (2) a military background, or (3) had family members with a law enforcement background were removed. We additionally removed observations from individuals who completed fewer than eight vignettes or who failed to provide responses on demographic covariates. One additional individual was removed from sample 2 because they were the only individual in the analytic sample who reported "non-binary/third gender" on the sex covariate. These procedures resulted in analytic samples of 767 individuals ($n_{Observations}$ = 7630) for Survey 1 and 827 individuals for Survey 2 ($n_{Observations}$ = 8214) (see Table 1). We detected no statistically significant differences between the survey samples in terms of age, education, or the number of vignettes completed. We did, however, observe differences across the variables of sex, race, Hispanic origin, and region of the country. All variables listed were included in each model as covariates.

4.1.1. What situational factors impact citizens' perceptions of police action?

Across the three situational factors we tested (i.e., gunfire, scene, location), respondents in Survey 1 reported similar perceptions of the appropriateness of each police decision. However, we observed three situations where the perceived appropriateness of police action differed, as indicated by statistically significant multiplicative interaction terms (see Table 2).[4] To facilitate better understanding of results, we calculated the estimated marginal means of the predicted probabilities of each grouping within an interaction term. These predicted probabilities are displayed in Fig. 1 and each of the statistically significant interactions described is indicated using its corresponding *p*-value.

The first situation involved presence of visual cues denoting the presence of driving force (Fig. 1, **Panel A**). Specifically, vignettes in which officers who chose to wait for additional officers instead of SWAT were rated as less appropriate when wounded or bleeding individuals were seen fleeing the scene (OR = 0.63, 95 % CI = [0.41, 0.85]). The next two statistically significant interactions concerned the location type (Fig. 1B). Specifically, the appropriateness of an officer choosing to make immediate entry into a location depended on the size of the location. When the location was relatively small (i.e., a convenience store), immediate entry was viewed as more appropriate than waiting for SWAT (OR = 1.58, 95 % CI = [1.04, 2.13]). The opposite was true for large buildings (i.e., a large mall), with immediate entry receiving lower appropriateness ratings (OR = 0.62, 95 % CI = [0.4, 0.84]).

4.1.2. What about locations with high emotional valence?

Although most active attacks occur at places of business, citizens' perceptions of police decisions may nonetheless be impacted by other location types (i.e., location types historically associated with the high fatality events; e.g., schools). Survey 2 investigated this possibility by modifying the vignette factor for location: the grocery store location was retained as a common reference point, but convenience store and large mall were substituted for holiday parades and K-12. Using the new location variable, we refit the original models used for the second survey (see Table 3). The two new levels of the location variable produced statistically significant differences in appropriateness ratings (Fig. 1C). Specifically, compared to waiting for SWAT, immediate entry by an officer was rated as more appropriate when the location was either a holiday parade (OR = 1.51, 95 % CI = [0.99, 2.03]) or a K-12 school (OR = 2.45, 95 % CI = [1.61, 3.28]).[5] We did not replicate the negative interaction effect observed in the first survey between vignette factors for *Decision* and *Scene* (i.e., waiting of other officers when wounded/bleeding people are seen fleeing). Though not statistically significant (OR = 0.87, 95 % CI = [0.57, 1.17]), this effect in Survey 2 was at least directionally consistent with the result of Survey 1.

4.2. Sensitivity and robustness

The above findings highlight threats to K-12 schools as a cardinal case when citizens believe that it is most appropriate for police to approach rapidly instead of waiting for backup. It is possible that this finding is driven not driven by a concern for the safety of children that is shared across the general public but instead by the increased concern of parents imaging their own child in such a terrifying situation. To

[2] Qualtrics' *Randomizer* feature was used within the survey flow to ensure each respondent viewed only unique vignette combinations. Further, the *Evenly Present Elements* option was enabled to balance vignette distributions across respondents.

[3] Levels within *Location* differed between surveys.

[4] All three interactions were also observed using a linear probability approach.

[5] Both interactions with the location variable were also observed using a linear probability approach.

Table 2
Mixed effects logistic regressions of appropriateness of LEO action on vignette factors (Survey 1).

Vignette Factor	Model 2.1[1] *OR* (95 % CI)[2]	Model 2.2[1] *OR* (95 % CI)[2]
(Intercept)	7.61*** [3.78, 15.3]	6.67*** [3.22, 13.8]
Unit		
Patrol unit armed with pistol	–	–
Patrol unit armed with pistol and rifle	0.91 [0.81, 1.02]	0.91 [0.82, 1.03]
Backup		
Less than 2 min	–	–
2-5 min	1.01 [0.88, 1.17]	1.01 [0.88, 1.17]
More than 5 min	0.86* [0.75, 0.99]	0.86* [0.75, 0.99]
Decision		
Establish a perimeter, wait for a SWAT team	–	–
Wait for additional officers	0.90 [0.78, 1.04]	1.25 [0.88, 1.79]
Enter the building/location without waiting	0.72*** [0.63, 0.83]	0.76 [0.54, 1.07]
Gunfire		
No gunfire	–	–
Continuous, rapid gunfire	1.03 [0.92, 1.16]	1.10 [0.90, 1.35]
Scene		
Appears normal	–	–
People running from building/location	0.97 [0.85, 1.12]	1.13 [0.87, 1.45]
Wounded/bleeding people running from building/location	0.89 [0.78, 1.03]	1.03 [0.80, 1.32]
Location		
Grocery store (max occupancy 500 people)	–	–
*Convenience store (*max *occupancy 20 people)*	0.81** [0.71, 0.93]	0.66** [0.52, 0.85]
Large mall (max occupancy 5000 people)	0.97 [0.84, 1.12]	1.21 [0.93, 1.57]
Decision * Gunfire		
*Wait for additional officers * Continuous, rapid gunfire*		0.82 [0.61, 1.09]
*Enter the building/location without waiting * Continuous, rapid gunfire*		1.00 [0.76, 1.33]
Decision * Scene		
*Wait for additional officers * People running from building/location*		0.78 [0.54, 1.12]
*Enter the building/location without waiting * People running from building/location*		0.83 [0.59, 1.18]
*Wait for additional officers * Wounded/bleeding people running from building/location*		0.63* [0.45, 0.90]
*Enter the building/location without waiting * Wounded/bleeding people running from building/location*		1.02 [0.72, 1.43]
Decision * Location		
*Wait for additional officers * Convenience store (max occupancy 20 people)*		1.14 [0.81, 1.61]
*Enter the building/location without waiting * Convenience store (max occupancy 20 people)*		1.58** [1.12, 2.24]
*Wait for additional officers * Large mall (max occupancy 5000 people)*		0.89 [0.62, 1.27]
*Enter the building/location without waiting * Large mall (max occupancy 5000 people)*		0.62** [0.44, 0.88]
AIC	8376	8352
BIC	8584	8629
No. Obs.	7630	7630

Abbreviations: CI = Confidence Interval, OR = Odds Ratio.
[1] All models adjust for age, sex, race, hispanicity, education, and region.
[2] *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

investigate the generality of the K-12 effect, Survey 2 also asked respondents if they had children of their own (27 % indicated that they did). We assessed the sensitivity of our results to the parenthood effect by re-estimating model 33.2 and while including a binary variable for *Children* as a covariate, accounting for the impact on perceptions of appropriateness due to being a parent (**Table S1, Model S1.1**). We also estimated a new model that included a three-way interaction between *Decision*, *Location*, and *Children*, effectively allowing the detected interaction for K-12 schools and the decision to enter without backup to vary between parents and non-parents (**Model S1.2**). The results of this analysis did not substantively differ from those observed for Survey 2, indicating that the concern for K-12 schools in active shooter events appears to be shared across the general public and is not peculiar to parents alone.

To assess the robustness of our findings to the modeling approach used here, we re-estimated our main models in each survey sample using an ordered logistic regression. Appropriateness scores were rounded to integers (i.e., using the half-round-up method) and modeled as an ordinal variable. This approach incorporates more information than the dichotomization method used in the main analysis, resulting in increased statistical power. All results reported above were corroborated in terms of both direction and statistical significance (see **Tables S2** and **S3**). Additionally, the magnitude of effects was largely consistent between the binary logistic and ordered logistic approaches, though a mild attenuation across effect sizes was observed. Finally, two additional statistically significant interactions were detected. Compared to waiting for SWAT, the presence of rapid, continuous gunfire resulted in lower appropriateness scores for officers who chose to wait for additional officers (survey 1) and higher scores for officers who pursued immediate entry (survey 2). These findings provide an auditory complement to the findings regarding visual cues of the presence of driving force. These additional findings likely emerged due to the increased statistical power of the ordered logistic approach and the increased efficiency of the standard errors–the effect sizes for these results differed only marginally between approaches.

5. Discussion

This study provides the first systematic evidence of how U.S. citizens evaluate LEO decisions during active shooter events, extending prior research that has focused exclusively on law enforcement perspectives. Whereas Phillips (2020) and Martaindale et al. (2025) demonstrated that LEOs' judgments are strongly shaped by the presence of a "driving force," such as active gunfire or wounded victims, the present findings suggest that citizens rely on a somewhat different combination of evaluative criteria. While citizens showed sensitivity to indicators of ongoing harm (e.g., wounded victims fleeing the scene), they were not as dominant in shaping their overall evaluation as they were for law enforcement. Specifically, respondents placed greater emphasis on the type of location rather than the situational cues emphasized in LEO decision-making.

Citizens viewed immediate entry as more appropriate in schools and parades (Survey 2), but less appropriate in large malls (Survey 1). In contrast, LEOs in Martaindale et al.'s national sample overwhelmingly supported immediate entry when driving forces were present, regardless of location. Phillips similarly found that LEOs were reluctant to endorse solo entry absent compelling situational cues, again pointing to the salience of threat indicators in professional judgments. Taken together, these comparisons highlight a key divergence: LEOs appear to frame their decisions through the lens of risk and immediacy of harm for victims, while citizens are more attuned to the symbolic weight of particular locations, especially those associated with children (as seen in Survey 2).

This divergence has important implications. On one hand, the findings suggest that public expectations for rapid entry are heightened in contexts that carry strong cultural and emotional significance, such as K–12 schools. On the other hand, the relatively lower support for solo entry in large malls indicates that citizens may calibrate their expectations based on perceived environmental complexity or scale. In practice, however, every setting poses distinct tactical challenges. While malls may have large open areas and multiple entry points, schools often

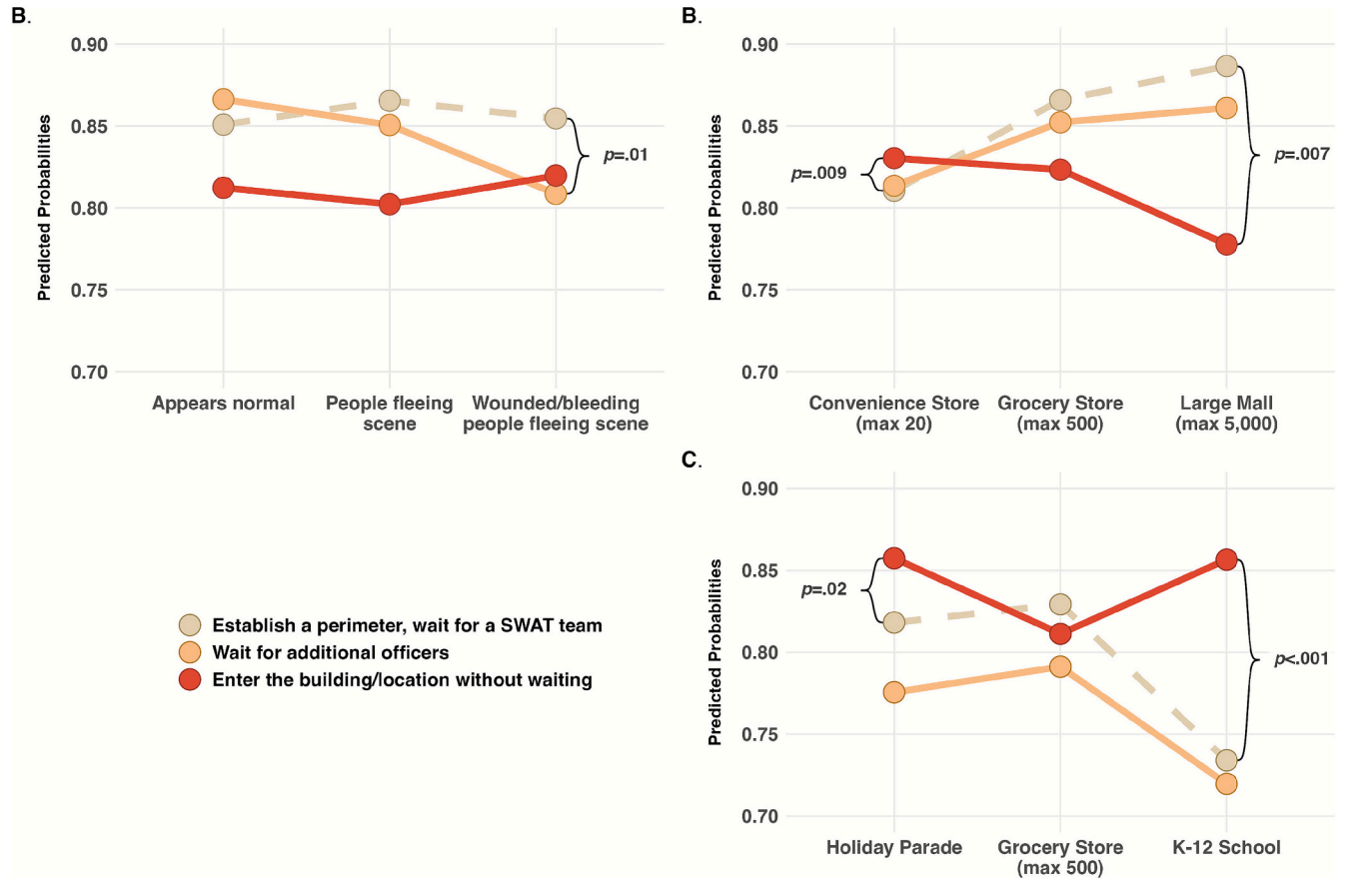

Fig. 1. Estimated marginal means of model predicted probabilities for each statistically significant interaction identified using mixed effects logistic regression in surveys 1 (Panels A & B) and 2 (Panel C). For all models (and panels), the reference category for the response variable was "Establish a parameter, wait for a SWAT team" and is represented by a dashed line, with statistically significant results representing departures in perceived appropriateness of different police responses compared to this category. *P*-values correspond to the p-values of the interaction term in the original model. Note: Panels B & C share the "Grocery store (max 500)" category that serves as a common reference point but are otherwise distinct between surveys.

contain long hallways and numerous enclosed spaces. Public perceptions of what makes a scene complex and worthy of waiting for backup may therefore reflect symbolic or intuitive reasoning rather than operational realities faced by responding officers. This finding may also reflect a broader perceptual bias, in which citizens conflate environmental size with risk or uncertainty, leading them to view caution as more appropriate even when immediate action could save lives. Such responses illustrate the complexity, and at times inconsistency, of public reasoning about police decision-making when under immediate threat. These patterns do not imply that agencies should alter response protocols based on public preferences about certain locations. Instead, they highlight why public discourse and criticism may be especially intense following incidents at symbolic locations such as schools, where expectations for rapid intervention are culturally amplified.

By directly comparing citizen perceptions to LEO perspectives, this study shows that the alignment between public and professional expectations related to active shooter response cannot be assumed. LEOs are generally trained and expected to make immediate entry, even when civilians may view waiting for backup as more appropriate in certain venues. This divergence may help explain why some officers have faced criminal or administrative charges following active shooter events in which their actions were judged against public expectations rather than established training doctrine. While public opinion will not dictate operational policy or training requirements, understanding these perceptions is critical for anticipating legitimacy challenges. Public evaluations shape discourse, frame accountability debates, and help explain why incidents at certain locations generate stronger criticism than others.

A further contribution of this study lies in how it connects to broader research on citizen evaluations of law enforcement. Decades of scholarship on procedural justice demonstrates that citizens care not only about outcomes but also about whether officers act in ways that reflect fairness, respect, and responsiveness to community concerns (Jackson & Bradford, 2010). In the context of active shooter response, these principles manifest in expectations that LEOs will act swiftly to protect vulnerable populations, even at increased personal risk. The strong support for immediate entry in K–12 schools reflects this dynamic: citizens interpret delayed action in such contexts as a violation of the implicit social contract that LEOs exist to safeguard children.

The divergence between citizen and LEO perspectives observed here also resonates with prior research documenting differences in how the two groups evaluate different aspects of law enforcement. Studies of use of force, for example, show that LEOs often frame their actions in terms of tactical necessity, whereas citizens may view the same encounters as excessive or inappropriate (Alpert & Dunham, 2004; Mastrofski et al., 1996). More recent work has demonstrated similar divides in judgments of lethal force, with citizens and LEOs differing in how they assess the justifiability and culpability of self-defense by LEOs compared to civilians (Marier, 2024). Likewise, research on community policing finds that law enforcement frequently emphasizes crime control effectiveness, while citizens place greater value on visibility, communication, and responsiveness (Reisig & Parks, 2000; Skogan, 2006). The present findings extend these discrepancies into the domain of active shooter response, showing that while LEOs emphasize situational "driving

Table 3
Mixed effect logistic regressions of appropriateness of LEO action on vignette factors (Survey 2).

Vignette Factor	Model 3.1[1] *OR* (95 % CI)[2]	Model 3.2[1] *OR* (95 % CI)[2]
(Intercept)	3.91*** [1.93, 7.91]	4.88*** [2.34, 10.2]
Unit		
Patrol unit armed with pistol	–	–
Patrol unit armed with pistol and rifle	1.05 [0.94, 1.18]	1.05 [0.94, 1.18]
Backup		
Less than 2 min	–	–
2-5 min	1.06 [0.92, 1.22]	1.06 [0.92, 1.22]
More than 5 min	0.77*** [0.67, 0.88]	0.77*** [0.67, 0.88]
Decision		
Establish a perimeter, wait for a SWAT team	–	–
Wait for additional officers	0.82** [0.72, 0.94]	0.87 [0.61, 1.22]
Enter the building/location without waiting	1.38*** [1.20, 1.59]	0.68* [0.48, 0.96]
Gunfire		
No gunfire	–	–
Continuous, rapid gunfire	0.76*** [0.68, 0.85]	0.73** [0.60, 0.89]
Scene		
Appears normal	–	–
People running from building/location	0.84* [0.73, 0.97]	0.79 [0.62, 1.00]
Wounded/bleeding people running from building/location	0.81** [0.71, 0.93]	0.78 [0.61, 1.00]
Location		
Grocery store (max occupancy 500 people)	–	–
Holiday parade	1.05 [0.91, 1.21]	0.93 [0.73, 1.18]
K-12 school	0.80** [0.70, 0.92]	0.57*** [0.45, 0.72]
Decision * Gunfire		
*Wait for additional officers * Continuous, rapid gunfire*		0.87 [0.66, 1.14]
*Enter the building/location without waiting * Continuous, rapid gunfire*		1.32 [1.00, 1.75]
Decision * Scene		
*Wait for additional officers * People running from building/location*		1.04 [0.74, 1.45]
*Enter the building/location without waiting * People running from building/location*		1.16 [0.82, 1.63]
*Wait for additional officers * Wounded/bleeding people running from building/location*		0.87 [0.62, 1.23]
*Enter the building/location without waiting * Wounded/bleeding people running from building/location*		1.27 [0.89, 1.79]
Decision * Location		
*Wait for additional officers * Holiday parade*		0.98 [0.70, 1.38]
*Enter the building/location without waiting * Holiday parade*		1.51* [1.07, 2.13]
*Wait for additional officers * K-12 school*		1.19 [0.85, 1.67]
*Enter the building/location without waiting * K-12 school*		2.45*** [1.74, 3.44]
AIC	8725	8703
BIC	8928	8976
No. Obs.	8214	8214

Abbreviations: CI = Confidence Interval, OR = Odds Ratio.
[1] All models adjust for age, sex, race, hispanicity, education, and region.
[2] *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

forces" in their judgments, citizens are more sensitive to symbolic locations and the broader meaning attached to LEO inaction.

These insights underscore the importance of agencies being aware of public perspectives when communicating about training and policy. Even if response protocols must remain grounded in tactical realities, failing to recognize the public's symbolic expectations risk fueling misunderstanding and eroding trust after high-profile incidents.

Like all studies, this project has limitations. First, although althoughour study design allowed us to experimentallyexperimentally vary situational factors, thethe approach still falls short of a full longitudinal experimental design as it does not afford the ability to conduct pre−/post-testing of the relationship of interest. Additionally, an experimental vignette design using hypothetical scenarios cannot fully capture the stress, uncertainty, and sensory overload of an actual active shooter event. SecondSecond, while the sample was drawn from a large national panel, it may not perfectly represent the U.S. population, and differences in demographics or lived experiences could shape perceptions in ways not fully captured here. Future research should extend this line of inquiry by incorporating more diverse sampling strategies, examining how public perceptions evolve after high-profile incidents, and comparing U.S. citizens' views with those in other countries that have experienced active shooter events. Experimental studies using immersive simulations may also provide additional insight into how citizens evaluate LEO actions under conditions that more closely mirror real-world dynamics. Lastly, the use of a continuous slider scale for the dependent variable, while intended to capture response granularity, may have introduced cognitive burden for respondents and potentially affected response distributions (Matejka et al., 2016). Additionally, the dichotomization of these continuous outcome measures resulted in a loss of statistical information and power, which represents a methodological trade-off that warrants consideration when interpreting the findings. As such, we have provided ordered logistic regressions in the supplemental section of this manuscript.

5.1. Policy implications

The present findings underscore the need for law enforcement agencies to better communicate the rationale behind active shooter response protocols to the public. Citizens appear to evaluate officer actions based on the symbolic significance or certain locations rather than the tactical realities that shape response decisions. By understanding these perceptual gaps, agencies can tailor public education campaigns and post-incident messaging to explain why certain response strategies may be necessary under specific conditions (e.g., waiting for backup in the absence of a driving force or actionable intelligence). Incorporating public perception research into training and communication strategies can help reduce misunderstandings and strengthen legitimacy following high-profile events. Ultimately, bridging the divide between public expectations and operational realities is critical for sustaining effective response practices and community trust.

6. Conclusion

This study provides the first systematic examination of citizen perceptions of law enforcement response to active shooter events and offers an essential complement to prior research focused on law enforcement perspectives (Martaindale et al., 2025; Phillips, 2020). By experimentally manipulating situational variables and randomly assigning scenarios to respondents, the design allows for stronger inferences about how citizens evaluate LEO decisions than descriptive surveys or post-incident commentary alone. The results reveal a clear divergence between professional and public evaluations. LEOs tend to anchor their judgments to the presence of situational "driving forces," such as ongoing gunfire or visible casualties, while citizens place greater emphasis on the symbolic significance of particular locations, especially schools and open venues such as parades. These differences underscore that public legitimacy in the aftermath of active shooter events cannot be fully understood through the lens of officer decision-making alone. For policymakers and trainers, the findings highlight the importance of balancing tactical realities with the normative expectations of the communities law enforcement is sworn to protect. Bridging this divide is

critical for ensuring both effective operational responses and the maintenance of public trust in the wake of these highly consequential events.

CRediT authorship contribution statement

M. Hunter Martaindale: Writing – review & editing, Writing – original draft, Project administration, Methodology, Data curation, Conceptualization. **Peter T. Tanksley:** Writing – review & editing, Writing – original draft, Visualization, Formal analysis.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work, the authors used ChatGPT5 to copyedit the manuscript for clarity. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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Declaration of competing interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this manuscript.

Appendix A. Survey 1 vignette including all factors

On a Saturday at 3:00 pm a police dispatcher broadcasts across the radio that there is a shooting in progress at [*a convenience store (*max *occupancy 20 people) / a grocery store (max occupancy 500 people) / a large mall (max occupancy 5000)*]. About three minutes later [*patrol unit armed with a pistol / a patrol unit armed with a pistol and rifle*] arrives on scene. As the first unit arrives on scene, radio traffic indicates that additional backup units are [*less than 2 min / 2 to 5 min / more than 5 min*] from arriving on scene. The scene [*appears normal with nobody in distress / is somewhat chaotic, with several people running from the main door of the building / is somewhat chaotic, with several wounded and bleeding people running from the main door of the building*]. [*Continuous, rapid gunfire / no gunfire*] is heard coming from the building. The decision is made [*to wait for additional officers before entering the building / to establish a perimeter and wait for a SWAT team to enter the building / to immediately enter the building*].

Appendix B. Survey 2 vignette including all factors

On a Saturday at 3:00 pm a police dispatcher broadcasts across the radio that there is a shooting in progress at [*an outdoor parade / a grocery store (max occupancy 500 people) / a K-12 school*]. About three minutes later [*patrol unit armed with a pistol / a patrol unit armed with a pistol and rifle*] arrives on scene. As the first unit arrives on scene, radio traffic indicates that additional backup units are [*less than 2 min / 2 to 5 min / more than 5 min*] from arriving on scene. The scene [*appears normal with nobody in distress / is somewhat chaotic, with several people running from the main door of the building / is somewhat chaotic, with several wounded and bleeding people running from the main door of the building*]. [*Continuous, rapid gunfire / no gunfire*] is heard coming from the building. The decision is made [*to wait for additional officers before entering the building / to establish a perimeter and wait for a SWAT team to enter the building / to immediately enter the building*].

Appendix C. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jcrimjus.2025.102578.

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