

Louisiana Law Enforcement Accountability Database (LLEAD)

**Report: ShotSpotter (SoundThinking technology) Alert Efficiency: New Orleans Police Department June 2025 – February 2026**

April 2026

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## Summary

This report analyzes approximately nine months of ShotSpotter gunshot detection data from the New Orleans Police Department’s pilot program in the Fifth District. From June 2025 through February 2026, the system generated 1,399 alerts, corresponding to 1,010 unique incidents.

Roughly one in four unique incidents (24.3%) produced a police report, while the majority were cleared without documented evidence of confirmed gunfire. Of the 1,010 unique incidents, only 14 (1.4%) led officers to a scene that endangered human life—including six aggravated batteries by shooting and three fatal shootings. Four of those 14 incidents had no corresponding civilian 911 call, meaning ShotSpotter was the only signal that alerted police to the scene. For the remaining ten incidents, civilians called either prior to or in minutes after the ShotSpotter alert.

At the same time, the system detected only a small fraction of the gunfire events that civilians reported through 911. Of 575 civilian gunfire calls in the Fifth District during the pilot period, ShotSpotter generated a matching alert for just 48 (8.3%). Among the 151 civilian gunfire calls serious enough to produce a police report, the system detected only 11 (7.3%).

The data also shows that ShotSpotter alerts did not meaningfully improve police response times in comparison with 911 civilian gunfire calls for service. Responding to these alerts required substantial officer resources. Officers spent an estimated 932 hours responding to ShotSpotter alerts during this period, with more than half of that time devoted to calls that did not find evidence of gunfire—placing additional demands on a department already operating below its stated staffing needs.

Overall, these findings suggest that while ShotSpotter may increase awareness of potential gunfire, its limited rate of confirmed outcomes and significant resource demands raise questions about the technology’s efficiency.

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## Table of Contents

1. Executive Summary
2. Key Findings – Alert Volumes & Outcomes
  1. How ShotSpotter Alerts are Classified
  2. What Happened When Officers Responded

3. Life-Threatening Incidents
4. Monthly Trends
3. Key Findings – Response Times
  1. ShotSpotter Response Times by Outcome
  2. How ShotSpotter Compares to 911 Gunfire Calls
4. Key Findings – Overlap Between ShotSpotter and Civilian Calls
  1. Did Civilians Also Report ShotSpotter Events?
  2. Did ShotSpotter Detect Civilian-Reported Gunfire?
5. Key Findings – Resource Cost
  1. Estimated Officer-Hours by Month
6. Key Findings – When and Where Alerts Occurred
  1. Time of Day
  2. Geographic Distribution
7. Conclusion: What the Data Suggests
8. Methodology
9. References

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## 1. Executive Summary

In June 2025, the New Orleans Police Department (NOPD) launched a six-month pilot program for ShotSpotter, an acoustic gunshot detection system manufactured by SoundThinking, Inc. The pilot area covered approximately five square miles in the Fifth District, including the neighborhoods of Bywater, St. Claude, Holy Cross, St. Roch, and the Upper and Lower Ninth Ward. The system uses a network of sensors to detect the sound of gunfire and alert officers through the city’s Real Time Crime Center, allowing police to respond to potential shootings without waiting for a 911 call.<sup>1</sup>

The pilot was offered at no cost to the city and was described as “aimed at determining the efficacy of the new ShotSpotter technology.” NOPD did not state how it might fund the system past the pilot period. Former City Council member Oliver Thomas, whose district falls in the coverage area, advocated for the technology.<sup>2</sup> The six-month pilot was scheduled to conclude around mid-December 2025. However, ShotSpotter alerts continued to appear in NOPD’s Calls for Service data through the end of February 2026, more than two months past the planned end date. On March 30, 2026, NOPD publicly stated that it did not recommend and would not continue the ShotSpotter pilot program.<sup>3</sup>

This is not the city’s first experience with the technology. NOPD piloted ShotSpotter more than 15 years ago in the Central Business District, but the program never advanced beyond the initial phase. Former NOPD Superintendent Michael Harrison said that the department passed on the system during his tenure due to

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<sup>1</sup> SoundThinking, Inc. “ShotSpotter Public Safety Results.” <https://www.soundthinking.com/shotspotter-public-safety-results/>.

<sup>2</sup> Carlie Kollath Wells. “New Orleans Brings Back Controversial Gunshot Technology.” Axios New Orleans, June 17, 2025. <https://www.axios.com/local/new-orleans/2025/06/17/shot-spotter-soundthinking-gunfire-detection-technology>

<sup>3</sup> New Orleans City Council, Criminal Justice Committee video. <https://www.youtube.com/watch?v=tNxWqW-l0jQ>

manpower shortages and concerns about the technology's earlier generation.<sup>4</sup> Staffing remains a concern: at the time of the pilot launch, NOPD had approximately 900 officers, compared to the stated goal of 1,200, and a median response time of around 21 minutes.<sup>5 6</sup>

The technology has faced growing scrutiny in other cities. A 2021 study by the MacArthur Justice Center found that 89% of ShotSpotter deployments in Chicago led officers to find no gun-related crime, and the Chicago Office of Inspector General concluded that the system “rarely leads to evidence of gun-related crime.”<sup>7</sup> Instead, the ShotSpotter system repeatedly sent police into majority Black and Latino communities in Chicago when there was no evidence of gunfire or any gun related crime.<sup>8</sup> A 2024 audit by the New York City Comptroller found that only 13% of ShotSpotter alerts resulted in confirmed shootings, with officers spending thousands of hours responding to alerts that produced nothing.<sup>9</sup> The Comptroller declined to approve the NYPD's contract renewal. Chicago ended its ShotSpotter contract in 2024.

This report uses NOPD Calls for Service data flagged as ShotSpotter alerts (Type 94S) from June 18, 2025, through February 28, 2026.<sup>10</sup> It examines how often alerts led to documented police outcomes, how quickly officers responded in comparison to 911 civilian reported gunfire calls for service, when and where alerts occurred, and how much officer time the system consumed. The data does not include arrest records, evidence recovery logs, or confirmed shooting reports, so this analysis relies on the disposition codes assigned by responding officers.

Across this period, the data indicates that only about one in four ShotSpotter incidents (24.3%) resulted in documented evidence of gunfire, and even in those cases, alerts often did not identify a victim or property damage. The system did, however, lead officers to 14 life-threatening scenes including nine confirmed shootings and three homicides. These 14 incidents represent 1.4% of all unique incidents during the pilot. Four of them had no civilian 911 call at all, meaning ShotSpotter was the sole reason police were alerted. These cases represent the system's clearest public safety contribution.

At the same time, the system's acoustic sensors detected only a small share of the gunfire events that civilians reported through traditional 911 channels. Of 575 civilian gunfire calls in the Fifth District during the pilot period, ShotSpotter generated a matching alert for just 48—a detection rate of 8.3%. Among the 151 civilian

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<sup>4</sup> Missy Wilkinson, “New Orleans police are testing a new gunshot detection system. Will it work?” *NOLA.com/The Times-Picayune*, June 20, 2025. [https://www.nola.com/news/new-orleans-police/article\\_2fa47769-b0ca-4da6-bd41-61a1f105e2f5.html](https://www.nola.com/news/new-orleans-police/article_2fa47769-b0ca-4da6-bd41-61a1f105e2f5.html)

<sup>5</sup> Ibid.

<sup>6</sup> John Simerman, “‘Forgot How to Fish:’ Why NOPD is Struggling to Attract New Officers.” *NOLA.com/The Times-Picayune*, June 22, 2025. [https://www.nola.com/news/forgot-how-to-fish-why-nopd-is-struggling-to-attract-new-officers/article\\_caa31b81-9670-46a0-b895-8e388ffb021c.html](https://www.nola.com/news/forgot-how-to-fish-why-nopd-is-struggling-to-attract-new-officers/article_caa31b81-9670-46a0-b895-8e388ffb021c.html)

<sup>7</sup> MacArthur Justice Center. “ShotSpotter Generated Over 40,000 Dead-End Police Deployments in Chicago in 21 Months, According to New Study.” <https://www.macarthurjustice.org/shotspotter-generated-over-40000-dead-end-police-deployments-in-chicago-in-21-months-according-to-new-study/>.

<sup>8</sup> Ibid.

<sup>9</sup> Office of the New York City Comptroller. “NYPD's ShotSpotter Gunshot-Detection System Overwhelmingly Sends Officers to Locations Where No Confirmed Shooting Occurred, New Audit Uncovers.” June 20, 2024. <https://comptroller.nyc.gov/newsroom/nypds-shotspotter-gunshot-detection-system-overwhelmingly-sends-officers-to-locations-where-no-confirmed-shooting-occurred-new-audit-uncovers/>.

<sup>10</sup> NOPD Calls for Service Open Data. City of New Orleans. [https://data.nola.gov/Public-Safety-and-Preparedness/Calls-for-Service-2026/es9j-6y5d/about\\_data](https://data.nola.gov/Public-Safety-and-Preparedness/Calls-for-Service-2026/es9j-6y5d/about_data) Downloaded March 23, 2026.

calls that were serious enough to produce a formal police report, the system detected only 11 (7.3%). This means that 140 reportable gunfire events occurred in the ShotSpotter coverage area without triggering an alert.

The system did not meaningfully improve police response times in comparison with 911 gunfire calls. Simultaneously, officers spent an estimated 932 hours responding to ShotSpotter alerts, with more than half of that time devoted to incidents that did not result in a report, placing additional demands on a department already operating below its staff capacity goals.

Taken together, these findings suggest that while ShotSpotter may increase awareness of potential gunfire, its limited rate of confirmed outcomes, low detection of civilian-reported gunfire, and substantial resource demands raise questions about its overall efficacy.

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## 2. Key Findings – Alert Volume & Outcome

### 2.1 How ShotSpotter Alerts are Classified

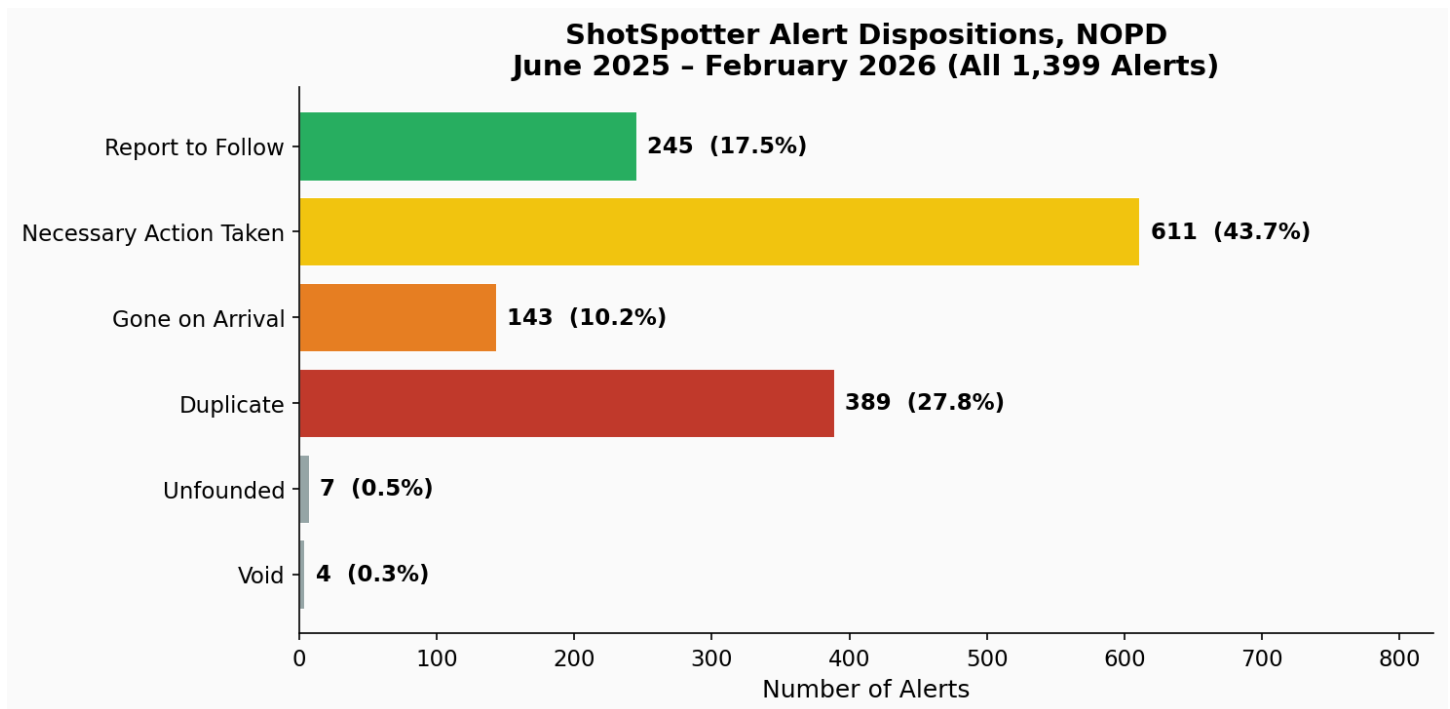
When a ShotSpotter sensor detects a potential gunshot, it generates an alert that is routed to NOPD's dispatch system as a calls-for-service record. Officers respond, and each call is closed with one of the following dispositions:

- **Report to Follow (RTF):** Officers found evidence warranting a formal police report. This is the strongest indicator that an alert corresponded to the discharge of a firearm. IJLA reviewed a random sample of 15 incident reports initiated by ShotSpotter alerts: 12 documented evidence of gunfire with no damage to property or civilians, 1 involved the identification of a gunshot victim, 1 identified damage to property, and 1 incident was misclassified.
- **Necessary Action Taken (NAT):** Officers responded and took some form of action but did not find evidence of gunfire. In practice, this category is opaque. It may include canvassing the area, attempting to locate witnesses, but it can also reflect that officers arrived and found no evidence or activity and quickly departed.
- **Gone on Arrival (GOA):** Officers arrived but did not locate a complainant or relevant activity. This is likewise an ambiguous category. In traditional calls for service, this disposition indicates that a 911 caller was no longer present. However, because ShotSpotter alerts are generated by acoustic sensor technology rather than civilian callers, this disposition is ambiguous in this context and provides little insight into what officers actually did. NOPD's records division did not provide clarity to these scenarios over the phone.
- **Duplicate (DUP):** The alert was a duplicate of another alert for the same incident, typically because multiple sensors detected the same gunfire event. Alerts were presumably marked as duplicates by a dispatcher.
- **Unfounded/Void:** The alert was determined to be unfounded or was voided. These dispositions accounted for less than 1% of all alerts.

## 2.2 What Happened When Officers Responded

From June 2025 through February 2026, NOPD’s ShotSpotter system generated 1,399 total alerts. Of these, 389 (27.8%) were dispatcher-noted duplicates. After removing duplicates, there were 1,010 unique incidents that required an officer response.

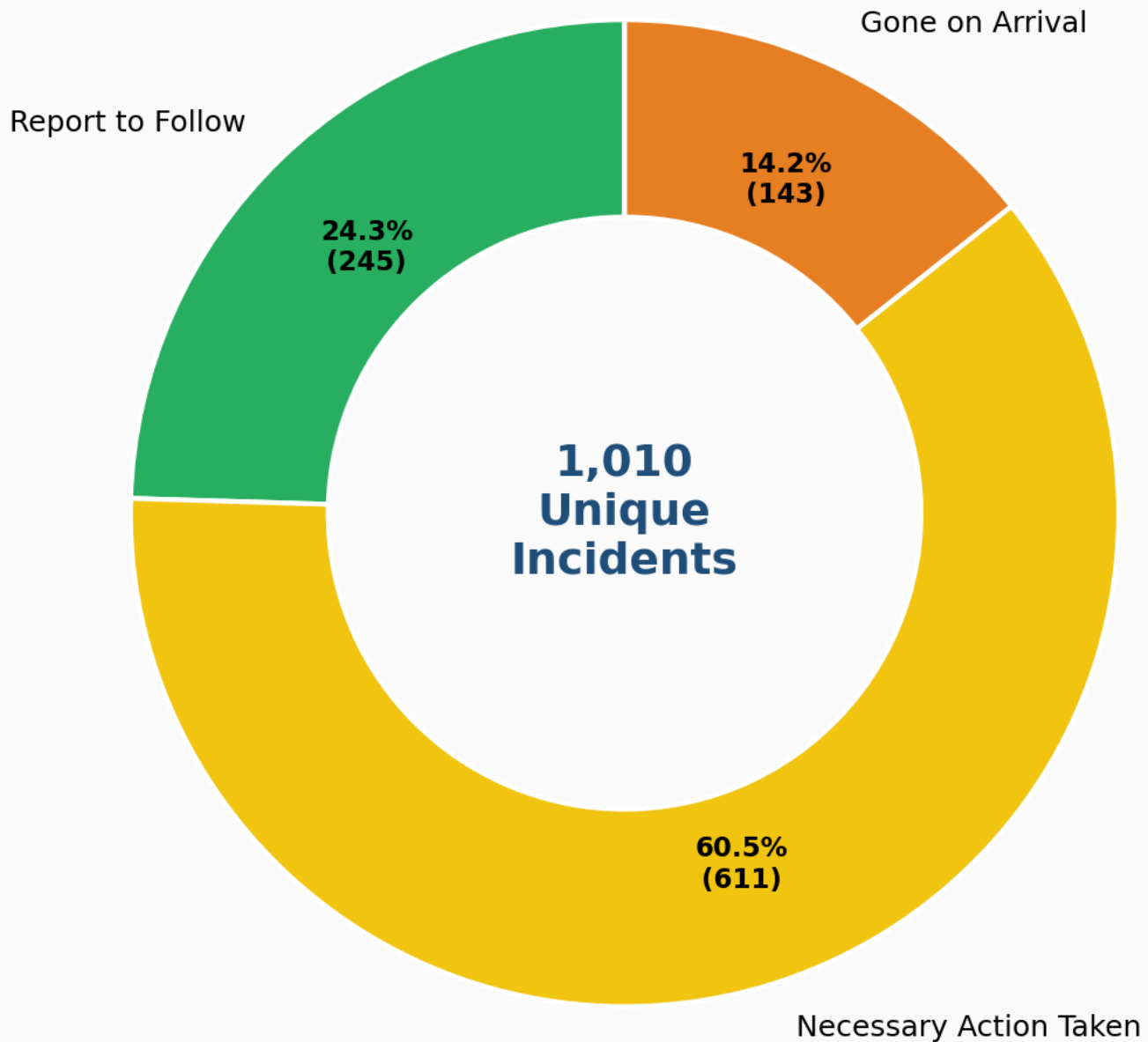
This chart shows the breakdown of all 1,399 ShotSpotter alerts by their final disposition. The largest single category is “Necessary Action Taken,” which accounted for over 40% of all alerts. About one in four alerts were classified as duplicates (27.8%).



Of the 1,010 unique incidents, only 245 (24.3%) resulted in a “Report to Follow” disposition, meaning that officers found enough evidence to file a formal police report. The remaining 75.7% of unique incidents were cleared without a report. The largest share, 611 incidents (60.5%), were classified as “Necessary Action Taken,” and 143 (14.2%) were “Gone on Arrival,” meaning that officers found no one and no evidence at the scene.

This chart shows the outcomes for unique incidents only, excluding the 389 duplicate alerts. The center number reflects the total unique incidents that required a police response.

**Outcomes of Unique ShotSpotter Incidents, NOPD  
June 2025 - February 2026 (Excluding Duplicates)**



*Note: 11 additional incidents were Unfounded or Void (<1% combined).*

The “Necessary Action Taken” and “Gone on Arrival” categories deserve scrutiny. These disposition codes tell us that officers responded and did something, but it does not specify what that something was. It could mean that officers secured a scene, canvassed an area, spoke with witnesses, or simply drove through the location and left. Without more detailed definitions from NOPD, it is impossible to know if any of these 754 incidents involved meaningful police activity versus routine drive-throughs that found nothing.

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## 2.3 Life-Threatening Incidents

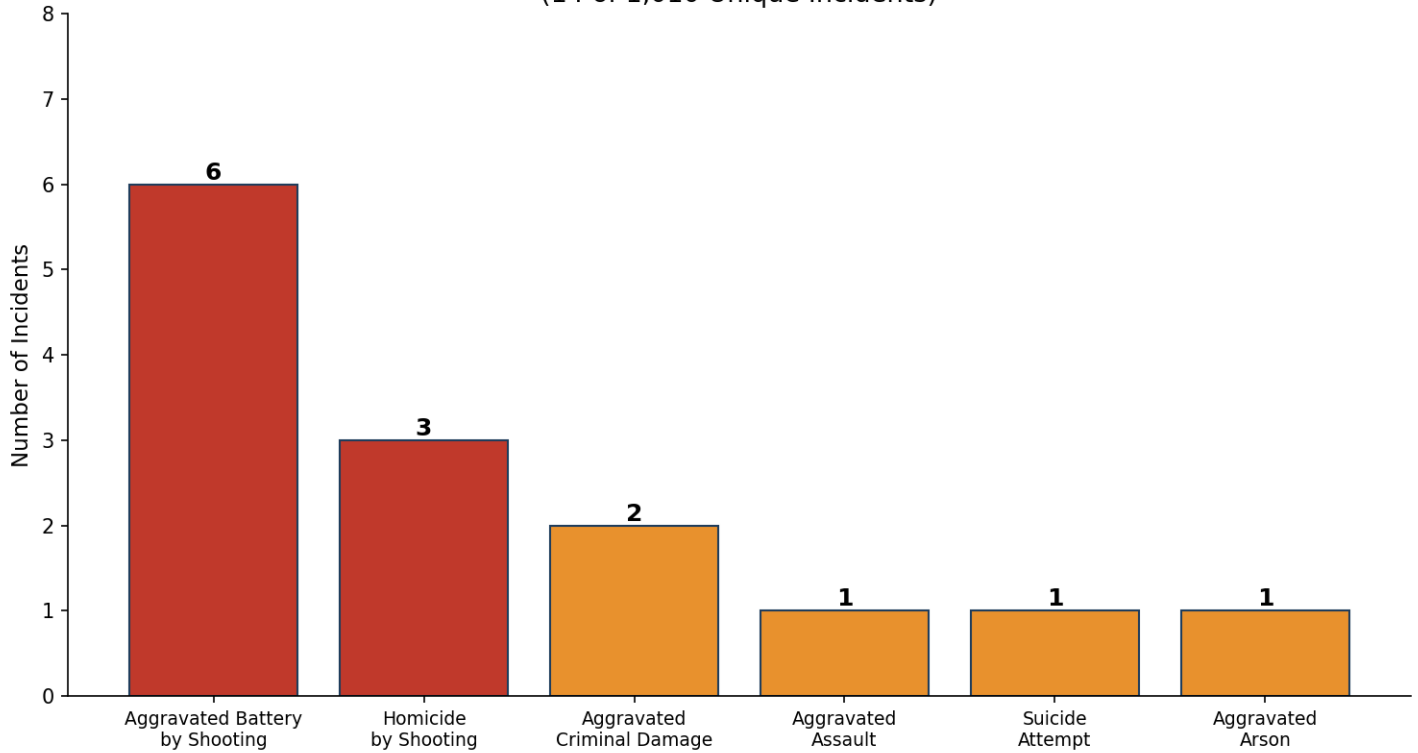
While the disposition codes provide a broad picture of what officers found, they do not tell us how many ShotSpotter alerts led officers to scenes involving immediate danger to human life. To answer this question, we examined a random sample of the “Report to Follow” incident reports and analyzed whether any ShotSpotter alerts were reclassified after officers arrived; for example, whether the responding officer changed the call type from “ShotSpotter – Reported Gunshots” to a different crime category based on what they found at the scene.

Of the 1,399 total alerts, 218 (15.6%) were reclassified to a different call type after officers responded. The majority of these (183 alerts) were reclassified to “Discharging Firearm,” the standard code for confirmed gunfire. This reclassification indicates that officers found evidence consistent with gunshots but did not identify a victim or a more serious crime. The remaining 35 alerts were reclassified to a range of other call types, including fireworks, criminal damage, and violent crimes.

Among these reclassified alerts, we identified 14 incidents where the final call type indicated a crime that endangered human life. These included:

- Six incidents reclassified as Aggravated Battery by Shooting, indicating that officers found a gunshot victim who survived
- Three incidents reclassified as Homicide by Shooting, indicating a fatal shooting
- Two incidents reclassified as Aggravated Criminal Damage, involving gunfire that damaged property and endangered people nearby
- One Aggravated Assault
- One Suicide Attempt involving a firearm
- One Aggravated Arson

Life-Threatening ShotSpotter Incidents by Final Call Type  
NOPD Fifth District, June 2025 -- February 2026  
(14 of 1,010 Unique Incidents)



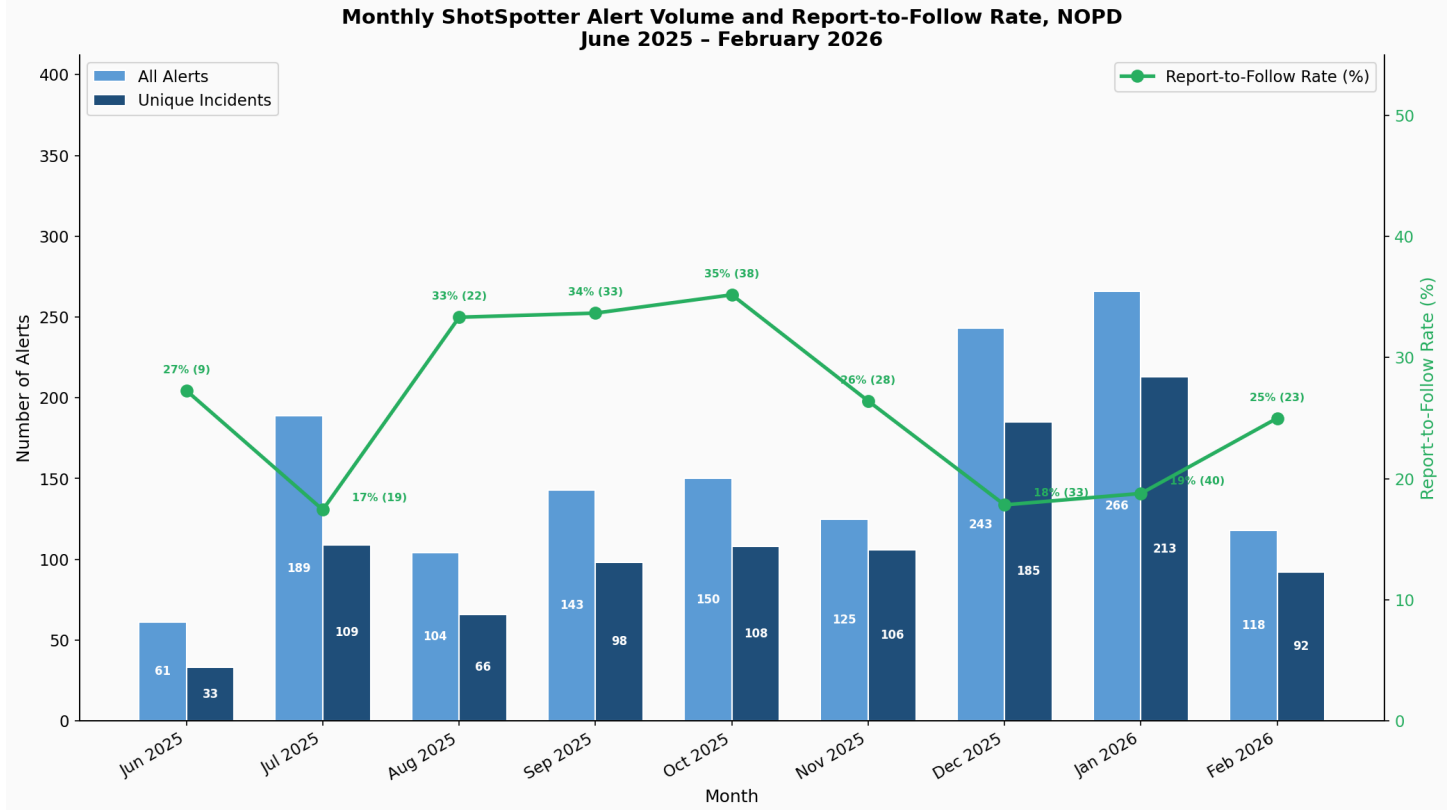
All 14 of these incidents received a “Report to Follow” disposition, meaning officers generated a formal police report. They account for about 6% of all RTF incidents. The remaining 231 RTF incidents (94%) were reclassified to less severe categories or retained the original ShotSpotter code, suggesting that while officers found enough to file a report, the scene did not involve a shooting victim or an immediate threat to life.

## 2.4 Monthly Trend

Alert volume increased substantially over the nine-month period. June 2025 was a partial month (the pilot launched June 18), producing only 33 unique incidents. In January 2026, the system recorded 213 unique incidents, the highest monthly total.

The “Report to Follow” (RTF) rate fluctuated between 17% and 35% across months. The highest rates occurred in October 2025 (35.2%) and September 2025 (33.7%), while the lowest rates occurred in July 2025 (17.4%) and December 2025 (17.8%). January 2026, which had the highest alert volume, also had one of the lower RTF rates (18.8%). The spikes in December and January volume may partly reflect New Year’s Eve fireworks, which ShotSpotter sensors can mistake for gunshots.

This chart shows the total number of alerts and unique incidents by month (bars, left axis), along with the Report-to-Follow rate (green line, right axis). The RTF rate represents the share of unique incidents in which officers generated a formal report.



### 3. Key Findings – Response Times

#### 3.1 ShotSpotter Response Times by Outcome

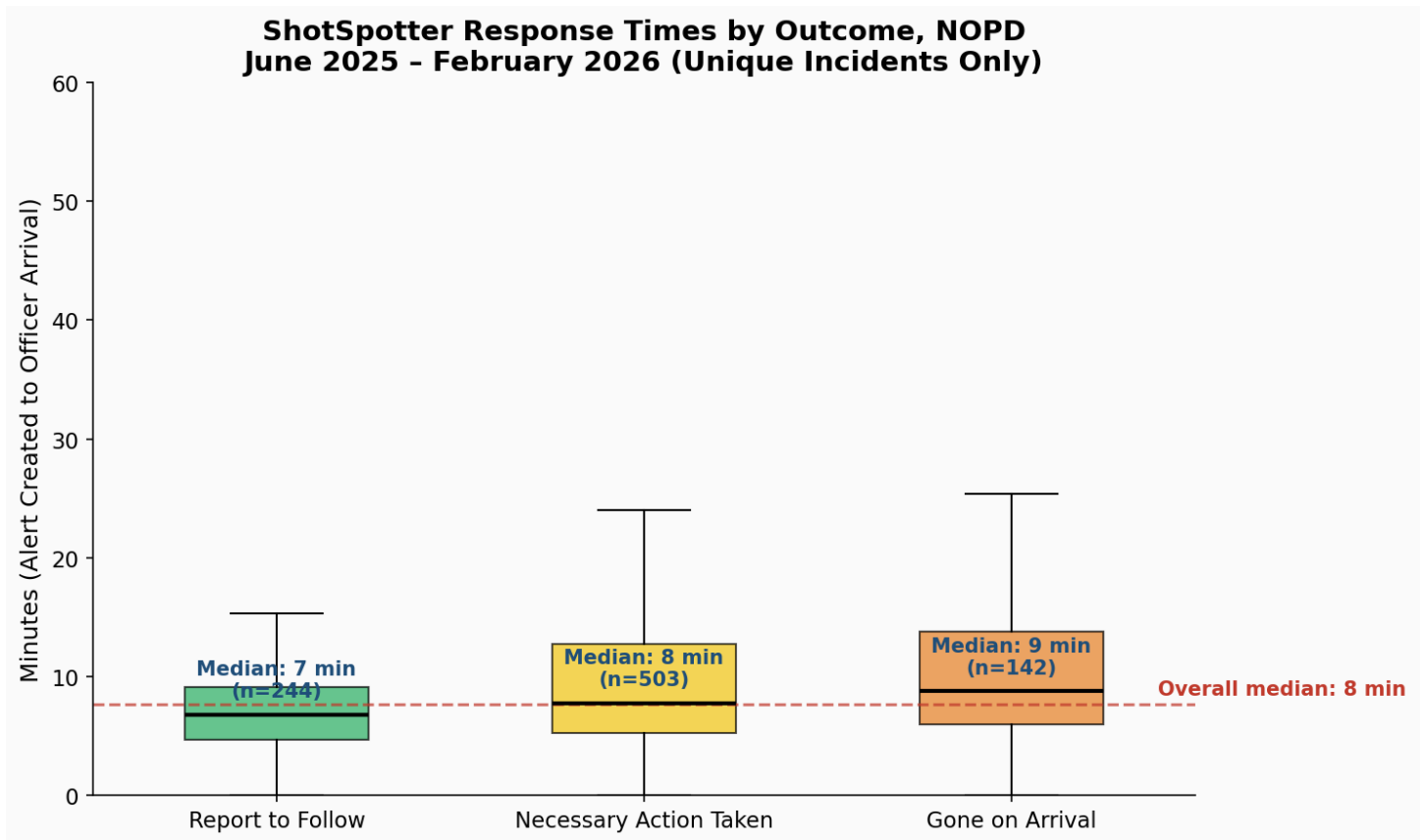
Response time is measured as the interval between when an alert was created in NOPD’s dispatch system and when an officer arrived at the scene. This calculation was possible for 889 of the 1,010 unique incidents occurring in any police district (88%). The remaining 121 incidents had no recorded arrival time, either because no officer was dispatched or because the arrival time was not logged.

Across all unique ShotSpotter incidents with available data, the median response time was 8 minutes and the mean was 13 minutes. Response times varied by outcome:

- **Report to Follow:** Median of 7 minutes. These incidents had the fastest response, consistent with the possibility that officers were dispatched more quickly to alerts that were later confirmed as actual shootings.

- **Necessary Action Taken:** Median of 8 minutes.
- **Gone on Arrival:** Median of 9 minutes.

This chart shows the distribution of response times for each outcome category. The boxes represent the middle 50% of response times (25th to 75th percentile), the black line inside each box marks the median, and the red dashed line shows the overall median across all incidents.



These response times reflect the interval from alert creation to officer arrival, not from the actual moment that the ShotSpotter technology detected an acoustic trigger, as the ShotSpotter system itself takes about 30 to 45 seconds to process and transmit the alert.

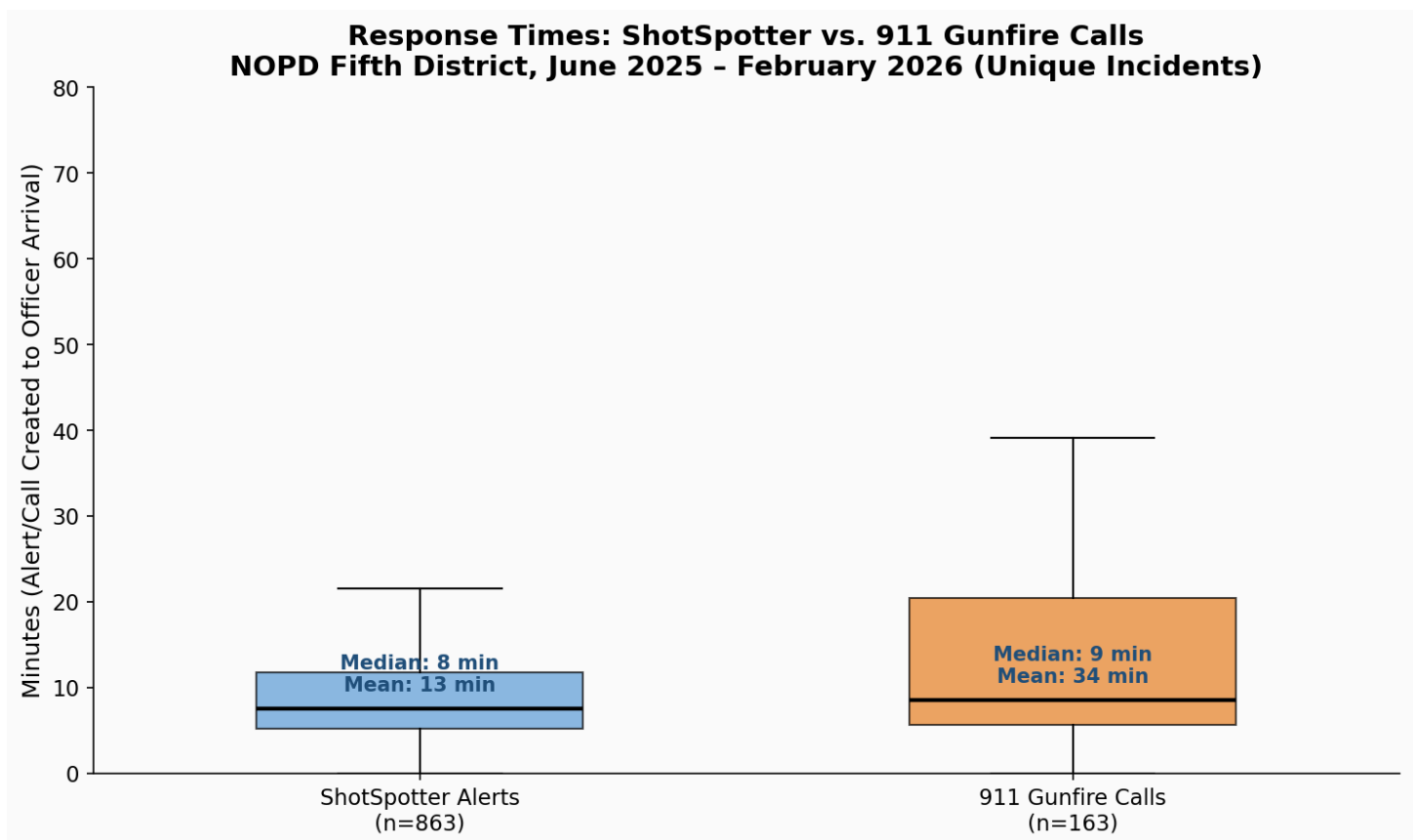
### 3.2 How ShotSpotter Compares to 911 Gunfire Calls

One of the central claims made by ShotSpotter is that it gets officers to shooting scenes faster than waiting for a 911 call. To test this contention, we compared ShotSpotter alerts to 911-reported gunfire calls (calls that entered the dispatch system as Type 94, “Discharging Firearm”) in the same area and time period. This comparison covers the full pilot period (June 2025 through February 2026) in the Fifth District only, ensuring that both groups reflect the same geography and policing conditions.

During the pilot period, there were 975 unique ShotSpotter incidents and 177 citizen-reported gunfire calls in the Fifth District. Of these, 863 ShotSpotter incidents and 163 gunfire calls had valid response time data (a recorded officer arrival time within 24 hours).

The median response time for ShotSpotter alerts was about 8 minutes, compared to about 9 minutes for 911 gunfire calls. The difference at the median is roughly one minute. However, the mean response times diverged more sharply: 13 minutes for ShotSpotter versus 34 minutes for 911 calls. This gap is driven by fourteen 911 calls with response times of over 2 hours. At the 75th percentile, ShotSpotter calls were answered within 12 minutes, while 911 gunfire calls took up to 22 minutes.

This chart compares the distribution of response times for ShotSpotter alerts, and 911 gunfire calls in the Fifth District across the full pilot period (June 2025 through February 2026). The boxes show the middle 50% of response times, and the black line marks the median. While median response times are close, 911 calls have a much wider spread, with some calls taking considerably longer to reach an officer.



The dispatch data offers a possible explanation for this pattern. ShotSpotter alerts were dispatched in a median of about 1 minute after the alert was created, compared to about 2 minutes for 911 calls. ShotSpotter gets calls into the dispatch queue faster, but the on-the-ground arrival time advantage is modest at the median (about one minute).

The disposition patterns also differed markedly between the two call types. ShotSpotter and 911 calls produced nearly identical “Report-to-Follow” rates (24.9% versus 24.3%), suggesting that both pathways are equally likely to lead to a documented police report. However, 911 calls were far more likely to result in “Gone on Arrival” (52% versus 12% for ShotSpotter), while ShotSpotter calls were far more likely to be classified as “Necessary Action Taken” (62% versus 22%). This pattern is consistent with ShotSpotter getting officers to the scene faster, before subjects leave, though it could also reflect differences in the types of incidents each system captures.

It is worth noting that the two call types differ in important ways beyond the alert mechanism. 911 callers may provide additional context (number of shots, description of a suspect, whether someone is injured) that affects how the call is prioritized and routed. ShotSpotter alerts arrive with a location and a round count, but no witness information. The 911 group is also substantially smaller (163 calls with response data versus 863 for ShotSpotter), so outlier calls with long response times have more influence on the averages. These differences mean that the comparison should be interpreted as an approximate benchmark rather than a controlled experiment.

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## 4. Key Findings – Overlap Between ShotSpotter and Civilian Calls

One of the central questions about ShotSpotter is whether the system detects gunfire that would otherwise go unreported, or whether it largely duplicates information that civilians are already providing through 911 calls. To investigate this, we examined the overlap between ShotSpotter alerts and civilian-reported gunfire calls in two directions: first, whether ShotSpotter alerts had a corresponding civilian call, and second, whether civilian gunfire calls had a corresponding ShotSpotter alert.

For this analysis, a “match” is defined as a civilian call and a ShotSpotter alert that occurred within 10 minutes and 250 meters of each other. This window accounts for the time it takes a caller to reach 911 and for minor differences in location reporting between the acoustic sensors and civilian callers. We also tested tighter and wider thresholds and found that the results were not sensitive to these choices—widening the window to 15 minutes and 400 meters changed match rates by only one to two percentage points.

Civilian gunfire calls were defined as non-officer-initiated calls for service (“Self Initiated” = “N”) with an initial call type of “Discharging Firearm,” “Aggravated Battery by Shooting,” or “Homicide by Shooting.” These are the call types where we are most confident that real gunfire occurred.

### 4.1 Did Civilians Also Report ShotSpotter Events?

Of the 1,010 unique ShotSpotter incidents, only 75 (7.4%) had a matching civilian gunfire call within the 10-minute, 250-meter window. When the civilian pool was restricted to “Discharging Firearm” calls only—the most direct equivalent of a civilian reporting gunshots—the match rate dropped to 57 incidents (5.6%).

This means that more than 92% of ShotSpotter alerts did not have a corresponding civilian 911 call reporting gunfire in the same area around the same time. This finding is consistent with ShotSpotter’s stated purpose: the

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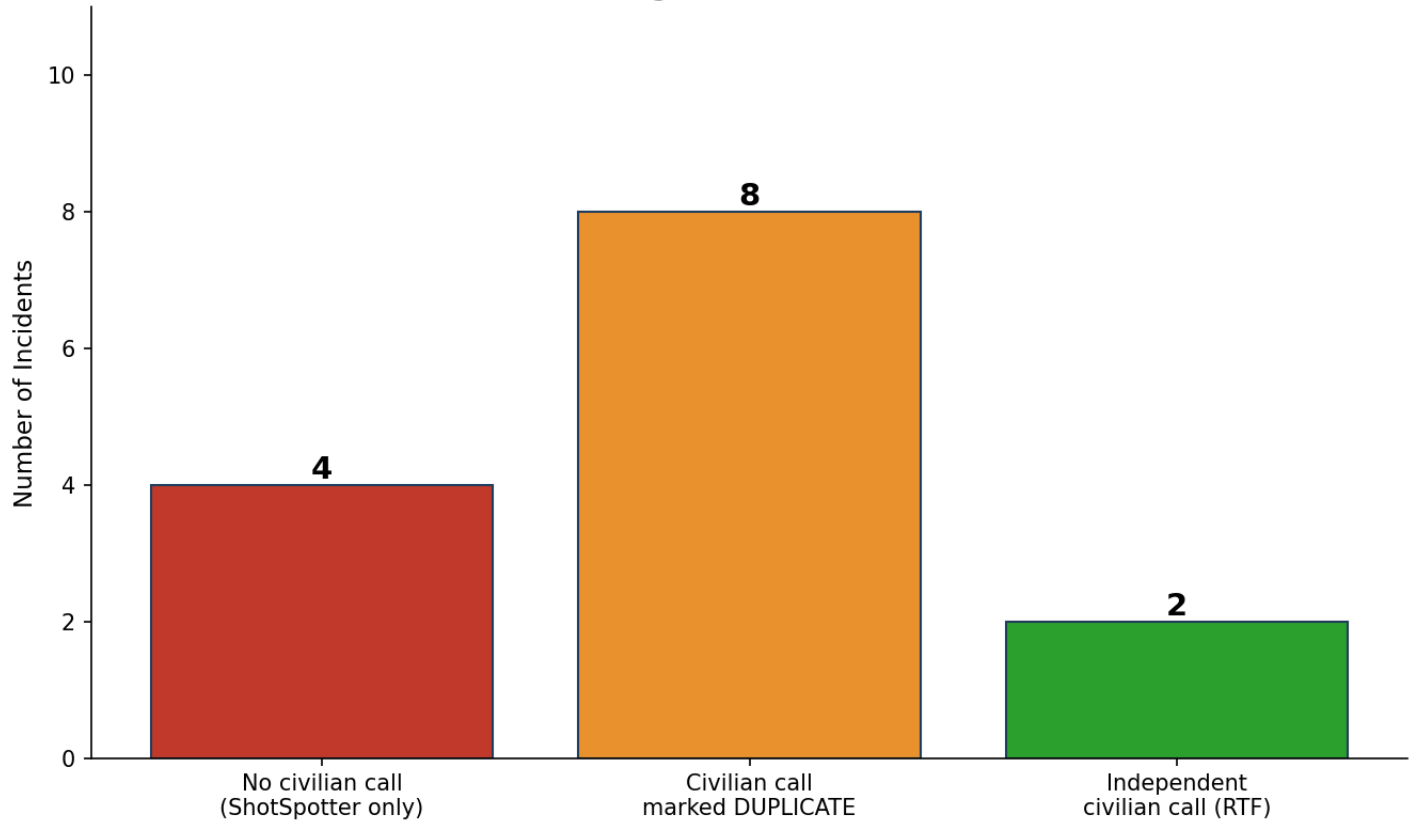
system is designed to detect gunfire events that civilians do not report. However, it also means that there is very little independent confirmation from civilians that the events detected by ShotSpotter actually involved gunfire, particularly for the 60% of incidents that were cleared as “Necessary Action Taken” without a formal report.

When we narrowed the analysis to the 245 “Report to Follow” incidents—the alerts most likely to correspond to actual gunfire—the match rate was only slightly higher. Twelve RTF incidents (4.9%) had a matching civilian gunfire call, and 19 (7.8%) matched any civilian call of any type. Even among the most serious ShotSpotter detections, the vast majority did not generate a corresponding 911 call.

The 14 life-threatening incidents tell a more nuanced story. Nine of the 14 (64%) had at least one matching civilian call within the primary window, and 10 (71%) matched within a wider 30-minute, 600-meter window. Of the 10 matched civilian calls, eight were marked as “Duplicate” by dispatchers, meaning that a civilian called 911 and their call was absorbed into the existing ShotSpotter-initiated record rather than generating a separate police response. In most of these cases, the ShotSpotter alert entered the dispatch system first and the civilian call arrived minutes later.

Four of the 14 life-threatening incidents, including three aggravated batteries by shooting and one homicide by shooting, had no civilian call at all, even within a generous 30-minute, 600-meter search window. In these cases, ShotSpotter was the only signal that alerted police to a shooting scene. These four incidents represent the clearest examples of the system’s potential value: without the acoustic alert, officers may not have responded to these locations at all or may have responded significantly later.

Life-Threatening ShotSpotter Incidents:  
Did a Civilian Also Call 911?  
(14 incidents, matching window: 10 minutes / 250 meters)



## 4.2 Did ShotSpotter Detect Civilian-Reported Gunfire?

The reverse question is equally important: when civilians called 911 to report gunfire in the ShotSpotter coverage area, did the system also detect those events?

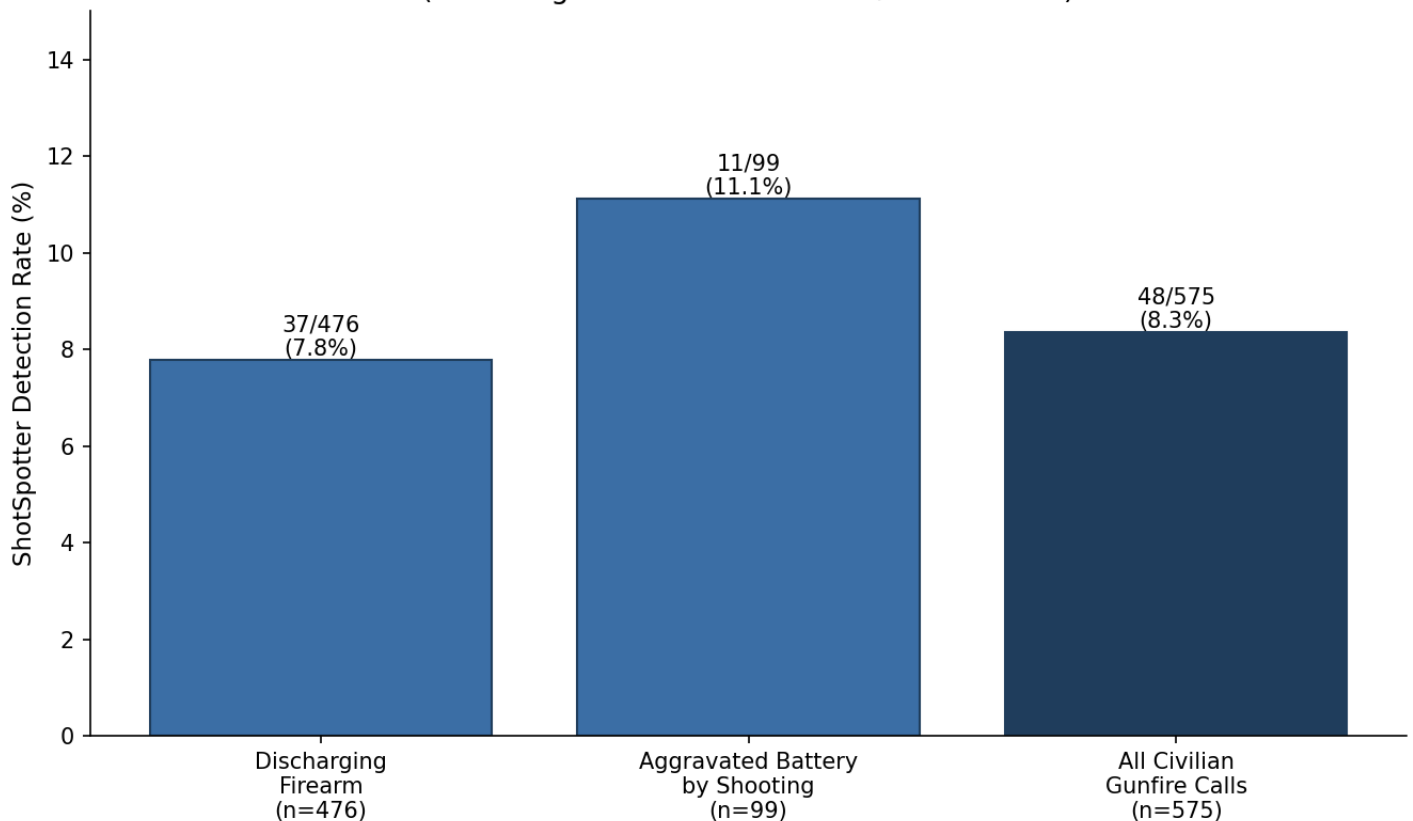
During the pilot period, there were 575 civilian-reported gunfire calls in the Fifth District, where ShotSpotter sensors are deployed. Of these, 476 were “Discharging Firearm” calls and 99 were “Aggravated Battery by Shooting” calls—both call types where we are confident that the caller was reporting a gunfire event.

ShotSpotter generated a matching alert for only 48 of these 575 calls, a detection rate of 8.3%. In other words, for every civilian gunfire call that ShotSpotter also detected, there were roughly 11 that the system missed entirely.

The detection rate varied by call type and outcome:

- **Aggravated Battery by Shooting:** ShotSpotter detected 11 of 99 calls (11.1%). These are incidents where a victim was shot, meaning multiple rounds were likely fired and the acoustic signature should have been strong.
- **Discharging Firearm:** ShotSpotter detected 37 of 476 calls (7.8%). These are general gunfire reports that may involve fewer rounds.

ShotSpotter Detection Rate by Civilian Call Type  
NOPD Fifth District, June 2025 -- February 2026  
(matching window: 10 minutes / 250 meters)

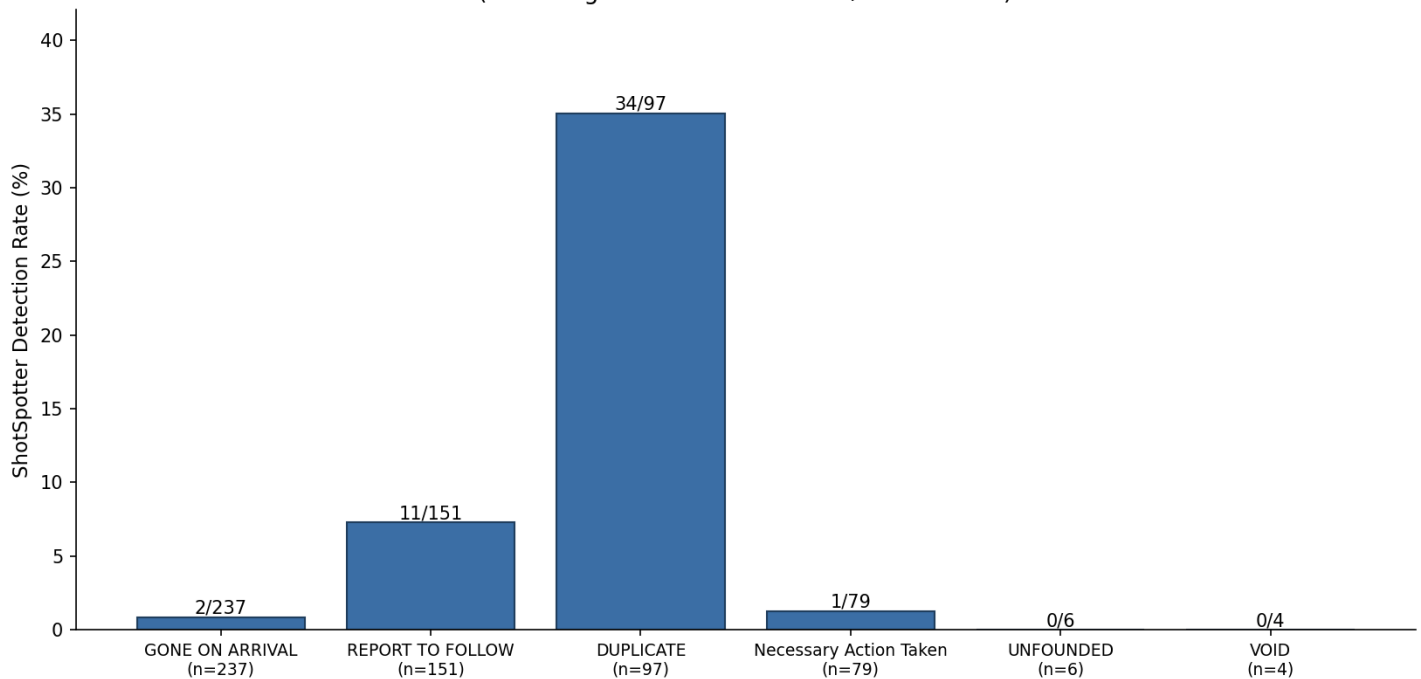


The detection rate also varied by the disposition of the civilian call:

- **Report to Follow:** Of the 151 civilian gunfire calls in District 5 that were serious enough for officers to file a formal report, ShotSpotter detected only 11 (7.3%). This means that 140 reportable gunfire events occurred in the ShotSpotter coverage area without triggering an alert from the system.
- **Gone on Arrival:** ShotSpotter detected only 2 of 237 GOA calls (0.8%). These are cases where civilians reported gunfire but officers found nothing upon arrival -- the low detection rate may reflect that some of these calls did not involve actual gunfire, or that the gunfire was too brief or distant for ShotSpotter sensors to detect.
- **Duplicate:** ShotSpotter detected 34 of 97 duplicate calls (35.1%). The higher rate here is expected, as these civilian calls were already consolidated into an existing dispatch record, which in many cases was the ShotSpotter alert itself.

These findings suggest that ShotSpotter’s acoustic sensors detect a relatively small share of the gunfire events that civilians are reporting through traditional 911 channels. The system’s five-square-mile sensor coverage may not extend to all locations where gunfire occurs within the Fifth District, or the sensors may not consistently detect certain types of gunfire events, such as single shots or gunfire that occurs indoors or in acoustically shielded locations.

ShotSpotter Detection Rate for Civilian Gunfire Calls  
by Call Disposition -- NOPD Fifth District  
(matching window: 10 minutes / 250 meters)



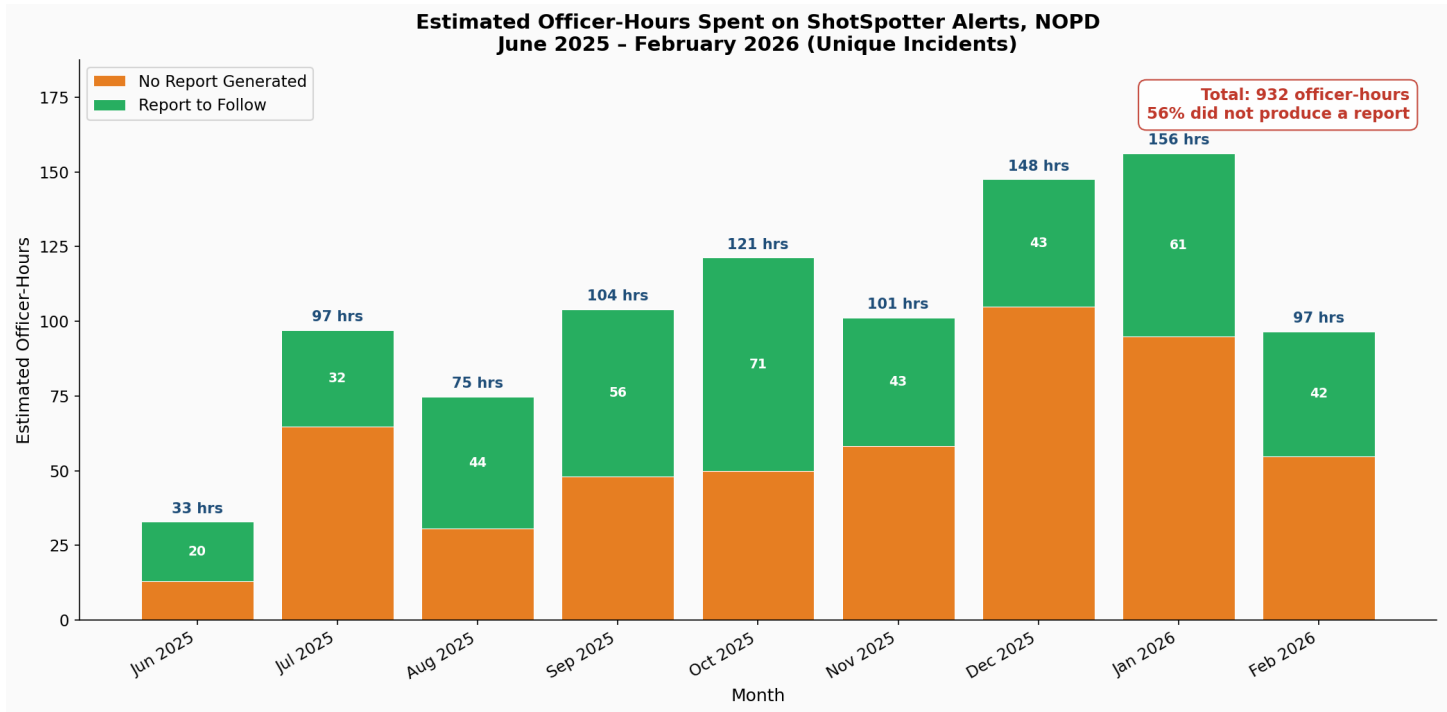
## 5. Key Findings – Resource Cost

### 5.1 Estimated Officer-Hours by Month

Each ShotSpotter alert that is not a duplicate requires an officer response, which occupies patrol time regardless of whether the alert turns out to involve confirmed gunfire. To estimate the total officer-hours consumed by ShotSpotter responses, this analysis uses the time between alert creation and call closure for each unique incident.

Over the nine-month period, NOPD officers spent an estimated 932 hours responding to ShotSpotter alerts. Of those hours, 413 (44%) were spent on incidents that resulted in a “Report to Follow.” The remaining 519 hours (56%) were spent on calls that did not produce a formal report.

This chart shows the estimated officer-hours by month, split between incidents that generated a report (green) and those that did not (orange). The total hours for each month are labeled above the bars.



These estimates have important limitations. The calculation uses the time from alert creation to call closure, which includes time before an officer was dispatched and potentially time spent on administrative tasks after leaving the scene. It also assumes a single officer per call. In practice, multiple officers may respond to a potential shooting. As a result, these figures should be understood as a *minimum* estimate of single-officer time per call, not a comprehensive measure of total resources deployed.

The 932-hour total is equivalent to roughly 23 full 40-hour work weeks. In a department that routinely reports staffing shortages, the question of whether this time investment produces sufficient investigative value is central to evaluating the pilot’s effectiveness.

## 6. Key Findings – When and Where Alerts Occurred

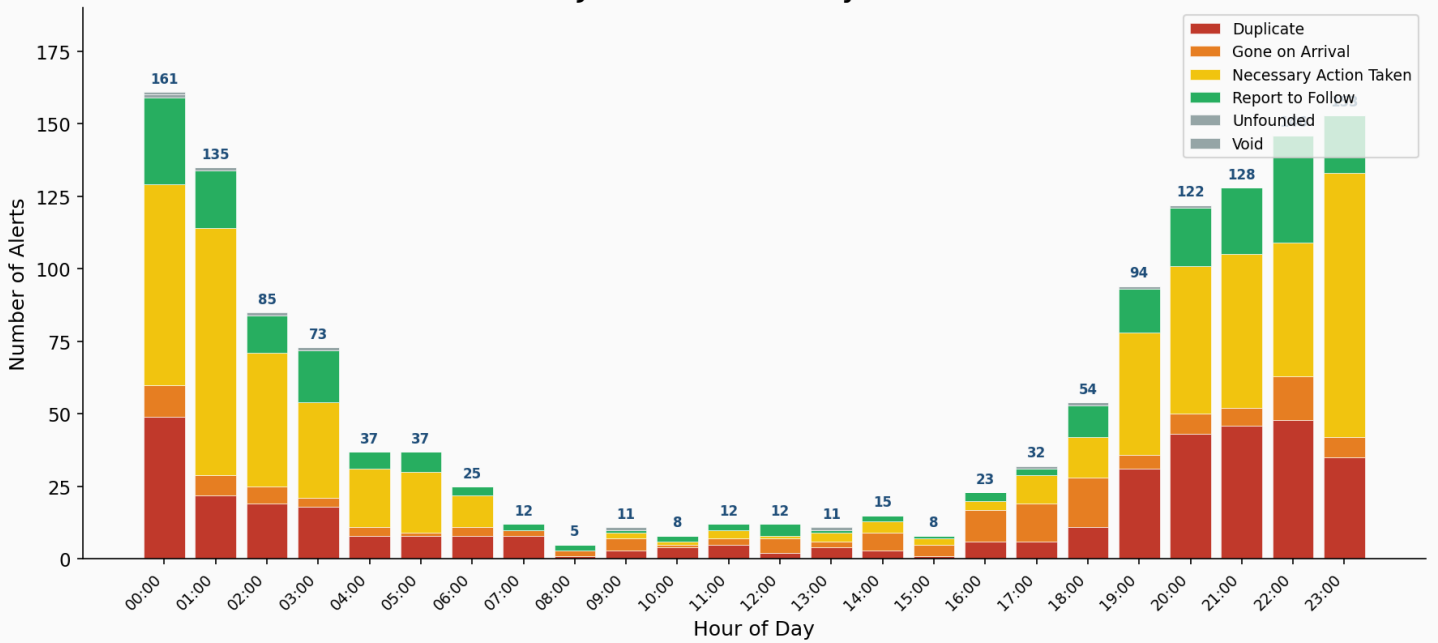
### 6.1 Time of Day

ShotSpotter alerts follow a strong nighttime pattern. The peak hours for alerts are between 8:00 PM and 2:00 AM, with the single busiest hour being 12:00 AM (161 alerts). Activity drops sharply after 2:00 AM and remains low throughout the daytime, with the quietest period between 7:00 AM and 3:00 PM.

This pattern is consistent with national research on policing, which shows peak call volume in late evening and overnight hours. It also means that ShotSpotter alerts are concentrated during the same hours when NOPD is already managing high call volumes for other types of crime.

This chart shows the number of ShotSpotter alerts by hour of day, with colors indicating the disposition of each alert. The chart includes all 1,399 alerts (including duplicates) to show the full volume of system activity.

**ShotSpotter Alerts by Hour of Day, NOPD  
June 2025 - February 2026**



## 6.2 Geographic Distribution

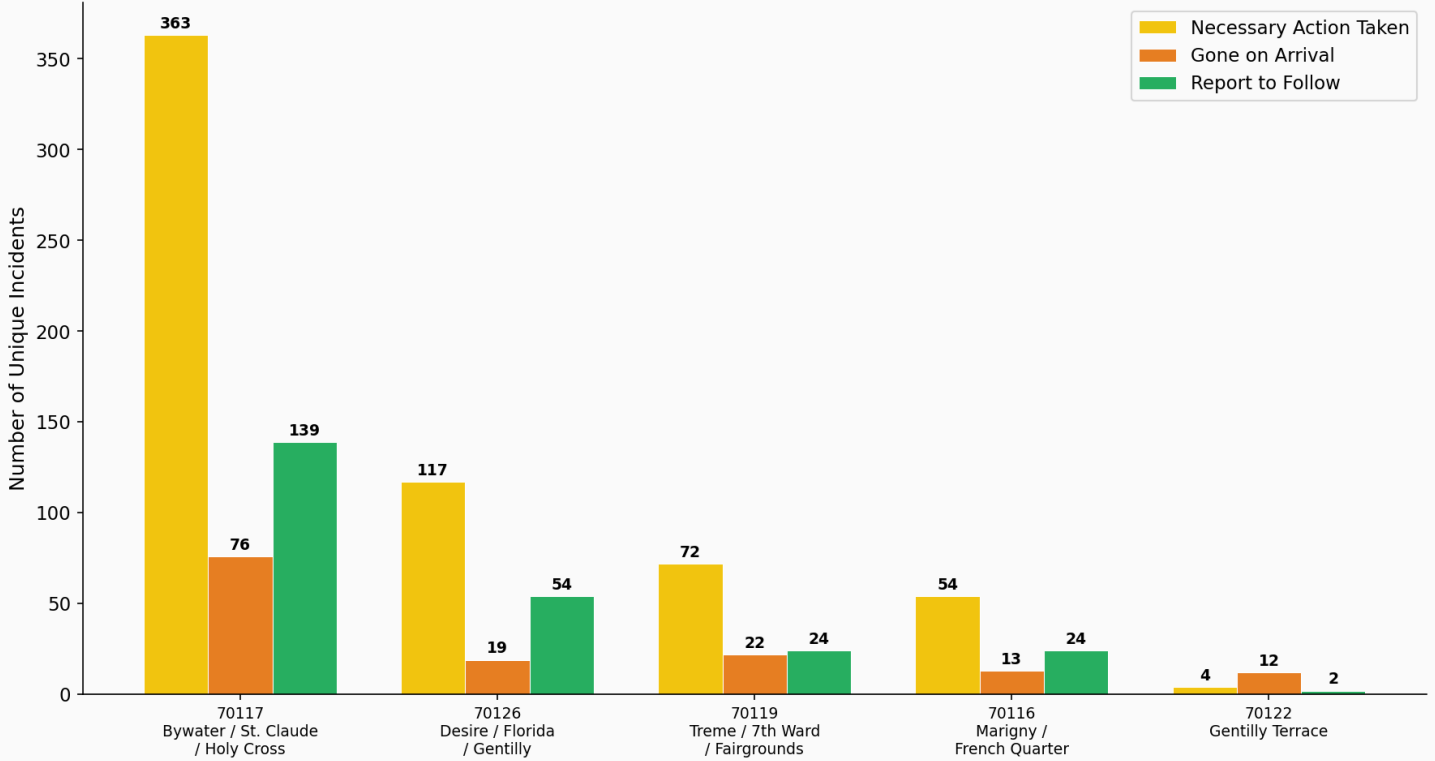
Nearly all ShotSpotter alerts (97%) originated in the Fifth District, which is expected given that the pilot’s sensors are deployed there. Within the Fifth District, alerts were concentrated in a small number of zip codes.

The 70117 zip code (Bywater, St. Claude, and Holy Cross) accounted for 578 of the 1,010 unique incidents (58%). The 70126 zip code (Desire, Florida, and parts of Gentilly) accounted for 190 incidents (19%), followed by 70119 (Treme, 7th Ward, and Fairgrounds) with 118 incidents (12%) and 70116 (Marigny and French Quarter) with 91 incidents (9%).

The “Report to Follow” rate was relatively consistent across the busiest zip codes, ranging from 20% in 70119 to 28% in 70126. The one exception was 70122 (Gentilly Terrace), which had only 18 incidents but a notably high “Gone on Arrival” rate (67%), suggesting that alerts in this area were less likely to correspond to activity that officers could investigate.

This chart shows the number of unique incidents by zip code, broken down by outcome. Ten incidents with the disposition listed as “Unfounded” or “Void” were excluded from the breakdown, as well as two incidents in zip code 70114 and one incident in 70113, and two incidents with no zip code data.

**ShotSpotter Outcomes by Zip Code, NOPD  
June 2025 - February 2026 (Unique Incidents)**



Note: 5 unique incidents had no zip code recorded and are not shown.

## 7. Conclusion: What the Data Suggests

Nine months of ShotSpotter data from NOPD’s Fifth District pilot reveals a system that generates a high volume of alerts but produces documented investigative outcomes in a minority of cases. Of 1,010 unique incidents, roughly one in four (24.3%) resulted in a formal police report. The remaining three-quarters were cleared without a report, most commonly as “Necessary Action Taken,” a vague category that provides no record of what officers found or did in response to the alert.

Officers spent an estimated 932 hours responding to these alerts, with 56% of that time going to incidents that did not produce a report. Response times were generally fast, with a median of 8 minutes from alert creation to officer arrival. Compared to 911 gunfire calls in the same district, ShotSpotter’s median response time advantage was about one minute, though ShotSpotter showed a clearer advantage in reducing very slow responses. Both pathways produced nearly identical “Report-to-Follow” rates (about 25%).

The life-threatening incident analysis provides the most concrete measure of the system’s public safety value. Of the 1,010 unique incidents, 14 (1.4%) led officers to a scene involving immediate danger to human life, including six aggravated batteries by shooting and three fatal shootings. Four of these 14 incidents had no corresponding civilian 911 call, meaning that ShotSpotter was the only signal that alerted police to the scene. For these four cases, the system may have been the difference between a rapid police response and a significantly delayed one. At the same time, the remaining 10 life-threatening incidents did have a civilian caller, though in most cases ShotSpotter was the first signal into the dispatch system.

However, the call-match analysis also reveals a significant limitation. When civilians called 911 to report gunfire in the ShotSpotter coverage area, the system detected only 8.3% of those events. Of the 151 civilian gunfire calls that were serious enough to produce a formal report, ShotSpotter missed 140—a detection rate of just 7.3%. This suggests that the system’s sensors are capturing only a small fraction of the gunfire events occurring in its coverage zone. Whether this reflects the physical limits of acoustic detection, gaps in sensor coverage within the five-square-mile area, or some other factor cannot be determined from the Calls for Service data alone.

There are several things that this data cannot tell us. The “Necessary Action Taken” category, which accounts for the majority of unique incidents, could include responses where officers found real evidence of gunfire but did not file a report. It could also include responses where nothing was found.

What the data does show clearly is the resource cost. Every alert requires an officer response and the majority of those responses do not produce a documented outcome. Moreover, all ShotSpotter activity was concentrated in the Fifth District. These communities absorbed the burden of frequent non-productive police responses without proportional documented public safety returns.

Overall, the data available suggests that NOPD’s ShotSpotter pilot is producing outcome patterns similar to those documented in other cities: a large volume of alerts, a small fraction leading to documented evidence or reports, and substantial officer time invested with limited measurable return. The system did lead officers to 14 life-threatening scenes, four of which had no civilian caller—a genuine contribution that should not be dismissed. But for every one of those incidents, officers responded to roughly 71 other alerts that did not involve danger to a person.

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## 8. Methodology

**1. Data source.** NOPD Calls for Service records downloaded from the City of New Orleans open data portal on March 23, 2026. Two files were used: Calls for Service 2025 (all call types, full year) and Calls for Service 2026 (all call types, January through February). ShotSpotter alerts were identified by Initial Type = “94S” (ShotSpotter -- Reported Gunshots). For the response time comparison in Section 3.2, citizen-reported gunfire calls were identified by Initial Type = “94” (Discharging Firearm) in District 5 during the same pilot period.

This analysis uses Initial Type rather than the final Type field to capture all calls that originated as ShotSpotter alerts, including 217 calls (15.5%) that were later reclassified to other call types (most commonly Type 94,

“Discharging Firearm”). Using Initial Type ensures the analysis reflects the full volume of ShotSpotter system activity.

**2. Date range.** June 18, 2025 through February 28, 2026 (approximately 8.5 months).

**3. Total records.** 1,399 alert records.

**4. Deduplication.** When ShotSpotter detects a gunfire event, multiple sensors may register the same sound, and each sensor hit enters NOPD’s dispatch system as a separate calls-for-service record with its own NOPD\_Item identifier. NOPD dispatchers then mark the extra records as “DUP” (Duplicate) and close them without dispatching an officer. These duplicate entries are an artifact of the NOPD dispatch system, not the ShotSpotter technology itself. DUP records were excluded from all unique-incident counts, response time calculations, and disposition analyses, but are included in total alert counts to show the full volume of system activity. No duplicate NOPD\_Item values existed across the two input files.

**5. Response time calculation.** Response time was calculated as the difference between the “Time Create” field (when the alert was generated) and the “Time Arrive” field (when the first officer arrived on scene). Records with missing “Time Arrive” values, negative response times, or response times exceeding 24 hours were excluded as data errors. Of the 1,010 unique incidents, 889 had valid response time data.

**6. Officer-hours estimate.** Total time per incident was estimated using the difference between “Time Create” and “Time Closed” fields. This is a rough proxy, as it represents the elapsed time the call was open in the dispatch system rather than actual officer time on scene. Records with durations exceeding 24 hours or negative values were excluded.

**7. Neighborhood assignment.** Neighborhood names were taken from the “Neighborhood Id” field in the Calls for Service data. A large proportion (69.6% of unique incidents) had no neighborhood recorded. This is a significant limitation of the neighborhood-level analysis.

**8. Disposition categories.** The following disposition codes appear in the data:

- **RTF (Report to Follow):** Officers found something warranting a formal written report.
- **NAT (Necessary Action Taken):** A catch-all disposition indicating officers responded and took unspecified action.
- **GOA (Gone on Arrival):** Officers arrived but found no one and no evidence at the scene.
- **DUP (Duplicate):** System-generated duplicate alert for a previously detected incident.
- **UNFOUNDED:** Investigation determined the alert was not based on a real incident.
- **VOID:** Alert was cancelled.

**11. Civilian gunfire call matching.** To assess overlap between ShotSpotter alerts and civilian-reported gunfire, we matched ShotSpotter alerts to non-officer-initiated calls for service with an initial call type of “Discharging Firearm” (Type 94), “Aggravated Battery by Shooting” (Type 34S), or “Homicide by Shooting” (Type 30S). A match was defined as a ShotSpotter alert and a civilian call occurring within 10 minutes and 250 meters of each other. Distance was calculated as the straight-line distance on Louisiana State Plane South coordinates

(EPSG:3452), which are recorded in the MapX and MapY fields of the Calls for Service data. One meter equals approximately 3.28 feet in this coordinate system.

We tested the sensitivity of match rates to threshold choices by also computing matches at 5 and 15 minutes and at 150, 250, and 400 meters. Match rates were not sensitive to these choices: widening the threshold from the primary window (10 minutes, 250 meters) to the widest window (15 minutes, 400 meters) increased match rates by only 1 to 2 percentage points in all analyses.

When matching in both directions (ShotSpotter-to-civilian and civilian-to-ShotSpotter), a match is binary per anchor record: if multiple calls in the opposite pool fall within the window, the anchor is counted as matched once. The closest match by distance is reported in the per-record output files.

**12. ShotSpotter coverage area proxy.** ShotSpotter sensor locations are not publicly available. To define the system's coverage area for the recall analysis (Section 4.2), we used the distribution of ShotSpotter alerts by police district as a proxy. Of the 1,399 total alerts, 1,356 (97%) originated in the Fifth District. Only 26 alerts originated in the Third District, and all other districts had fewer than 10 alerts each. We treated the Fifth District as the ShotSpotter coverage area for the recall analysis. Civilian gunfire calls outside the Fifth District were excluded from the recall calculation, as the absence of a ShotSpotter alert in those areas is not informative.

**13. Life-threatening incident identification.** ShotSpotter alerts that led to life-threatening scenes were identified by examining the final call type (the "Type" field) for all alerts whose initial type was "94S" (ShotSpotter – Reported Gunshots). When the final type differed from the initial type and corresponded to a crime involving danger to human life, the incident was flagged for review. The 14 incidents identified through this process were reclassified by responding officers to Aggravated Battery by Shooting (6), Homicide by Shooting (3), Aggravated Criminal Damage (2), Aggravated Assault (1), Suicide Attempt (1), and Aggravated Arson (1). All 14 had a "Report to Follow" disposition.

**14. Civilian call matching for life-threatening incidents.** For the 14 life-threatening incidents, we searched for matching civilian calls at both the primary threshold (10 minutes, 250 meters) and a wider threshold (30 minutes, 600 meters) to ensure that no nearby civilian calls were missed due to threshold effects. The wider search did not change the result for 13 of 14 incidents; one additional incident (Aggravated Arson, January 2026) had a match only at the wider threshold.

**15. Software.** Analysis and visualization were conducted using Python 3.13 with the matplotlib and NumPy libraries.

**16. Data Limitations.** This analysis relies on NOPD Calls for Service data, which has several important limitations.

- **Disposition codes are imprecise.** The "Necessary Action Taken" (NAT) and "Gone on Arrival" (GOA) categories are particularly opaque. NAT likely reflects a range of police activity -- from securing a scene and speaking with potential witnesses to simply driving through an area and finding nothing. GOA typically signifies that a 911 caller was no longer present; however, because ShotSpotter alerts are generated by acoustic sensor technology rather than civilian callers, this designation is ambiguous in this context. Without more detailed definitions from NOPD, it is impossible to know what officers actually

did or found in the majority of incidents. NOPD’s records division did not provide clarity on these categories when contacted.

- **ShotSpotter sensor coverage boundaries are not publicly available.** For the recall analysis (Section 4.2), we used the Fifth District as a proxy for ShotSpotter’s coverage area because 97% of alerts originated there. However, the actual sensor array covers approximately five square miles within the district, and not every location in the Fifth District may be within sensor range. Some civilian gunfire calls counted as “missed” by ShotSpotter may have occurred outside the sensor footprint. As a result, our recall estimate of 8.3% should be understood as an upper bound—the true detection rate within the sensor array may be somewhat higher.
- **Matching relies on time and space proximity.** The civilian-call matching analysis defines a “match” as two records occurring within 10 minutes and 250 meters of each other. This is a reasonable proxy for “same event,” but it is not perfect. Some true matches may fall outside the window due to delays in 911 call processing or imprecise location data. Conversely, two unrelated events that happen to occur near each other in time and space could be incorrectly counted as a match. We tested the sensitivity of results to threshold choices and found them stable across a range of windows, which increases confidence in the findings.
- **The data does not include arrest records, evidence recovery logs, or confirmed shooting reports.** This analysis is limited to what can be observed in the Calls for Service records. A more thorough evaluation that links ShotSpotter alerts to downstream outcomes—arrests, evidence recovered, cases cleared—would provide a more complete picture of the system’s investigative value. The CFS data tells us how officers classified the call at the scene, but not what ultimately came of it.

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