911RTA FY2025 REPORT

Center for Crime Science and Violence Prevention

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This project review was prepared by Dr. Dennis Mares, Director of the Center for Crime Science and Violence Prevention at Southern Illinois University Edwardsville in July-August 2025 with updates in October of 2025.

CCSVP's primary focus is to assist all stakeholders in the criminal justice field in their efforts to reduce crime and violence. The center works with criminal justice agencies, community organizations, vendors, faculty, and students to improve public safety in the St. Louis and Illinois regions. We provide a range of services, including grant development, data analytics, crime analysis, mapping, virtual reality training development, dashboard development, and (evaluation) research.

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Executive Summary

This has been an exciting year with growth and learning for the 911 Real Time Alert project. As this project started service in Illinois, both the vendor, SirenGPS and administrator/evaluator, the Center for Crime Science and Violence Prevention, collaborated on implementing and studying the results of the real time alert system across multiple school districts in Illinois.

Implementation of emerging technologies invariably poses challenges. This project has been no exception. Coordinating across multiple Public Safety Access Points (PSAPs), police departments and municipalities in a school district is complicated. Notwithstanding these challenges, the project vendor has made good strides in successfully implementing the service in three relatively large and diverse school districts across Illinois, each with unique public safety challenges.

Initial review of the service and the data produced by vendor SirenGPS, shows promising results. (1) The system functionally works well and appears to consistently trigger when serious incidents occur near schools, meaning the technology functions as designed. (2) Although feedback from customers remains a bit limited, the feedback we received has been overwhelmingly positive. (3) Results indicate 911RTA achieves a statistically significant time improvement in alerting school officials, speeding up awareness of incidents by about 5 ½ minutes.

Key achievements

- Implement service in 52 K-12 schools across the Collinsville, Edwardsville and Peoria School Districts.
- Accurately relayed 1,600 alerts between January and October, 2025.
- Improved options for School District clients to customize alerts.
- Positive feedback from customers
- Some use-cases that show efficacy in serious situations

Key challenges

- CAD/RMS vendors are sometimes slow to assist in data integration.
- Obtaining user feedback.

Outlook for FY2026

- Continue to engage potential clients and integrate additional districts
- Continue to find points of improvements in services and tailoring alerts notifications

Introduction: 911RTA System Design and Functionality

911RTA System

The 911RTA system is designed to capture individual Calls for Service (CAD) records (911 call logs) and in real-time identify and filter those by call type and proximity (geofence) to individual school buildings and generate an alert that is shared via email and text message with district wide stakeholders and/or school-specific stakeholders (see figure 1 below).

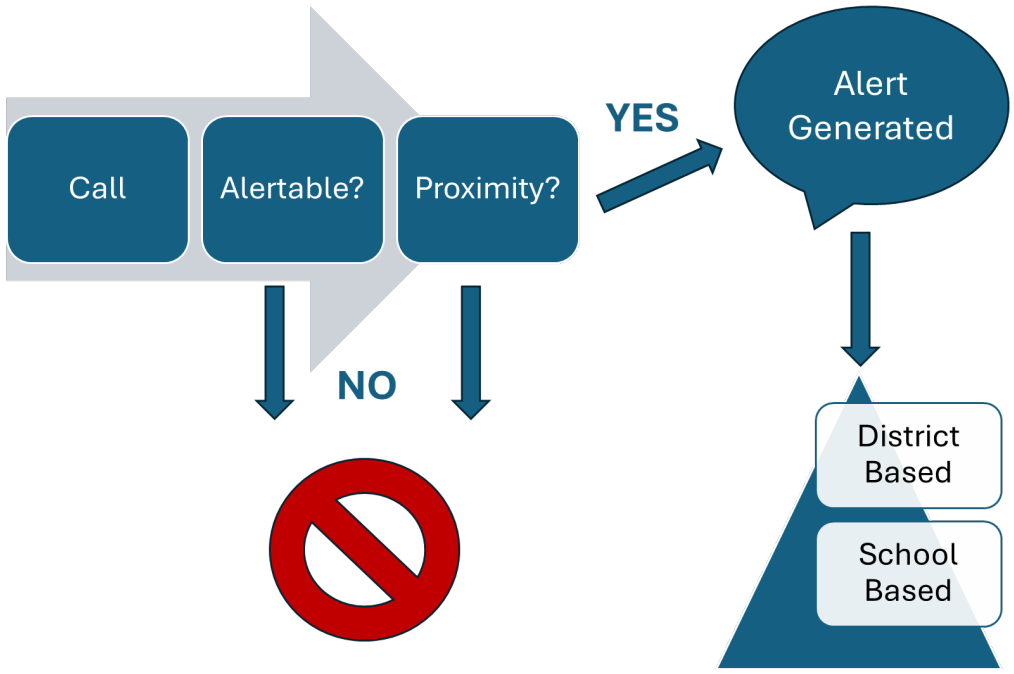

Figure 1. 911RTA workflow

For example, a community resident calls 911 because they just saw a person walking with a firearm. This call would likely be coded by the Public Safety Access Point (PSAP) as 'Active Armed Person'. SirenGPS' process recodes this case to a standardized 'ARMED SUSPECT' because call codes are not standardized across PSAPs and this standardized code allows the process to compare the call type to a list of 'alertable' codes. Alertable codes are determined in conjunction with clients (school districts), although in practice the list of call types is fairly similar across school districts and include call types that present an active safety threat (Shots fired, burglary in progress) or a potential safety hazard or obstruction (fire alarm, traffic accident). If a call is a match for the type of incidents that schools want to be notified of, the next step is to gauge the proximity to school properties. SirenGPS uses the physical parcel of a school property and matches this to the address information in the call for service. This address is plotted using

latitude and longitude (GPS coordinates) and the distance to school properties is then determined. If it falls on school properties or within certain distances (e.g., 125, 250 meters) it will trigger the creation of an alert that includes the call type, address, school name and time stamp of the alert and forward this alert via email and/or text message to pre-determined group of stakeholders; typically school security personnel and school administrators. Generally, the alerts pertain only to a single school property which can have its own recipient list along with district-wide personnel who get notified for all alerts. In rare instances a serious incident such as a chemical spill or plane crash could have implications for an entire school district, triggering an alert to go out to all school district recipients.

The potential benefit of such alert systems is that it shortens the notification of school officials and speeds up their response while targeted to only the folks it immediately impacts. In most instances schools are not immediately notified of a serious incident by a PSAP or emergency responders until either (a). emergency responders arrive on scene, or (b). a call is made to the school by the PSAP or emergency responders. Emergency responses typically range between 4 and 10 minutes for serious incidents, but may be much higher (30 minutes or more) for lower priority events, which can still be disruptive to schools. Location, weather, staffing and call volume can impact response times as well. In other words, there is traditionally a potential for serious time gaps between an incident occurring and the time schools can take proactive measures due to notification delays. Alert notifications such as 911RTA can close that gap and may improve the speed with which schools can take measures, e.g., school lockdowns, notify parents.

For an alert system to work well, several elements must be present. For one, the call type recoding must be reasonably accurate. Two, callers do not always report the correct incident. This can happen for a variety of reasons. Someone might report shots fired, but in actuality it was fireworks they heard. Worse, in rare instances, callers may purposefully mislead 911 dispatchers to force a rapid response, such as calling in shots fired to break up a neighbor's loud party. Unfortunately, there is little understanding of the accuracy of 911 calls as these data are not always updated to reflect the ultimate reason for the call. Whereas individual calls may thus not match the seriousness of the label of the call, it is reasonable to assume that certain classes of call types do reflect the general nature of the calls. There are some ways to assess the latter by examining the pipeline of calls from CAD systems to Records Management System crime incidents as we will do below.

Administrative Design and Budget

CCSVP was charged with overseeing the administration of the funds. To align with state purchasing guidelines an RFP was issued to select a vendor. Because only one vendor was responsive (SirenGPS), this vendor was selected and a sole-source justification was provided.

SirenGPS became the official vendor for the project for FY2025. CCSVP issued payments to vendor SirenGPS through its purchasing system and payments were made in increments to align with the progress of the project. A total of $422,000 was issued in payments to vendor SIrenGPS while the remaining funds were allocated to CCSVP to provide project administration, data tracking and evaluation services.

Collaboration between the administrator of the project and vendor SirenGPS went smooth with SirenGPS being extremely responsive to requests for information and providing automated updates of key project data to CCSVP. Administrators and vendor representatives met monthly to discuss implementation progress and worked collaboratively to resolve any issues.

Project Goals FY2025

The goal for FY 2025 was to incorporate the alert system in 4-5 School Districts. Despite sustained efforts of vendor SirenGPS that goal was not quite met. Only 3 School Districts (CUSD10, EUCD7 and Peoria SD 150) were ultimately able to utilize the service. Attempts were made to integrate other districts, including: Belleville, Naperville, Cicero and several others. However, for a variety of reasons these districts were unable to complete the data integration required. By all accounts vendor SirenGPS went to heroic efforts to pursue data integration but was thwarted by either an uncooperative vendor, lack of IT support at PSAPs due to personnel turnover or agencies in the middle of CAD vendor transitions, at no point was technological feasibility an issue, however.

The largest challenge is thus not one of technology but rather cooperation of CAD/RMS vendors. The project vendor must tap into a ‘live feed’ of a PSAPs 911 records entries in order to filter, map and determine alert status before they can issue an alert to school districts. This relies on an API feed that pushes entered call information (such as call type, date and time, and location) to the vendor. In order to establish this link integration permission has to be obtained from all involved parties. This means that all police chiefs of the affected PSAPs agree to provide the vendor with access. This has not been an issue, police chiefs and School Districts are uniformly supportive of this data integration. Rather, problems typically occur in either local IT support or a lack of cooperation from the CAD vendor. In order to perform data integration, vendor SirenGPS must have documentation to know how to set up the API calls and typically requires some IT assistance of the PSAP or CAD vendor in order to complete the integration. PSAP IT support can sometimes be difficult as personnel transitions or a PSAP is switching CAD vendors. It is no secret in law enforcement circles that CAD/RMS vendors often explicitly make accessing ‘back end‘ data as complex as possible and often stonewall efforts to integrate third parties and sometimes even law enforcement itself. The reasons is that vendors realize there is value in police/911 data. CCSVP has found this to be an ongoing problem in its own work with Illinois

police agencies and has found that vendors are generally unsupportive of any third-party seeking access to records. What it boils down to is that any service that a third party develops is something the CAD/RMS could also do but isn't currently getting paid to do. In other words, there is a negative incentive for allowing third parties access to what vendors consider 'their' data. While these are logical business decisions, they do impact competition in these products and hamper access to the data more broadly. While this goes a bit beyond the current project, we believe state or federal legislation should create uniform standards for data access to public safety data and hold vendors to fair competition standards in order to maximize access to the data resources agencies rely on and reduce costs and thresholds to switch CAD/RMS vendors. Currently CAD/RMS vendors know they have leverage over their customers, because once a customer is locked in, switching to another vendor is a costly and time-consuming process that can seriously disrupt activities and may render historical data unusable in the new system. It is our belief, therefore, that vendors in public safety must be held to standards that enhances data integration and extraction and improves compatibility across vendors.

Regardless, most CAD/RMS vendors do no present insurmountable challenges, The New World CAD/RMS system that covers the majority of agencies in Madison county, for example, presented few challenges for integration and service was established without difficulties and delays. In other words, the ability to establish alert service depends primarily on the degree to which CAD/RMS vendors present hurdles. We want to reiterate that the project vendor SirenGPS in some cases had to go to heroic lengths to even get responses from a few CAD vendors, and that those delays and missed opportunities reside wholly with these entities.

Study Sites

This study thus extends to three school districts in Illinois, the Collinsville (CUSD10), Edwardsville (ECUSD7) and Peoria School Districts (PSD159). Combined these three districts capture a diverse group of schools and communities ranging from affluent suburban to economically disadvantaged inner-city (see Table 1 below).

	Number of schools	Number of students	% Non-White Students	% reduced/free lunch	Spending per student	911RTA Alerts
Edwardsville	13	7274	22.6	15.8	$13,017	136
Collinsville	13	6140	47.7	44.0	$10,551	149
Peoria	26	12674	80.7	56.5	$17,862	314

Table 1. Select Indicators for School Districts in 911RTA study. Alerts through June 30th, 2025.

Source: https://www.usnews.com/education/k12/

911RTA was fully implemented in January 2025 in Collinsville CUSD10 and Edwardsville CUSD7. In May 2025 Peoria SD150 was added. Between activation and the end of FY 2025, a total of 599 alerts were routed to select personnel in these three school districts. The most common 12 alerts types (each with a minimum of 20 alerts per category and combined accounting for about 2/3 of all alerts) show serious incidents with Fights and Shots Fired calls sharing the top spot (see Table 2 below). Indeed, even more violent incidents were noted in smaller but non-trivial quantities, including 5 calls about sexual assaults/rapes, 9 robberies, and 5 gunshot wounds. In short, the 911RTA system primarily detects and alerts for serious incidents with a high level of potential serious injury. In addition, a secondary group of common call types is formed by alarm calls. These alerts could alert schools to potential armed intruders, but also serve to assist schools to identify other safety concerns such as fire alarms, medical alarms or other operational concerns.

911 RTA ALERTS with more than 20 Notifications:

Call Type	Total	%
FIGHT	52	8.7
SHOTS FIRED	52	8.7
ALARM - MISC	43	7.2
BURGLAR ALARM	37	6.2
THREAT TO COMMIT VIOLENCE	33	5.5
FLOURISHING OF A WEAPON	32	5.3
VEHICLE ACCIDENT - NO INJURY	31	5.2
CALL FOR AMBULANCE	27	4.5
ASSAULT - IN PROGRESS	26	4.3
DISORDERLY CONDUCT	21	3.5
911 CALLER NOT RESPONDING	20	3.3
FIGHT IN PROGRESS	20	3.3
Total	*394*	*65.7*

Table 2. Top Alerts relayed by SirenGPS to Schools Districts in the study.

PEORIA SCHOOL DISTRICT 150

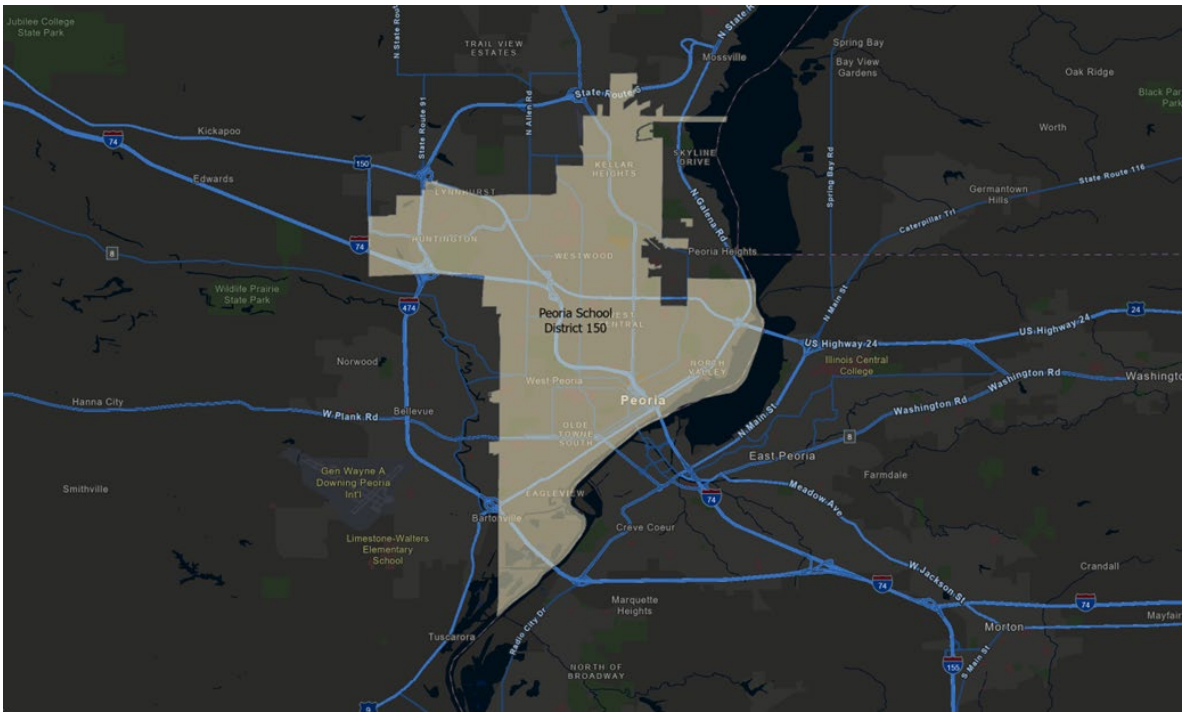

Figure 2. Peoria School District 150, Outline

In Peoria School District 150 SirenGPS processed 19,762 unique calls for service inside the District , between May 5th and June 30th (plus another 10,000 outside the District)[1]. This resulted in 314 alerts relayed to schools, which represents 1.6% of total calls for service. To explore if these alerts detect truly serious incidents, we overlayed the calls for service data with National Incident Based Reporting System (NIBRS) crime data we retrieved from the Illinois State Police website[2]. Matching the date and location of crimes to the date and location of calls for service allows us to determine which calls for service produced serious crime incidents. While we recognize that crimes alone are not a complete inventory of serious incidents schools have to address, it does allow us to gauge how well the 911RTA system filters calls and allows us to assess the validity of most the call types the alert system forwards.

[1] Because the PSAP covers an area wider than just the School District, more calls have to be screened.
[2] https://ilucr.nibrs.com/CrimeAnalytics/index.html

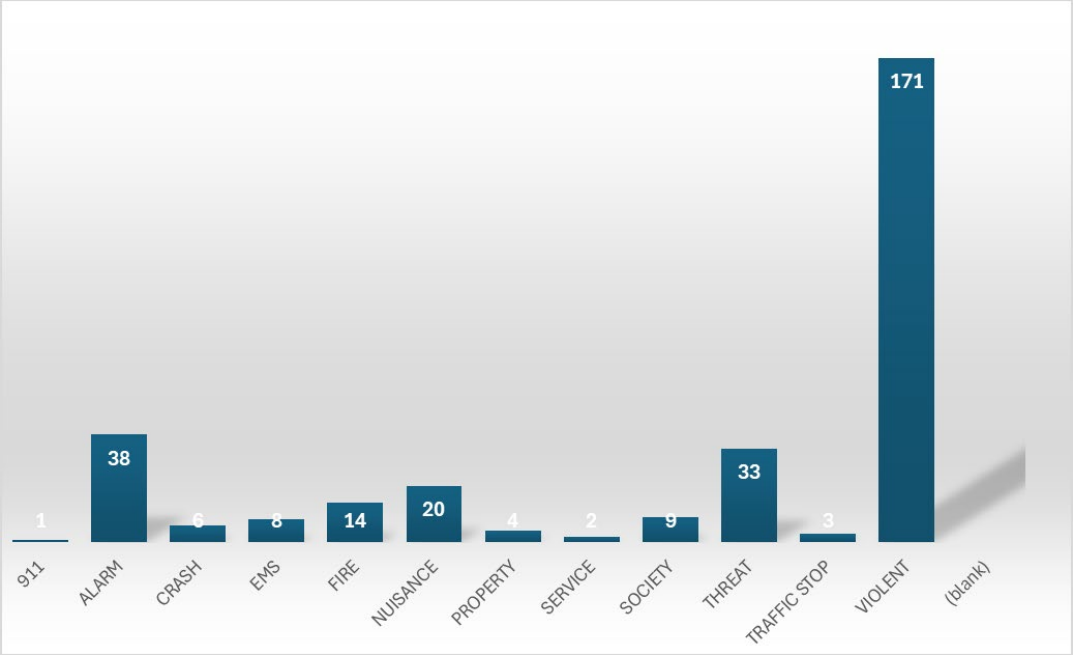

Figure 3. Frequency of 911RTA alerts by Call Type in Peoria School District 150, May-June 2025.

Of the 314 911RTA alerts, 37 (12% of total alerts) were also recorded as formal crime incidents. Indeed, further analysis shows that the majority of these alerts (25) show a component of violence, including at least 8 that typically are committed with firearms. Of all crime incidents tied to 911RTA alerts, 17 NIBRS crimes were reported on school properties, indicating that 911RTA not only capture the majority of serious incidents occurring on school property. The system also captures many incidents directly surrounding school properties and that schools normally would be unlikely to receive any notification on by law enforcement or PSAPs. In other words, actionable information for serious incidents appears to flow well through the 911RTA process.

911 Alerts with connected NIBRS crime report		
Crime Types	Number	Percentage
Aggravated Assault	5	13.5
Larceny	3	8.1
Other Offenses	3	8.1
Burglary	2	5.4
Destruction of Property	2	5.4
Disorderly Conduct	1	2.7
Fraud	1	2.7
Intimidation	2	5.4
Robbery	2	5.4
Simple Assault	13	35.1
Theft From Motor Vehicle	1	2.7
Trespass of Real Property	1	2.7
Weapons Law Violations	1	2.7
Total	37	100.0

Table 3. 911RTA Alerts in Peoria School District 150 with a NIBRS crime incident match.

Collinsville CUSD10

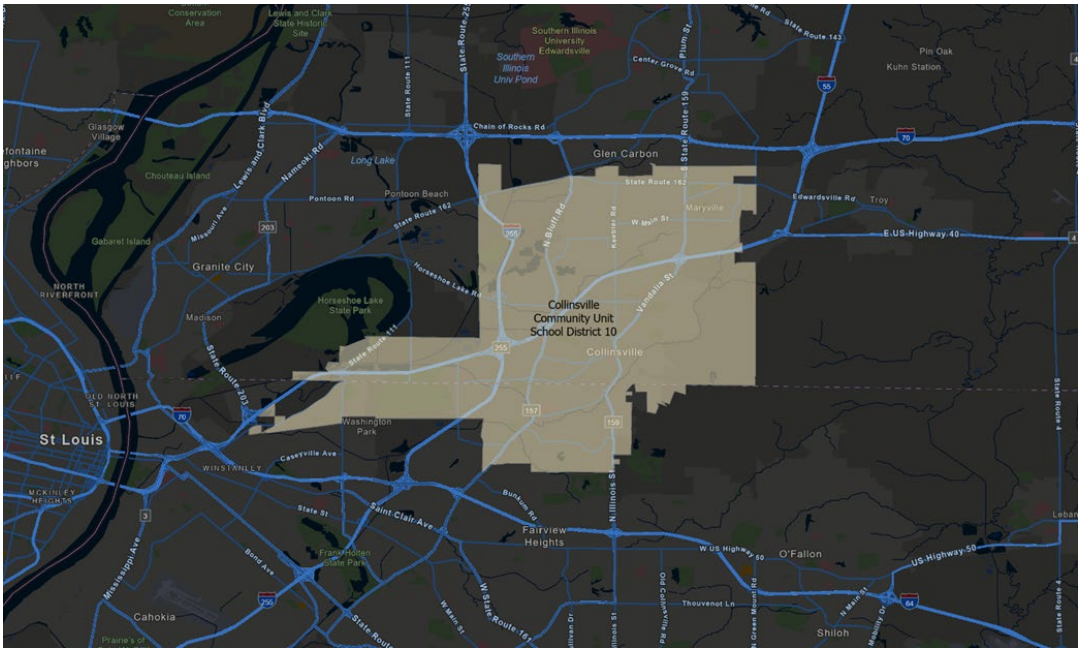

Figure 4. Collinsville CUSD10 Outline.

In the Collinsville CUSD10 School District, SirenGPS processed 23,410 calls for service leading to 149 911RTA alerts being relayed to the School District between January 14th, 2025 and June 30th, 2025. The alerts thus represent only .6% of the total call for service load a substantially lower proportion than we observed in Peoria. Further, for Collinsville, only 3 911RTA alerts resulted in reported crimes that could be linked to alerts, meaning roughly 2% of alerts result in a serious offense, a number substantially smaller than in Peoria but reflective of overall crime differences between the primary cities in each school districts.

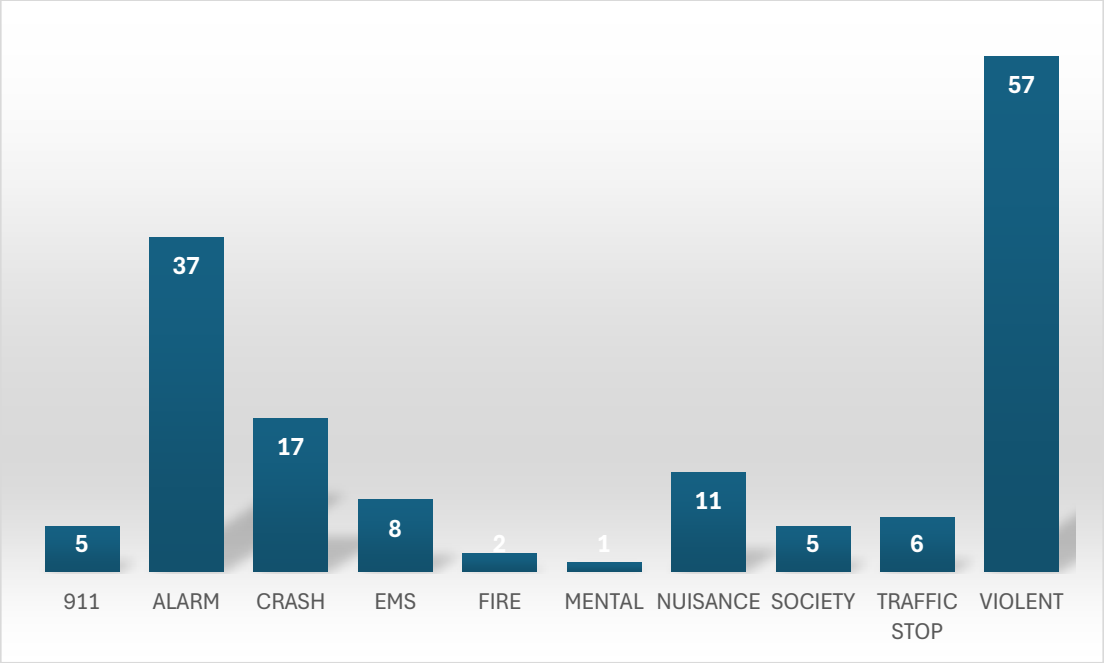

Figure 5. Frequency of 911RTA alerts by Call Type in Collinsville CUSD10 District, Jan-June 2025..

The types of alerts that CUSD10 received (see Figure 5) are similarly composed of incidents that may be qualified as 'violent' in nature. Alerts that indicate alarms and vehicle crashes are also relatively common. This again indicates that the Call Types that lead to alerts primarily uncover serious threats to the safety and operational continuity of school districts.

Edwardsville CUSD7

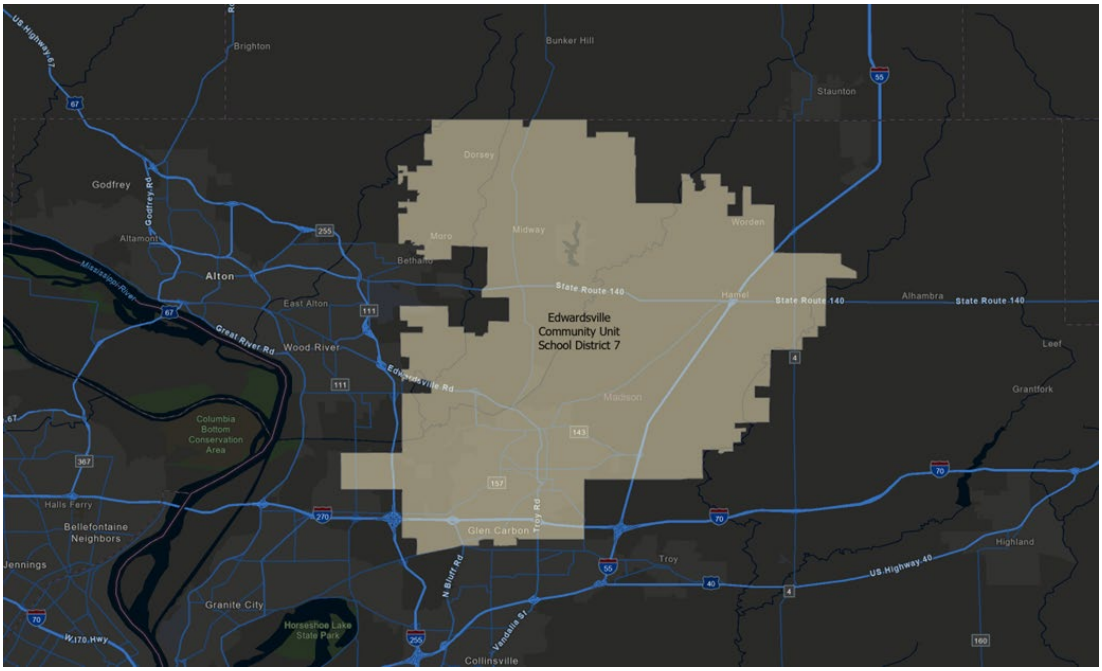

Figure 6. Outline of Edwardsville CUSD7 School District

In the Edwardsville CUSD7 school district, vendor SirenGPS processed over 51,397 calls for service, generating 136 911RTA alerts sent to the district between January 14, 2025 and June 30, 2025. This number of alerts represents only .3% of the total call volume. During this period, and best we could examine, no alert based on a call for service resulted directly in a reported crime. Interestingly the most numerous alert category, is an open 911 call, meaning that someone called dispatch but did not answer when a dispatcher responded. From there the call types resemble the typical pattern we saw in Collinsville and Peoria with primary serious violent incident leading followed by operational concerns (see Figure 7).

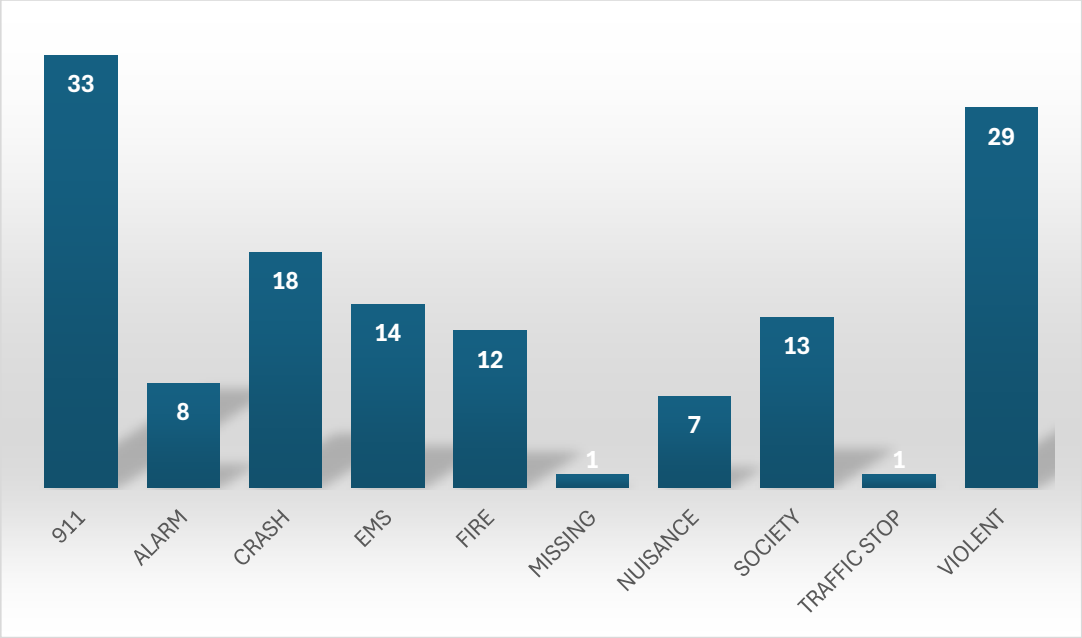

Figure 7. Frequency of 911RTA alerts by Call Type in Edwardsville CUSD7 District, Jan-June 2025.

Analysis and Interpretation of the Data

In the two months it was operational during FY 2025 Peoria generated more 911RTA alerts than Edwardsville and Collinsville in 6 months. Peoria also produced substantially more alerts that were linked to crime incidents. There are likely several reasons for this pattern. Peoria has a higher population density which likely means more people falling within the schools' geofences. While the greater student population in Peoria could also drive up such incidents a more likely explanation is that Peoria suffers from problems larger cities face more generally, including poverty, social dislocations and economic stagnation. Peoria's crime rates are substantially higher than those of either Collinsville or Edwardsville. Although crime data are generally not released at the school district level, data we collected through Illinois State Police's NIBRS program, show that Edwardsville and Collinsville school districts counted a combined total of 900 unique crime

incidents between January and June, whereas Peoria counted 6,282 unique crimes between just May and June. Even considering that Peoria has about double the population of the other two school districts, this suggests that Peoria has about 10 times the volume of crime observed in Edwardsville and Collinsville. We see this reflected in the alerts; 314 in two months versus 136 and 149 alerts in Edwardsville and Collinsville respectively over the course of almost 6 months.

It is important to sketch some nuance about shootings young people experience in or near school settings. A 2020 report of the Government Accountability Office (GAO)[3] reflects our initial data. Poorer and more urban districts typically see more violence occurring just outside school and those incidents tend to be dispute driven, often by non-students. In suburban and more affluent schools, overall fewer incidents occur, but when they do they tend to be targeted and have higher casualties.

From the point of view of filtering calls that are of concern to schools, the 911RTA system appears to be effective at reducing the number of calls to those at or near school properties *and* those that reflect a serious nature. We replicated the process in which SirenGPS determines if a call for service should trigger an alert. After filtering and plotting the historical call logs we found a near perfect degree of concurrence between our alert tagging and the way 911RTA determines the geofence of a school property and creates alerts. We believe it is important that School Districts can configure alerts they receive on the fly, even though that limits our ability to replicate results exactly as there is no contemporaneous log of these changes.

Supplementary analysis was performed on a subset of data for the Edwardsville and Collinsville school Districts to determine how much faster the 911RTA clients would typically become aware of incidents occurring on or near school properties. We requested arrival times of the first emergency responder units, which SirenGPS was able to provide. Unfortunately, the Peoria PSAP did not provide this information in the API information that was sent to SirenGPS, so the results are -for now- limited to only the Edwardsville and Collinsville school districts. We compared, for all alertable calls three metrics: Date/time a call was received by a PSAP, date/time of first responder arrival and date/time the incident information was received by SirenGPS (which is effectively the date/time an alert is transmitted to clients). What we found is that it takes an average of 634 seconds for a first responder to arrive on scene after an incident is reported to a PSAP, SirenGPS, however, receives the incident information on average in 308 seconds, meaning that alerts go out to school officials within roughly 5 minutes after an incident is reported, whereas first responders take about 10 ½ minutes on average to arrive on scene, which is typically how schools become aware of incidents. In effect SirenGPS is able to alert schools 5 ½ minutes before they normally would become aware of serious events. We performed a statistical test (Wilcoxon test) on the mean difference between first responder arriving and SirenGPS

[3] https://www.gao.gov/assets/gao-20-455.pdf

notifications and found those results highly statistically significant, meaning that the improved notification speed was not due to random chance (p<.000), also see figure 8 below. We discussed this measure with vendor SirenGPS and encouraged them to collect the emergency responder arrival time and incorporate this in the data collection process. We believe these times are likely indicative of improvements we may expect in other communities, but incorporating that data provides an unbiased and valuable metric. SirenGPS agreed that this data is important and will make efforts to collect this information where it is available and feasible going forward.

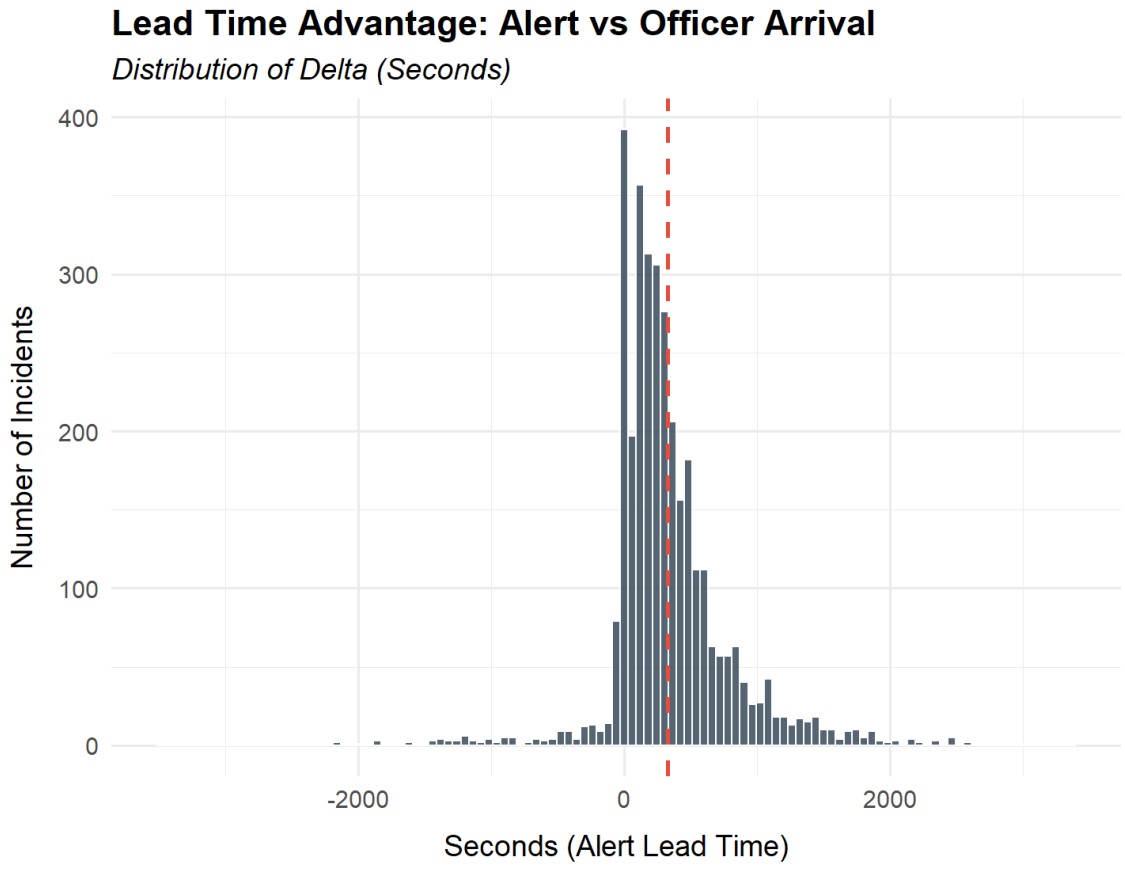

Figure 8. Improvement in 911RTA notifications vs arrival of emergency responder. The dotted red line is the mean improvement in response time (326 seconds).

Client Feedback

Customer feedback is important to assess the functionality and efficacy of 911RTA. In order to measure this CCSVP designed a survey[4]. The survey instrument[5] captures responses of both School District and public safety personnel. The survey was distributed in early June to around 60 educational users of the system in both Missouri and Illinois. Unfortunately, the survey only

[4] SIUE IRB protocol 3040 received exemption status on 4-28-2025
[5] Survey questions can be found in Appendix A

gathered 4 responses. Online surveys in general have low response rates, and reaching busy professionals presents a particular challenge.

The four respondents to the survey were school client users (3) and one PSAP respondent. All users indicated having had training on the system. When asked to rank the system on a scale of 0 to 10, reflecting how well the 911RTA system functions to provide alerts, the average score is 9.25, indicating a high degree of satisfaction with the functionality of 911RTA. Asked about the actionable nature of the alerts, again on a scale from 0 to 10, the average score returned was a 9.5, indicating that users believe the system improves a school's ability to rapidly respond to serious incidents.

The typical number of alerts is described as between 40 and 60, meaning that schools receive roughly 50 alerts per month, or 1-2 per day. However, of that number only about 1-10% is considered 'actionable' meaning that the school can take some direct action. This may suggest that either (1) there is some room to improve the call types being forwarded or (2) that most incidents may simply enhance school vigilance, but there isn't direct evidence, for example, to lock down an entire school. Interestingly, respondents indicate that less than 25% of the alerts originate from calls that the school themselves called in, which means the *majority of alerts are of incidents the school would likely not have expeditious warnings for*. This perhaps more than anything suggests that the alert notifications may close an important public safety data gap for schools. Respondents particularly noted that off campus incidents (usually within 500 feet of school property boundaries) are something they generally remained unaware of prior to the 911RTA system being activated. In effect this is strong evidence that alert notification systems may extend eyes and ears into the community for schools, improving situational awareness and advance warning. Because historical alert data remains accessible within the client portal, there is an untapped source of information for schools that could be used for analysis of policies and procedures, however, the majority of users indicates they currently do not systematically review incident alerts they receive but agree there is a need for this. Because the system currently only relays incident call type, date/time and location the vendor could conceivably provide more data that helps school districts assess which call types may be of greatest concern.

Use Cases

In addition to the survey results, individual feedback from school districts was sought on cases where the alerts service provided material input in active situations.

For example, CUSD#10 personnel received a proximity alert for ARMED SUBJECT indicating that an individual with a weapon was at large in the area near one of their schools. The alert was distributed to the school's principal and school security. Within seconds the school activated appropriate security protocols, putting the school on a soft lock-down. Two school resource

officers and school district security administrators were then contacted by school administrators and advised of the threat. A school resource officer at the school immediately engaged in coordinating communication, getting updates via radio and phone from police dispatch, and updating the school district's security and administration. A second school district resource officer was called from another location and moved quickly to provide support. CUSD#10 personnel indicates that this incident demonstrates that 911RTA helped them better coordinate their efforts. One officer indicated that the alert put them in a position to respond quickly and efficiently – with everyone on the same page. During discussions it was learned that Collinsville's school resource officers (SROs) had not been included as notification recipients. Mr. Foley and Officer Madron indicated that they believed the service would be more effective if SRO's were included, and indicated that adding Collinsville's SRO's as notification recipients would be a priority.

In Peoria CUSD 150 school officials indicated that notifications for SHOTS FIRED received by school district personnel during a recent incident demonstrated that the notification service helps make their schools safer. The incident involved an exchange of gunfire that took place near one of the district's schools. Police investigating the shooting death of a recently graduated Peoria School District student were confronting a suspect at a residential location in the district.

Chief Boone observed that receiving real-time notifications during the incident supplemented dispatch radio traffic, improving situational awareness. He explained that delivering alerts to school district personnel created an opportunity to respond more quickly. While school was not in session at the time of the incident, Chief Boone said he was confident that timely notifications would have allowed them to secure their schools

In addition to the specific use-cases referenced by the school district, some general feedback also indicates some areas where minor general improvements could be implemented to further enhance notifications:

Regarding incidents occurring on school property, such as medical emergencies, the need for notifications appeared to be less urgent than for incidents that occur in the community nearby. CUSD#10 indicated that existing protocol for school district personnel to call security in addition to calling 911 was deemed adequate for most on premise incidents.

CUSD#10 officials further indicated that the location of the police department across the street from the school district administration building generated several alerts when dispatch recorded a report of a previously occurring incident. While such alerts can be eliminated by PSAPs adopting a "Report Only" incident designation, it could also be improved by more careful construction of geofences to exclude such locations.

On several occasions 911 dispatchers used a school district address as a landmark for traffic incidents occurring nearby, generating alerts indicating that an accident had occurred on school property when this was not the case. School district personnel acknowledged the

expedience of using a school as an obvious landmark to expedite first responder travel as an acceptable trade-off with limited impact.

CUSD#10 indicated that they would very much like to have alert coverage for the two school properties located in an area dispatched by St. Clair County's CenCom PSAP, Caseyville & Hollywood Heights. This is an example of MAUP, or the Modifiable Areal Unit Problem where the geographic unit of one type of organization does not neatly align with that of another. In this particular case the 911RTA alert system covers the Madison County PSAP, but has not yet been able to onboard St. Clair County's PSAP. Such gaps in coverage are likely to occur but not particularly common. For example, law enforcement, in particular PSAPs are more typically organized within county boundaries, whereas school districts more often extend beyond counties. While this principally causes no technical issues for integration, the onboarding of PSAPs spanning multiple counties can pose challenges if only some CAD vendors prove cooperative.

Ancillary Benefits

As evaluators, CCSVP receives weekly incident and alert data from all the PSAPs in the study through SirenGPS. We believed that police departments could use this information to provide public awareness about emergencies and policing in their communities. We discussed the availability of this data with the Collinsville Police Department who believed the data would provide a reliable way to keep residents informed. We agreed to share the data back to the police department -who does not have direct access to this information- and create a public facing dashboard for them. Collinsville PD now host dashboard access on their website[6]. We believe more agencies will be interested in such service as many agencies struggle to access this information and don't have the capacity to process and share them with the public.

Policy & Practice Perspective

From a policy and practice point of view the current review of the 911RTA system has found largely supportive evidence for the implementation of a school alert notification system. To be fair, the overall evidence is still limited and we urge some caution given the small sample size of current schools that have implemented the system and the limited user feedback received.

Nonetheless, it is clear that the system (1) performs as intended. It correctly identifies - from a large number of calls for service- a relatively small subset of incidents that may present a direct safety issue or a potential disruptive event. (2) Both user feedback and quantitative data indicate that the alerts system operates rapidly and improves the ability of schools to actionably respond to active threats or other security issues. (3) Quantitative analysis shows that alert

[6] https://www.collinsvilleil.org/departments/police-department/calls-for-service

notifications are sent about 5 ½ minutes prior to first responders arriving on scene, indicating a substantial improvement in schools becoming aware of serious incidents and providing them critical extra time to respond to potential safety threats.

Vendor SirenGPS has continued to make improvements to the system (such as the ability of clients to turn off notifications during certain times – when school is out) that will further improve the actionability of the alerts and reduce the likelihood that the system pushes alerts of low significance. While we had initial concerns about a large number of alerts going out to schools, potentially creating oversaturation, we did not see any evidence of this problem. Because the implementation of the system in Illinois at the time of this writing was limited to a few months, a longer and more diversified sample of schools would provide a greater opportunity to assess pros and cons of such systems. In sum we believe that the decision to renew this project for FY2026 presents an expanded opportunity to gather user feedback and allow the vendor to expand the portfolio of school districts enrolled.

Conclusion

Vendor SirenGPS integrated service in FY2025 to three Illinois School Districts, Edwardsville, Collinsville and Peoria. Data integration in those instances went eventless and analysis of data received from these efforts and customer feedback it is more than reasonable to conclude that the efforts have added a resiliency layer to schools and improved their readiness to respond to active threats in a more cohesive manner and advance communication in such conditions with all public safety stakeholders. This notwithstanding data integration has not always been without issue, but the issues are neither technical, nor an issue of willingness of schools and public safety partners to participate in the program.

Considering the evidence at hand we believe the implementation of an emergency alert system for schools is technically unproblematic; the main drag on the project in FY2025 was not a technical issue, nor issues related to schools, police departments and PSAPs willingness to participate. As evidenced by the current emergency alert notification vendor, SirenGPS, data integration and pushing alerts notifications can be implemented expediently and securely and results in measurably faster information relay than first responders arriving on scene.

Our main concerns rest on *some* CAD/RMS vendors who can effectively hold public safety data hostage by slow-walking data integration. While we believe it would be in the public interest to scale up emergency alert notifications to schools, state-wide access to such a service would thus face some hurdles as integration -while technically feasible- can be delayed and potentially be obstructed by CAD vendors. In our experience this is not a problem unique to Illinois but part of wider issues in this market and one that has adversely impacted police departments and PSAPs nationwide. The difficulty in accessing their own public safety data occurs because of proprietary

systems -ill-designed to cooperate with other systems- has been a notable drag on public safety agencies in general. Practically the implication for emergency alert notification systems like 911RTA will be that data integration can be difficult, particularly in under-resourced rural communities where public safety agencies do not have their own IT staff that can work around some of these issues. Notwithstanding this limitation, data integration is likely to be more feasible in school districts that suffer more from the problems that 911RTA detects, meaning that the allocation of state funding to this service targets the correct entities.

911RTA Client Survey Instrument:

911RTA SURVEY

Start of Block: Default Question Block

PASSIVE INFORMED CONSENT:

Q1 The following survey asks questions about the 911RTA emergency alert notification system implemented in a school district you either work, or provide emergency services for. The answers you provide will help us understand the efficacy of the system and will play an important role in improving public safety in school environments. It is anticipated that completing this online survey will take around 15 minutes for most users.

Aim of the current study: Dr. Dennis Mares Director of the Center of Crime Science and Violence Prevention (CCSVP) is inviting you to participate in the research study: Evaluating the efficacy of 911RTA emergency alert notification. The purpose of this study is to examine the efficacy of the 911RTA system in expediting school responses to potentially hazardous situations in school environments. Your can assist greatly by answering the questions on this survey and provide your perception and input on this topic.

Potential Risk: The risks to you as a participant are minimal. We recognize, for example, that many individuals working in schools and emergency response certainly may have experienced traumatic emergency events and to minimize risk from this study we will not ask about such events. It is important to know that there are no right or wrong answers on this survey.

Privacy: The results of this study may be published in academic settings, or may otherwise receive attention in public settings such as news media. However, your answers are anonymous. The survey will not ask for your name, or ask you to reveal other characteristics about yourself that could reveal your identity (such as age, gender, race, location). The survey will also not collect your IP address or other information that could reveal your identity or location. Nonetheless all data collected by the researcher will be treated with great care and stored in systems with multi-factor authentication to further protect your individual responses. Individual responses will also not be shared with anyone, including your school district, PSAP or public safety agency. Publication of the results of this study will also never focus on individual answer, but rely on the combined results of all research participants. CCSVP is not part of SirenGPS or 911RTA but an independent research center at Southern Illinois University Edwardsville and contracted by the State of Illinois to evaluate the alert notification system.

Benefits: Participation in this study may/will not benefit you directly, but will hopefully by create a better understanding the efficacy of the 911RTA alerts system and understanding the costs and benefits of the system. Results may also help to improve the system, or other efforts to improve school safety.

Participation: Participation in this survey is voluntary, but we do hope that you decide to participate. If you decide not to participate, there will not be a penalty to you or loss of any benefits to which you are otherwise entitled. You may also stop answering survey questions at any time, for any reason.

Questions/concerns: If you have questions about this research study, you can call Dr. Dennis Mares at 618-650-5114 or email at dmares@siue.edu. This survey has been reviewed and approved by SIUE's Institutional Review Board (IRB) as protocol #3040, April 28thy, 2025. If you have questions about your rights as a research participant, you can call the SIUE Institutional Review Board at 618-650-3010 or email at researchcompliance@siue.edu. Proceeding to the next page will signify you agree to CCSVP collecting, storing and analyzing the responses you provide on the survey and that you have read the above.

End of Block: Default Question Block

Start of Block: Block 1

Q3 Are you aware of the 911RTA system servicing the school district in your community?

- No (1)
- Maybe (2)
- Yes (3)

Q4 Approximately how long has the system been operational in the school district your agency/organization serves?

- 1 month or less (1)
- Between 1 and 2 months (2)
- Between 3 and 4 months (3)
- Between 5 and 6 months (4)
- Over 6 months (5)
- I am not exactly sure (6)

Q5 Have you received any training related to 911RTA?

- No (1)
- Maybe (2)
- Yes (3)

Skip To: Q6 If Have you received any training related to 911RTA? = Yes

Skip To: Q6 If Have you received any training related to 911RTA? = Maybe

Skip To: Q12 If Have you received any training related to 911RTA? = No

Q6 Approximately how many 911RTA training sessions did you attend?

- None (1)
- 1-2 (2)
- 3-4 (3)
- 5 or more (4)

Q7 Was the training helpful in working with/understanding the system?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Q8 Were the training materials and/or examples easy to understand?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Q12 During your use of the system have you had to contact SirenGPS (911RTAs vendor) for customer support?

- No (1)
- Maybe (2)
- Yes (3)

Skip To: Q43 If During your use of the system have you had to contact SirenGPS (911RTAs vendor) for customer supp... = No
Skip To: Q15 If During your use of the system have you had to contact SirenGPS (911RTAs vendor) for customer supp... = Maybe
Skip To: Q13 If During your use of the system have you had to contact SirenGPS (911RTAs vendor) for customer supp... = Yes

Q13 How often did you contact customer support?

- 1-2 times (1)
- 3-5 times (2)
- More than 5 times (3)

Q14 Were your issue(s) resolved in a timely manner?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Q15 If you can describe the nature of any issues you encountered with the system, please briefly describe them below.

_____

Q43 How well do you thinks the 911RTA system functions in providing alerts (move slide to rating)?

Q36 How well do you believe the system improves a school's response to serious incidents at schools (move slide to rating)?

Page Break

Q2 What best describes your user role with respect to the 911RTA emergency alert notification system?

- School employee or School Resource Officer (SRO) (1)
- PSAP employee or emergency responder (Police, Fire, EMS) (3)

Skip To: Q16 If What best describes your user role with respect to the 911RTA emergency alert notification system? = School employee or School Resource Officer (SRO)

Skip To: Q23 If What best describes your user role with respect to the 911RTA emergency alert notification system? = PSAP employee or emergency responder (Police, Fire, EMS)

Q16 As a school employee / SRO what is your view on what an emergency alert notification system like 911RTA should accomplish?

- Improve the response to active incidents in or near school properties (1)
- Improve the school district's response to active incidents in or near school properties (2)
- Improve the coordination of the response between law enforcement and schools to active incidents in or near school properties (3)
- Get a better sense of incidents in or near school properties / improve situational awareness (4)
- All of the above (5)
- None of the above (9)

Q17 Do you believe the 911RTA system accomplishes this/these goals?

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q59 Before implementing 911RTA what was the typical way in which your school would be made aware of serious incidents occurring in or near your school (select all that apply):

- ☐ Dispatch/police department would call (1)
- ☐ Police would visit location of incident (2)
- ☐ We often wouldn't be aware (4)
- ☐ Other (3)

Q18 Approximately how many 911RTA notifications do you receive during a typical month?

- ○ 0-10 (1)
- ○ 10-20 (2)
- ○ 20-40 (5)
- ○ 40-60 (3)
- ○ 60 or more (4)

Q19 Out of this monthly number, about how many would you say are 'actionable' (lock down, investigate, etc) from the school's side?

- 0 (1)
- 1-5 (2)
- 5-10 (3)
- 11 or more (4)

Q60 If you can explain, which types of general actions are most common in response to 911RTA alerts? (e.g. building lockdown, investigate, coordinate with law enforcement, etc).

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Q20 Thinking again about this typical monthly number of alerts you receive; about what proportion of the alerts originate directly from the school or SROs?

- 0-25% (1)
- 25-50% (2)
- 50+% (3)

Q63 Do the 911RTA alerts you receive about incidents occurring on school property help improve the school response to the incident?

- They help a lot (1)
- They help a little (2)
- I am unsure they help (3)
- I don't think they help (4)
- I think they hurt more than they help (5)

Q64 For 911RTA alerts that do NOT occur on school property but in the community and possibly impacting school operations. Would you typically be aware of these incidents before the 911RTA alert system was activated?

- Yes, most of the time (1)
- Yes, sometimes (2)
- Not sure (3)
- No, we rarely hear about these incidents through other sources. (4)

Q65 If you receive notifications from emergency services about such incidents impacting schools, what would be the normal means in which emergency services communicate those to you?

- Phone/text (1)
- Email (2)
- Other means (3)

Q21 911RTA alerts are tailored to the specific needs of your school system, do you believe that the alerts you receive are the most important ones?

- ○ Yes, the alerts I get are exactly the incidents I would want to know (1)
- ○ Mostly, the alerts I get are mostly the incidents I would want to know, but there are additional types of incidents that would be helpful (2)
- ○ Mostly, the alerts I get are mostly the incidents I would want to know, but there some types of incidents in the alerts I would rather not get (3)
- ○ No, the alerts do not really give me the incidents I would want to know about (4)

Q22 Based on your last answer, please indicate -if you can- which calls you would and/or would not prefer to receive?

_____

Q56 The system interface allows some customization of alerts, have you or others (tried to) made modifications to the alerts for your alert group?

- ○ Yes, we made changes (1)
- ○ We tried to make changes but were unsuccesfull (2)
- ○ No we made no changes (3)

Q57 Which, if any data, features or abilities do you wish the system would add, change or remove? For example, would you like to have the ability to turn (some of) the notifications off during certain times/days?

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Q61 Do you ever examine past incidents from the vendor portal to look for patterns in the data that may help you revise/update policies and practices?

- Yes (1)
- No, but that is probably something we should do (2)
- No (3)

Skip To: Q54 If Do you ever examine past incidents from the vendor portal to look for patterns in the data that m... = Yes
Skip To: Q54 If Do you ever examine past incidents from the vendor portal to look for patterns in the data that m... = No, but that is probably something we should do
Skip To: Q54 If Do you ever examine past incidents from the vendor portal to look for patterns in the data that m... = No

Q23 How familiar are you with the 911RTA emergency alert notification system deployed by (some of) the school district in your municipality?

- Not familiar at all (1)
- Slightly familiar (2)
- Moderately familiar (3)
- Very familiar (4)
- Extremely familiar (5)

Q24 What best describes your role in emergency management?

- Dispatcher (1)
- EMS/Fire (2)
- Law Enforcement (3)

Q62 Excluding the 911RTA system, how do schools and SROs typically get notified of emergency situations through your PSAP or police department?

- Dispatchers/police will call the school/SRO (1)
- Dispatchers/police will call school leadership (2)
- Police officers will visit the school in person (3)
- Other (4)

Q25 Do you know which call for service types are being forwarded through 911RTA?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Q26 Do you believe these call types are mostly the ones that should be forwarded?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Q30 If you believe certain call types should be added or excluded from the notifications, please indicate here which ones and indicate if they should be added or removed

_____

Q28 Do you believe the 911 RTA notifications make your job easier?

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q29 Do you feel the 911RTA notifications help the schools mount a better initial response before emergency responders may have a chance to arrive?

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q32 Do the 911RTA notifications help the emergency responders?

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q31 On the whole, do you believe 911RTA helps the overall response to school-related incidents?

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q33 As a dispatcher/emergency responder, you probably have a good insight in how long a response can take to a traditional 911 call; on the whole what is the typical traditional emergency response speed (from call received to units on scene) to schools in your area?

	0 3 6 9 12 15 18 21 24 27 30
Select typical response time in minutes ()	

Q44 If you have any other questions or comments about 911RTA please let us know below.

_____

_____

_____

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_____

Q52 Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the same notification speed as 911RTA?

- Definitely not (1)
- Probably not (2)
- Might or might not (3)
- Probably yes (4)
- Definitely yes (5)

Skip To: Q53 If Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the sa... = Probably yes
Skip To: Q53 If Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the sa... = Definitely yes
Skip To: Q54 If Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the sa... = Definitely not
Skip To: Q54 If Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the sa... = Probably not
Skip To: Q54 If Do you believe improvements in your dispatch center/PSAP procedures could help you achieve the sa... = Might or might not

Q53 What improvements would this take?

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Q54 How would you feel if the 911RTA system ceased operations at schools in your community?

- Extremely unhappy (1)
- Somewhat unhappy (2)
- Neither happy nor unhappy (3)
- Somewhat happy (4)
- Extremely happy (5)

Q55 Please feel free to add more detail to you prior choice.

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End of Block: Block 1