Microsoft Access and Excel for Data-Driven Crime Analysis: A 5-Part Series

Part 1: Data-Driven Strategy Basics and SAFER Model in Action

Welcome to our 5-part training series designed to equip law enforcement professionals with innovative, data-driven tools and strategies to enhance public safety. This series reflects the ongoing commitment of the Texas Department of Transportation (TxDOT) and IADLEST, a one-of-a-kind partnership now entering its 10th year. Together, we're empowering agencies across Texas with free nationally certified training and analytical assistance to address both crashes and broader social harms effectively.

Since 2015, this collaboration has focused on creating impactful, data-driven solutions to reduce crashes and save lives statewide. This year's initiative, Using Data-Driven Strategies, Analysis, & Training to Reduce Crashes and Social Harms and Save Lives, streamlines past projects into a more comprehensive and efficient program.

Through this series, you'll gain hands-on experience with key tools like Microsoft Access® and Excel®, master advanced analytical techniques, and explore holistic approaches to public safety. These tools are essential because they allow law enforcement agencies to manage, analyze, and make data-driven decisions based on the information stored in databases, which are the backbone of operational efficiency and effective public safety strategies.

Over the course of this 5-part training series, we'll explore a range of topics designed to enhance your agency's analytical capabilities and improve public safety outcomes. In Part 1, we'll lay the foundation by introducing data-driven strategies and exploring the SAFER model in action, setting the stage for more advanced techniques. In Part 2, we'll dive into creating helpful queries and reports to streamline workflows and automate repetitive tasks. Part 3 will focus on building master tables and implementing best practices for data quality and cleaning. Moving into Part 4, we'll explore advanced expressions and automation processes to enhance efficiency and precision in analysis. Finally, in Part 5, we'll bring it all together by applying statistical techniques, such as Z-scores, in Excel® while integrating tools like Microsoft Access® for deeper insights into crime patterns and trends. This comprehensive series is designed to provide you with practical, actionable tools to support data-driven decision-making in your agency.

This training is about more than just tools—it's about creating safer communities through smarter, data-driven decision-making. IADLEST is proud to continue this vital work with TxDOT, and we are honored to support your agency's commitment to excellence.

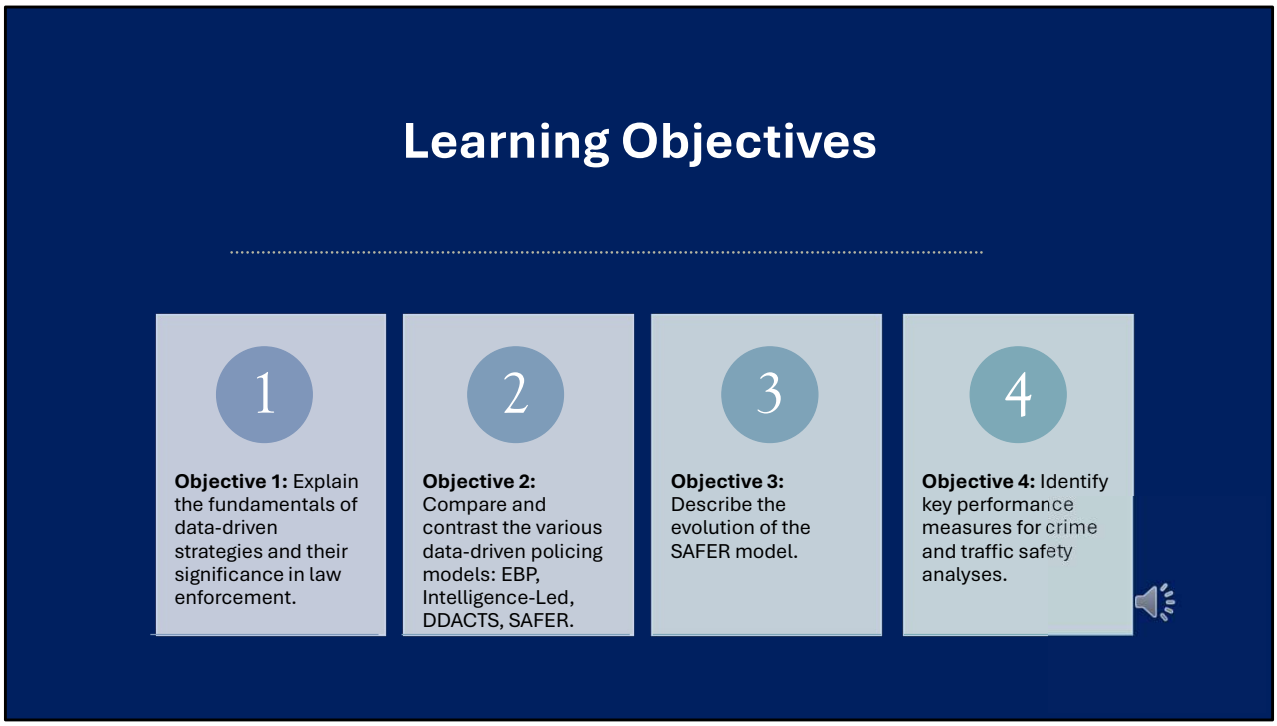
Let's get started!

Welcome to **Part 1: Data-Driven Strategy Basics and SAFER Model in Action**

I'm Dawn Reeby, and I'm honored to guide you through this transformative training. With over 25 years in law enforcement analysis, I've spent nearly 14 of those years collaborating with IADLEST to deliver impactful analytical trainings, webinars, and technical assistance nationwide. Our work focuses on helping agencies implement smarter, data-driven strategies while fostering high-performing teams. As the author of *Bigger Than Data* and the *Building a Crime Analysis Legacy* books, my mission is to empower crime analysts and supervisors to strengthen their careers, build team capacity, and leave lasting legacies in the field.

In this session, we will dive into the foundation of data-driven strategies and explores how the Strategic Analysis for Focused Engagement with Results (SAFER) model can enhance crime and traffic safety analysis.

Let's get started!



Welcome, everyone! Today's session will provide a solid foundation for understanding data-driven strategies and their critical role in effective law enforcement. We'll be diving into the **Strategic Analysis for Focused Engagement with Results**, or **SAFER** model, to see how it can enhance both crime and traffic safety analysis.

Throughout this session, we have several key objectives. First, we'll explore the fundamentals of **data-driven strategies** and why they're so essential for modern policing. We'll then review various data-driven models in policing, including **Evidence-Based Policing (EBP)**, **Intelligence-Led Policing**, **DDACTS**, and of course, the **SAFER model**.

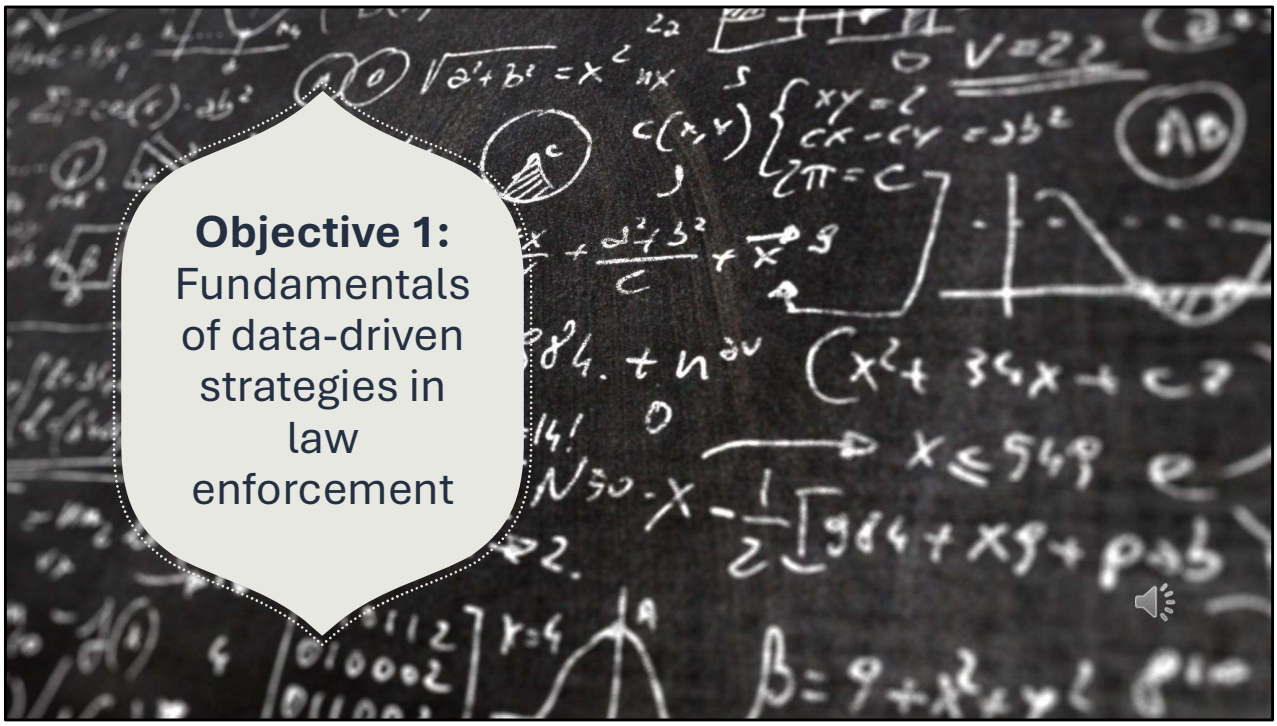
We'll trace the evolution of the SAFER model, starting from the original DDACTS framework, moving through DDACTS 2.0, and arriving at SAFER's comprehensive approach. Finally, we'll discuss **key performance measures** that are crucial for effective crime and traffic safety analysis.

Part 1: Data-Driven Strategy Basics and SAFER Model in Action
This session introduces participants to the foundation of data-driven strategies and explores how the Strategic Analysis for Focused Engagement with Results (SAFER)

model can enhance crime and traffic safety analysis.

Learning Objectives:

1. Explain the fundamentals of data-driven strategies and their significance in law enforcement.
2. Compare and contrast the various data-driven policing models, including Evidence-Based Policing (EBP), Intelligence-Led Policing, DDACTS, and SAFER, highlighting their similarities and differences.
3. Describe the evolution of the SAFER model, including its development from DDACTS to DDACTS 2.0 and finally to SAFER.
4. Identify key performance measures that are critical to effective crime and traffic safety analysis.



Objective 1: Explain the fundamentals of data-driven strategies and their significance in law enforcement.

Addressing Traffic Fatalities and Crime Clusters

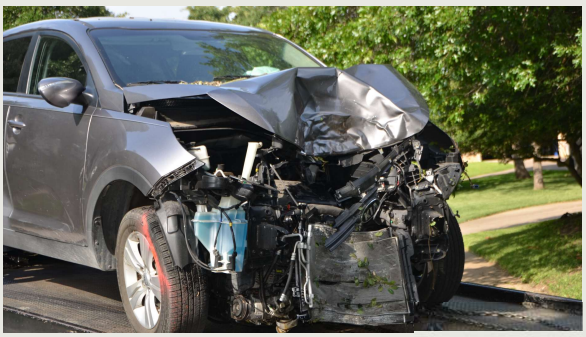


Image *road-traffic-street-car-wheel-automobile-driving-transportation-repair-vehicle-drive-broken-metal-auto-speed-tire-crash-motor-vehicle-danger-safety-disaster-front-collision-accident-body-wreck-damage-loss-dangerous-emergency-safe-rescue-injury-insurance-smash-hit-sport-utility-vehicle-land-vehicle-automobile-make-automotive-exterior-712092.jpg (4928×3264)*

Welcome to today's presentation on traffic safety and crime reduction strategies.

Traffic injuries and fatalities remain critical global issues, affecting individuals and families across the world. In 2023, the National Highway Traffic Safety Administration reported a staggering 42,514 traffic deaths from 5.9 million crashes, with a fatality occurring every 14.5 minutes. Motor vehicle crashes are the second leading cause of accidental deaths in the United States. In Texas alone, there were 15,219 serious injury crashes and 4,283 fatalities.

Beyond the human toll, the costs of crashes continue to climb, encompassing productivity losses, legal expenses, medical costs, and property damage. These crashes often occur in clusters on specific street segments, exacerbating their impact.

In addition to the physical harm caused by crashes, communities also face the social harm of crime. Property crimes, particularly aggravated assault, contribute to significant community losses, with estimates of over $16 billion annually in property damage. Like

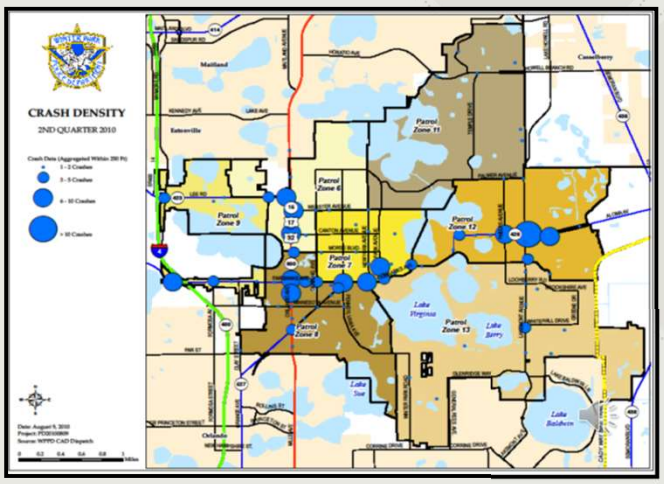
crashes, crimes are often spatially concentrated, and many individuals use vehicles to travel to crime hotspots.

The research presented today highlights that both crashes and crime tend to cluster in certain areas. The key to effectively addressing these issues lies in a strategic approach that focuses on these spatial patterns, maximizing police visibility and engagement in the areas where they will have the most significant and cost-effective impact.

What Data-Driven Strategies Can Do For Your Agency

PROVIDE AN UNDERSTANDING OF TRENDS

Winter Park, Florida crash hot spots

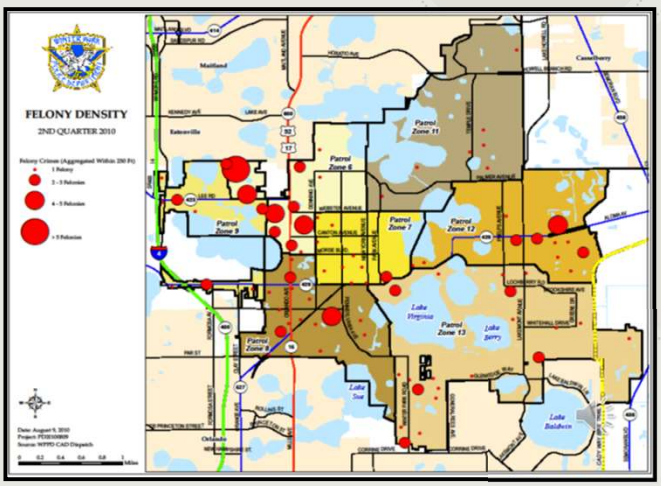


Example 1a: This slide shows the crash data in Winter Park Florida, prior to their implementation. The larger the circle, the more crashes.

What Data-Driven Strategies Can Do For Your Agency

PROVIDE AN UNDERSTANDING OF TRENDS

Winter Park, Florida felony crime hot spots

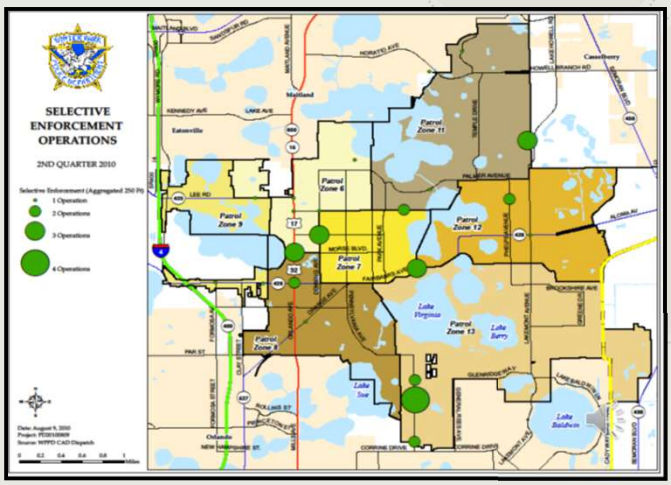


Example 1b: This map shows the felony crime data in Winter Park, Florida, prior to their implementation. The larger the circle, the more felony crime.

What Data-Driven Strategies Can Do For Your Agency

PROVIDE AN UNDERSTANDING OF TRENDS

Winter Park, Florida
engagement hot spots

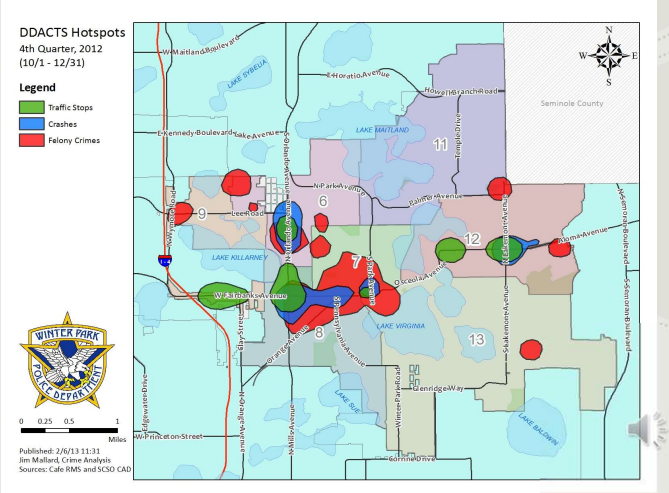


Example 1c: This map shows the traffic enforcement data in Winter Park Florida, prior to their implementation. The larger the circle, the more tickets.

What Data-Driven Strategies Can Do For Your Agency

PROVIDE AN UNDERSTANDING OF TRENDS

Winter Park, Florida **better align** of engagement with activities for greatest impact



Example 1d: This map shows Winter Park, Florida's efforts. Enforcement activities are more aligned with crimes and crashes, leading to subsequent reductions.

The value of **Guiding Principle #6** is demonstrated here. However, notice that there is still work to be done. Management should focus resources specifically on the areas where the blue and red overlap.

Data-driven policing relies on timely, accurate, and complete data to effectively address public safety concerns. It pulls from a variety of information sources, such as crime reports, traffic data, CRIS (Crash Reporting Information System) reports, and community feedback. CRIS reports, in particular, are invaluable for identifying crash causal factors and understanding patterns that may correlate with criminal activity.

By utilizing data-driven strategies, law enforcement agencies can identify areas disproportionately impacted by both crime and crashes, allowing them to allocate resources more efficiently and focus efforts on high-priority zones. This approach helps to recognize emerging trends early, enabling proactive

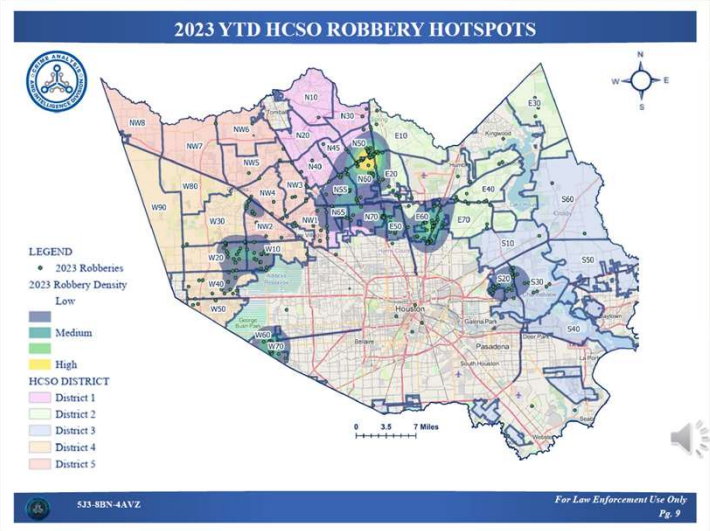
interventions and strategies that can reduce both crime and traffic incidents.

Ultimately, leveraging data in policing not only enhances operational efficiency but also empowers agencies to make informed, strategic decisions that directly impact community safety.

What Data-Driven Strategies Can Do For Your Agency

PROVIDE AN UNDERSTANDING OF TRENDS

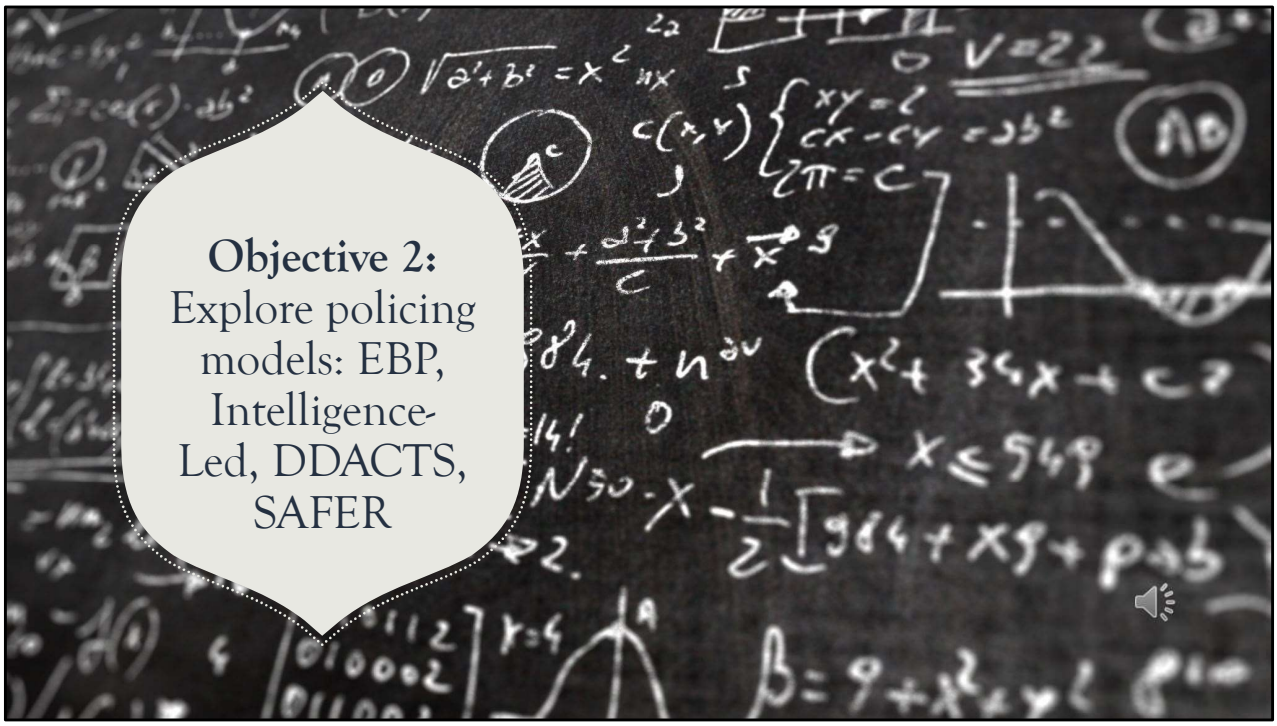
Harris County, Texas



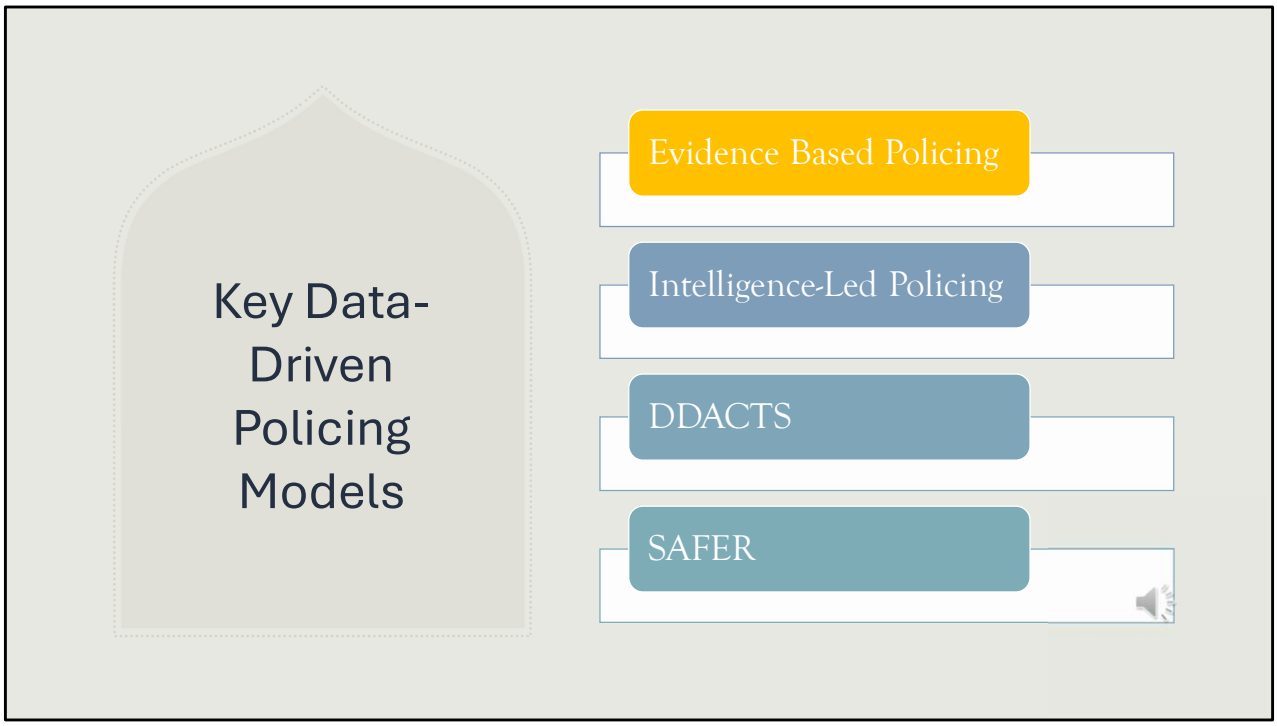
Example 2: This map illustrates the power of strategic analysis, which focuses on identifying specific problems, such as hot spots, analyzing their root causes, and recommending preventative measures.

This robbery map from Harris County, Texas, is part of a broader report that examines long-term crime hot spots and their patterns.

As highlighted by IACA definitions, this type of analysis is not limited to crime alone. It also applies to non-criminal social harms—such as noise, disorder, and traffic crashes—that fall within the scope of police response and investigative authority.



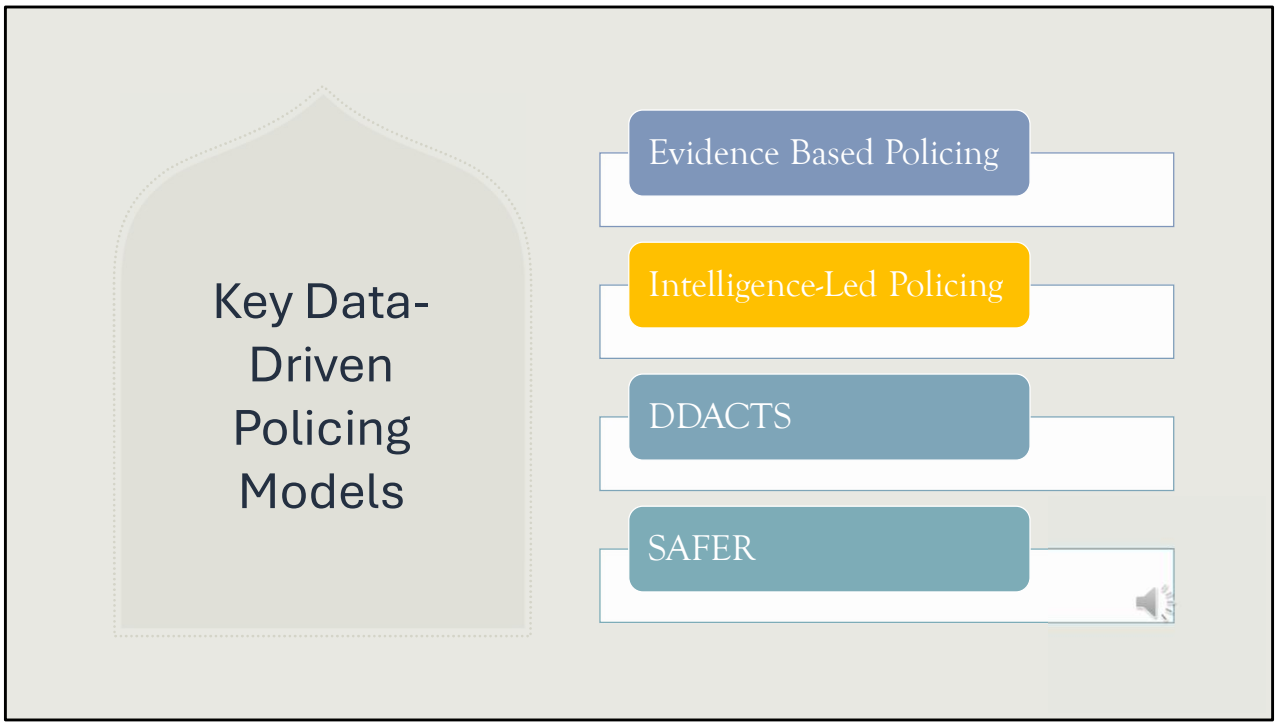
Objective 2: Compare and contrast the various data-driven policing models: EBP, Intelligence-Led, DDACTS, SAFER.



Today, we're starting with an overview of four foundational policing models that are shaping modern law enforcement: Evidence-Based Policing (EBP), Intelligence-Led Policing (ILP), DDACTS, and SAFER. Each of these approaches brings unique methodologies and objectives to the table, from scientific research to data-driven insights, all aimed at making communities safer and law enforcement more effective.

The first model, *Evidence-Based Policing*, or EBP, revolves around using high-quality research to guide policing decisions. EBP isn't just about analyzing crime data; it's about applying methods and strategies that have been rigorously tested and scientifically validated. This model prioritizes using proven practices that can reliably reduce crime and improve public safety. Unlike other models, EBP isn't driven by trends or traditional approaches; it emphasizes adopting long-term, sustainable solutions based on solid evidence of what actually works in law enforcement.

In practice, EBP requires officers and leaders to actively engage with the latest research and incorporate it into policies and procedures. By leveraging evidence-backed strategies, departments can make smarter, more impactful decisions—ensuring that resources and tactics are optimized to address community needs and enhance overall policing effectiveness.

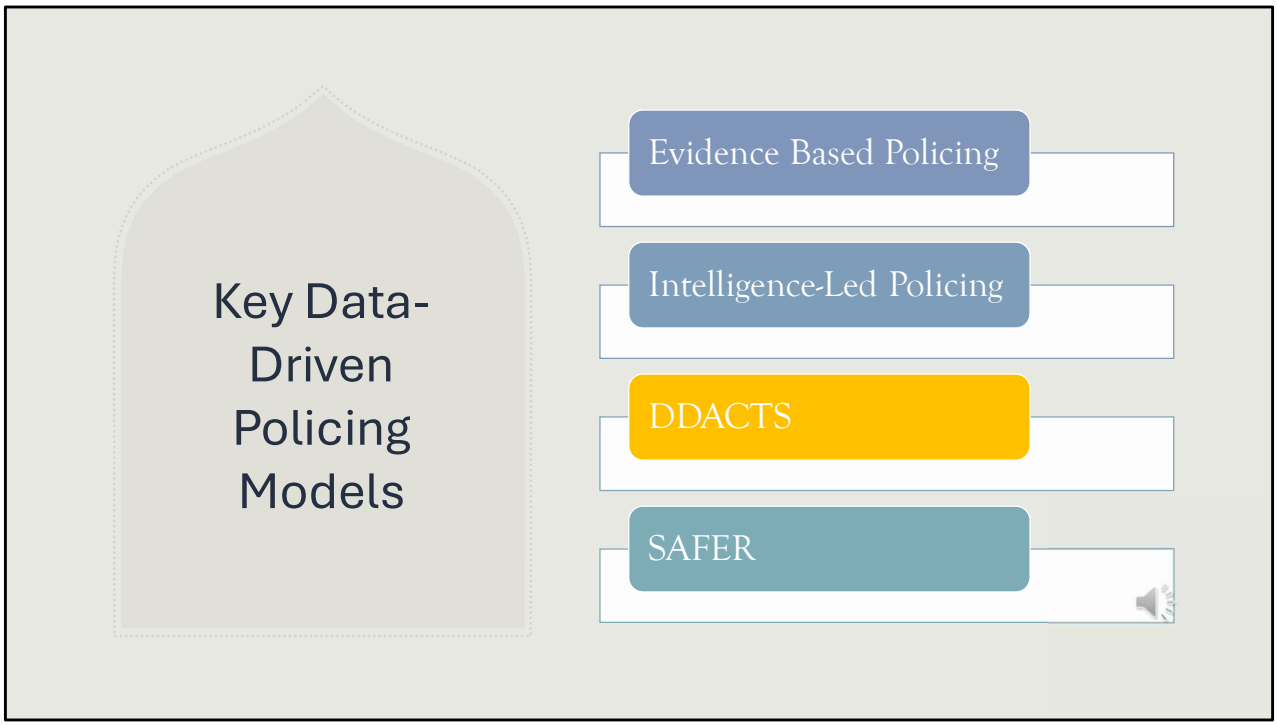


Next, let's look at Intelligence-Led Policing, or ILP. This approach focuses on identifying high-priority crime problems using intelligence and analysis, so agencies can direct resources where they'll have the greatest impact.

The main distinction with ILP is its proactive approach—it's about gathering, analyzing, and sharing criminal intelligence to predict and prevent crime before it happens. Instead of simply responding to incidents, ILP helps law enforcement get ahead by identifying potential threats in advance.

ILP specifically aims at identifying key individuals or criminal enterprises that pose a significant risk to public safety, often emphasizing organized crime networks or repeat offenders. For example, an agency might use ILP to track patterns of gang activity in a city. By analyzing data from local incidents, tips, and previous investigations, officers could identify hotspots and key players within the gang network, allowing them to intervene before violence escalates.

Implementing ILP relies on collaboration among agencies and on channeling resources based on actionable intelligence gathered from multiple sources. By drawing from a range of information, ILP equips agencies to understand and disrupt criminal operations, improving public safety through informed, preventive action.

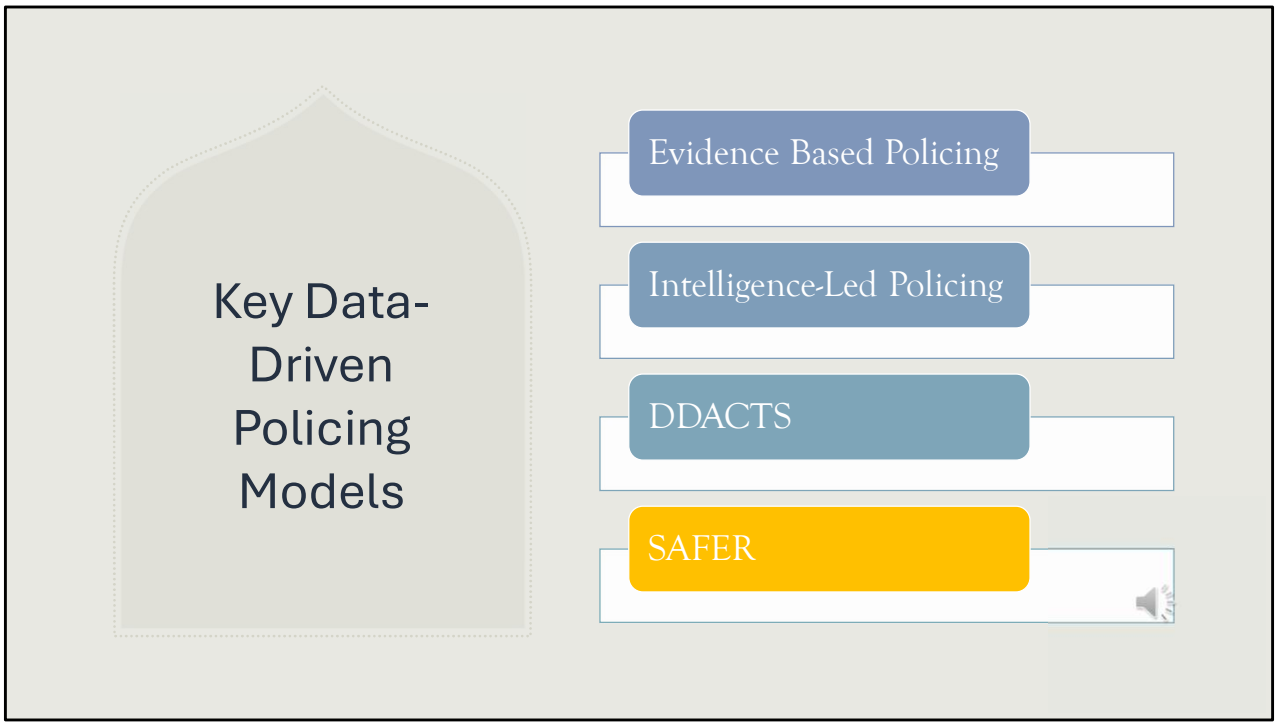


Now let's explore Data-Driven Approaches to Crime and Traffic Safety, or DDACTS. This model uses data analysis to directly inform policing strategies, with a dual focus on crime and traffic safety.

DDACTS stands out because it integrates both crime and traffic crash data. By analyzing where and when incidents occur, agencies can identify specific hotspots that warrant targeted intervention. This approach is highly efficient—it directs resources to high-risk areas at high-risk times, ensuring that efforts are focused where they're needed most.

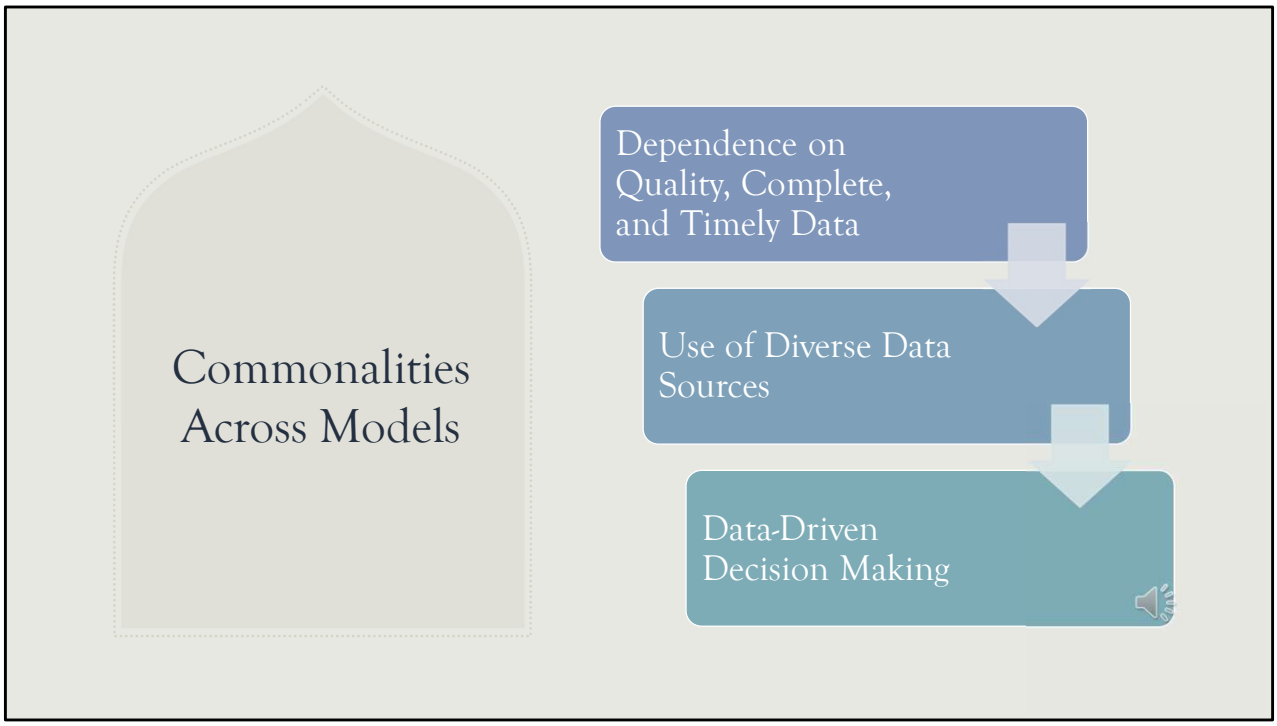
The focus of DDACTS is unique because it combines crime reduction with traffic safety in a single, unified strategy. For example, if data reveals that certain intersections are both high-crime areas and frequent sites for traffic accidents, DDACTS would prioritize police presence there to address both issues at once.

Implementation relies on data-driven maps and patterns, showing where crime and traffic problems intersect. This visual, evidence-based approach allows agencies to strategically deploy resources, maximizing impact in areas with overlapping crime and traffic concerns. Through DDACTS, agencies can address two public safety priorities simultaneously, making communities safer and operations more efficient.



Our final model, **SAFER**—or **Strategic Analysis for Focused Engagement with Results**—represents an evolution of the DDACTS model. While DDACTS focuses on reducing crime and traffic incidents through data-driven hotspot analysis, SAFER takes this approach further by integrating **community engagement** as a core element. SAFER maintains DDACTS' commitment to data-driven strategies but emphasizes a **collaborative approach** to both crime reduction and traffic safety.

This evolution reflects a shift towards addressing safety through a **shared, community-based framework**. SAFER uses data analysis to target specific issues, like crime and traffic, but also prioritizes building relationships and trust within the community. By involving community members and stakeholders in the decision-making process, SAFER develops solutions that are both responsive and sustainable.

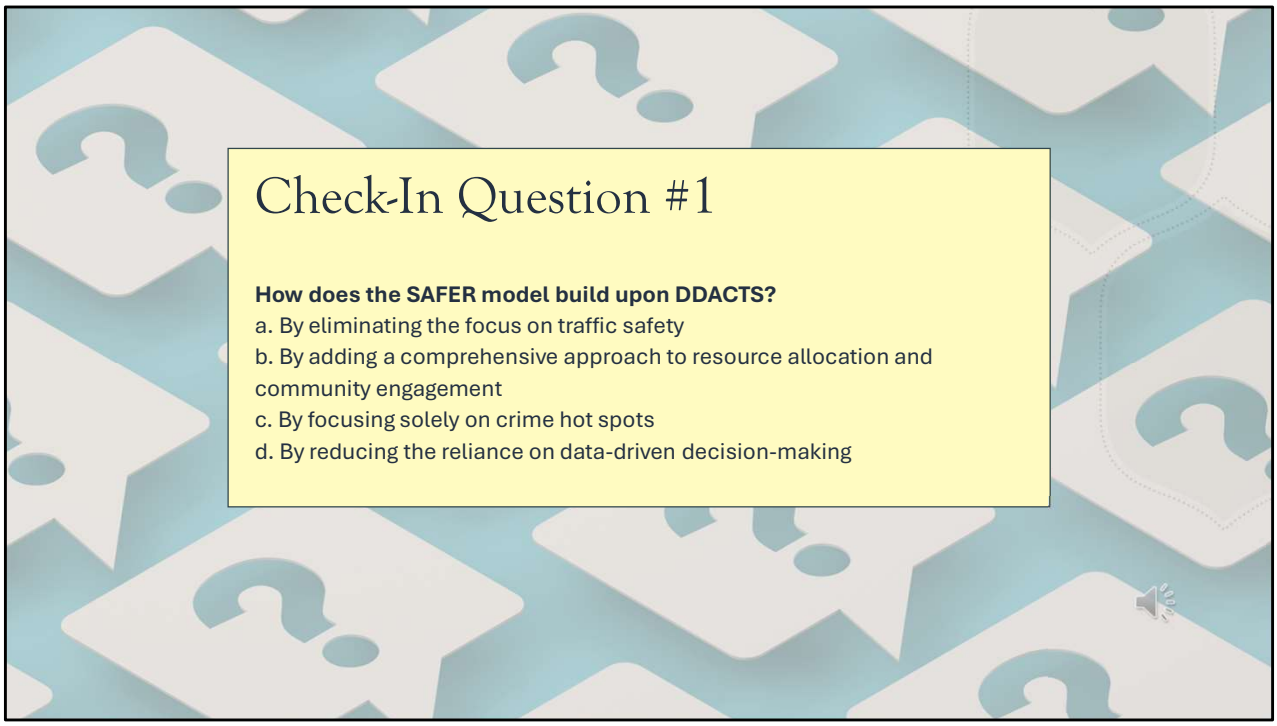


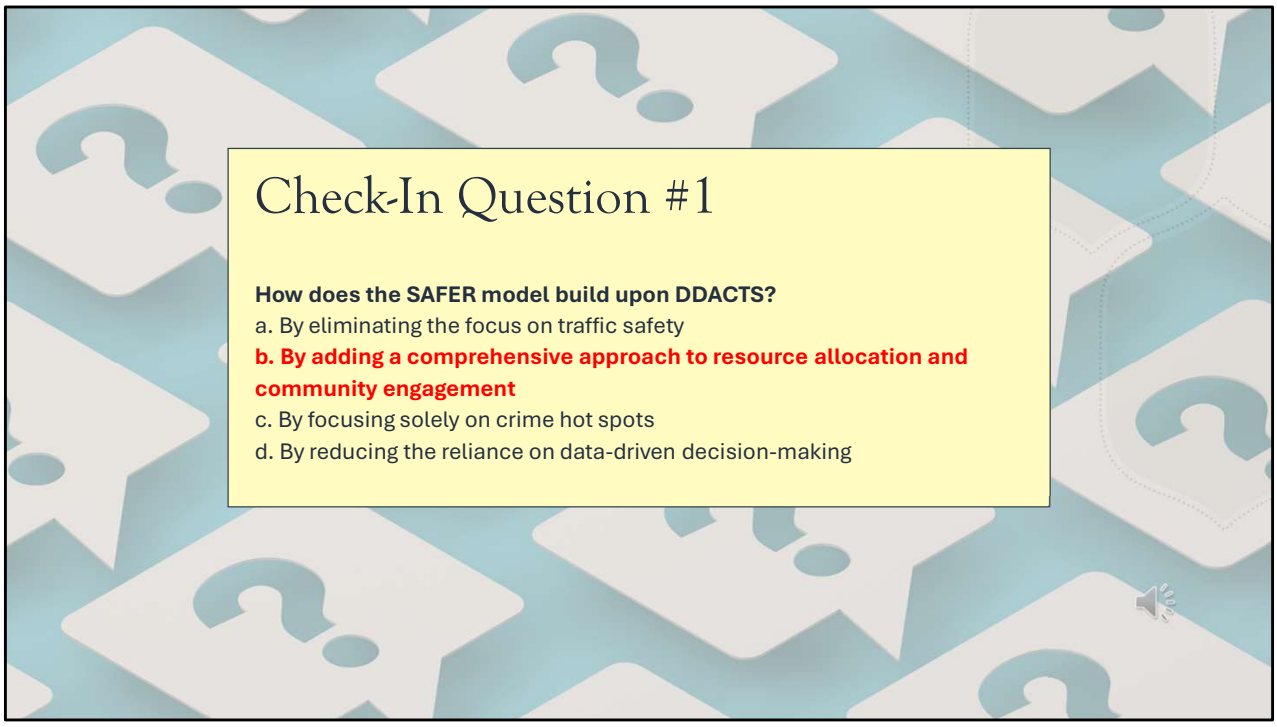
Commonalities Across Models:
All four models—**Evidence-Based Policing (EBP)**, **Intelligence-Led Policing (ILP)**, **DDACTS**, and **SAFER**—share key principles that make them highly effective in addressing public safety challenges:

1. **Dependence on Quality, Complete, and Timely Data**: Each model relies heavily on **accurate** and **complete** data to guide decision-making. Whether it's crime reports, traffic data, or community feedback, the models depend on **real-time, reliable** information to identify problems and evaluate interventions.
2. **Use of Diverse Data Sources**: To be effective, these models draw on a **wide variety of data sources**. This can include **crime data**, **traffic crash reports**, **community input**, **intelligence reports**, and even **social media**. The integration of diverse data sources ensures a comprehensive understanding of public safety issues and helps tailor responses to local needs.
3. **Data-Driven Decision Making**: All four models are driven by **data analysis**, ensuring that law enforcement agencies can pinpoint exactly where interventions are needed. Whether it's identifying crime hotspots or high-risk traffic zones, these models allow agencies to allocate resources **strategically** and **efficiently**, enhancing both crime prevention and traffic safety efforts.

To summarize, each model provides a distinct approach: **EBP** relies on scientific research; **ILP** focuses on intelligence-led prevention; **DDACTS** integrates crime and traffic data; and **SAFER** advances this by combining data analysis with community partnership for lasting safety. **SAFER** represents the next step in holistic crime and crash reduction strategies—building on the strengths of its predecessors while prioritizing collaboration and community involvement.

We are now going to dive into the **evolution of DDACTS into SAFER**.


Check-In Question #1
How does the SAFER model build upon DDACTS?
a. By eliminating the focus on traffic safety
b. By adding a comprehensive approach to resource allocation and community engagement
c. By focusing solely on crime hot spots
d. By reducing the reliance on data-driven decision-making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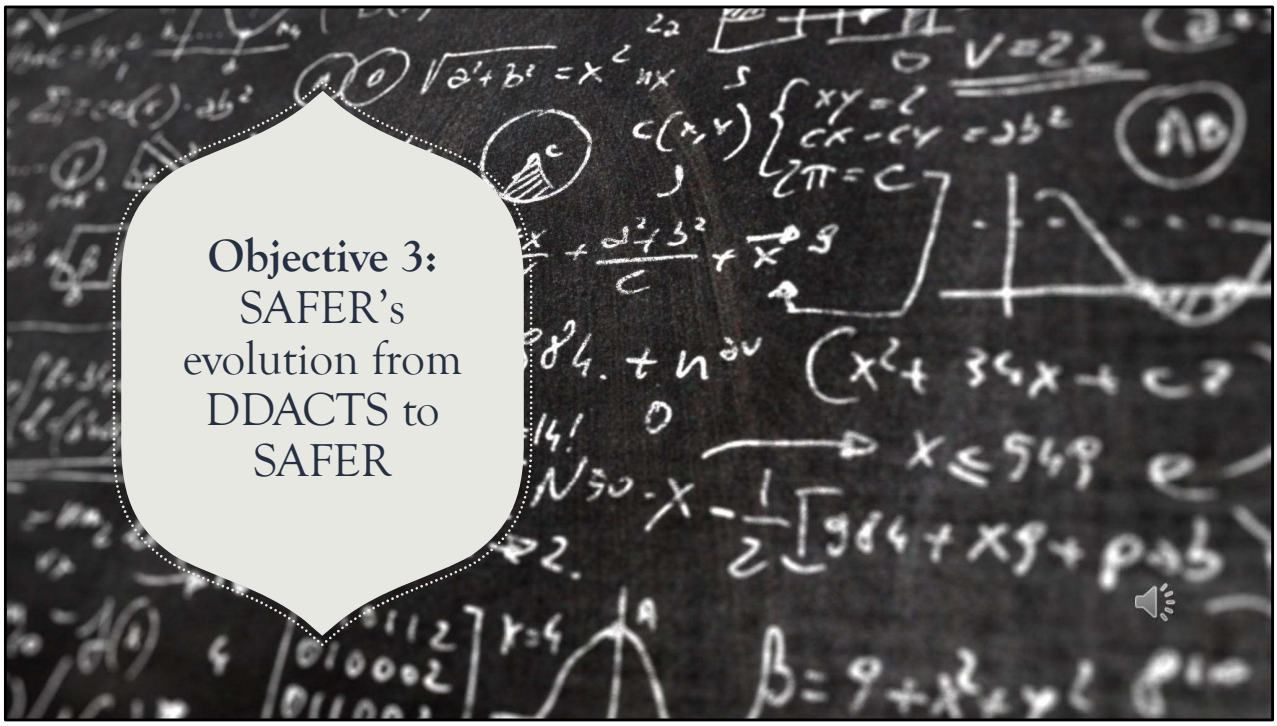
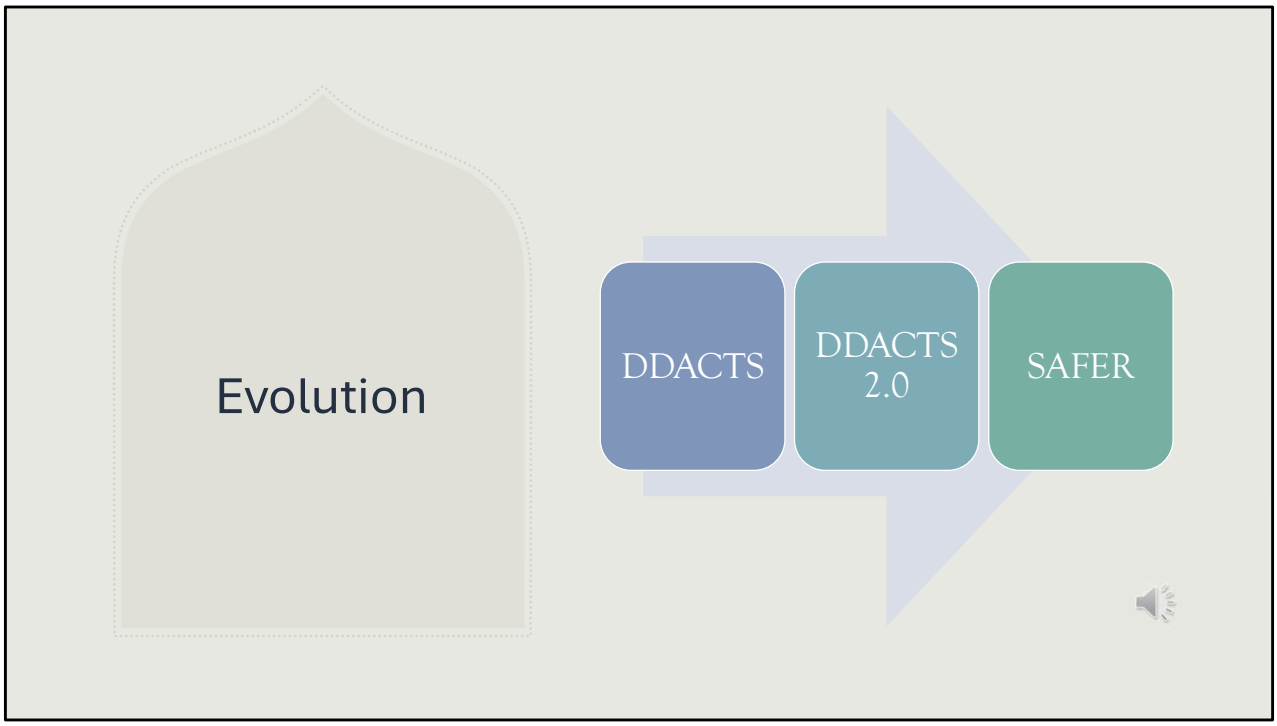


Objective 3: Describe the evolution of the SAFER model.



In 2009, the **National Highway Traffic Safety Administration (NHTSA)** introduced the DDACTS model, which focused on using data to improve crime control and traffic safety. Since its inception, DDACTS and its seven guiding principles have continuously evolved to better align with current academic research, policing best practices, and community needs—especially those expressed in the **Task Force on 21st Century Policing** recommendations.

The **Strategic Analysis for Focused Engagement with Results (SAFER)** model represents the next step in this evolution. SAFER builds upon the foundation of **DDACTS 2.0** by integrating more **strategic analysis** and **community engagement** into its crime and crash reduction efforts.

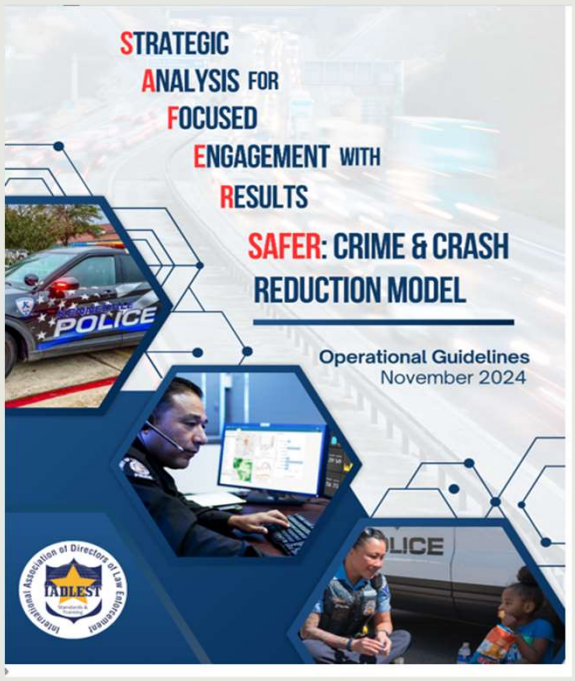
While DDACTS focused on **data-driven deployment** of resources to reduce crime and crashes, SAFER takes a more holistic approach. It not only identifies **crime hot spots** and **high crash locations** but also looks at the **environmental**, **structural**, and **conditional factors** that contribute to crime. Through focused engagement, SAFER brings law enforcement and community members together to address these underlying factors, solve chronic problems, and deploy tailored, effective tactics.

One of the unique advantages of SAFER is that it allows agencies to simultaneously

reduce **both crime and traffic crashes** in the same targeted areas. This dual approach significantly minimizes **social harm** by addressing both issues at once.

The SAFER model also emphasizes the importance of **community collaboration**, drawing from the knowledge that **motor vehicles** often play a role in crimes and crashes. The **visibility of police engagement**, combined with community collaboration, serves as a deterrent, helping to reduce both crime and traffic incidents.

By building partnerships with citizens, businesses, and other community organizations, SAFER fosters a strong sense of **community trust** and **accountability**. Its focus on transparency and collaborative problem-solving helps **build legitimacy** and strengthens the relationship between police and the communities they serve, ultimately improving the overall quality of life.



The SAFER (Strategic Analysis for Focused Engagement with Results: Crime and Crash Reduction) model, developed by the International Association of Directors of Law Enforcement Standards and Training (IADLEST) and supported by the Texas Department of Transportation (TxDOT), integrates location-based crime and crash data to create long-term strategies for reducing social harms. It builds on the earlier DDACTS 2.0 model, initially supported by the National Highway Traffic Safety Administration (NHTSA). IADLEST offers a variety of resources, including workshops, literature, webinars, and training, to help law enforcement agencies implement data-driven models like SAFER for more effective crime and traffic safety analysis and deployment.

What the **SAFER** model is and is not

What SAFER Is:	What SAFER Is Not:
• SAFER is a **philosophy** that data-driven techniques, properly implemented, can reduce crime, crashes, and other social harms.	• SAFER is not a single **model**; it is, rather, a process by which an organization creates one or more models.
• SAFER is a **set of approaches** that emphasize analysis-driven effectiveness and efficiency in the use of police and community resources to address multiple social harms.	• SAFER is not a **tactic** or **strategy**; it can incorporate a large number of tactics and strategies.
• SAFER is a **project area** for the International Association of Directors of Law Enforcement Standards and Training (IADLEST), as funded by the Texas Department of Transportation (TxDOT).	• SAFER is not just about **police enforcement**. Although enforcement may take a role in a SAFER model, a good model also includes an emphasis on positive citizen contacts coordinated with prevention and problem-solving approaches.
• SAFER is a series of **workshops** and other training sessions at which police agencies come to learn better techniques and to craft their models for data, analysis, response, and evaluation.	• SAFER is not just about **overlapping hot spots**. Although agencies participating in the program often emphasize enforcement at locations where crime and traffic issues correspond, this is only one of many ways to synthesize analysis and enforcement.

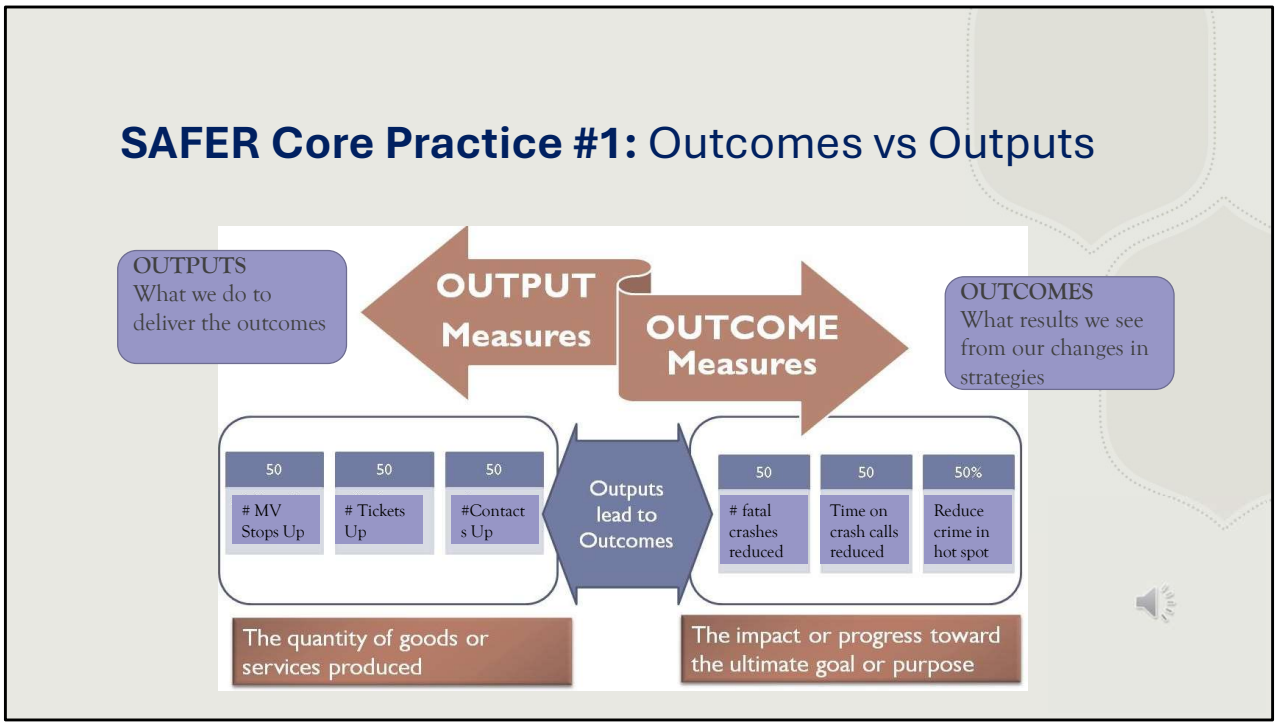
Only Model that Addresses Crime **AND** Crashes

SAFER is an operational paradigm that encourages the analysis of data to help police reduce social harms--primarily crime and traffic crashes. It is the only policing model that addresses **crash** and **crime.** It is an evolution of the former Data-Driven Approaches to Crime and Traffic Safety (DDACTS) 2.0 model with a reduced emphasis on purely enforcement strategies and a greater emphasis on community engagement. These are some of its characteristics:

- SAFER is **place-based.** It calls for the analysis of streets, intersections, neighborhoods, and other discrete locations where crime, crashes, and disorder cluster in numbers greater than in the rest of the community. As such, it draws upon the literature and lessons of hot spot policing and the NHTSA DDACTS 2.0 model.
- SAFER demands a level of **community engagement**. Members of the residential and business community should be consulted, informed, and allowed to participate in prioritization of problems, designation of focus areas, and setting the balance between prevention and enforcement tactics. SAFER should never be imposed upon an unwilling community.
- Identifying SAFER areas of high activity (hot spots) is not necessarily as simple as mapping crime and crashes and looking for areas of overlap. The key to SAFER is to **use analysis to drive strategic, operational responses intended to address**

multiple issues. This can be easier when the areas of activity overlap, but there are ways to create this synthesis even when the hot spots occur some distance apart.

- SAFER strategies are most easily applied toward **crimes and disorder incidents that can be affected by patrol-based strategies**, such as thefts from vehicles, burglary, street robbery, vandalism, youth disorder, street prostitution, and open-air drug markets.
- A cornerstone of SAFER is **highly-visible engagement**, meant to suppress crime and crashes, deter offenses, identify suspects, gather intelligence, and educate the community.
- Beyond visible police presence, SAFER supports a **wide variety of tactics and strategies**. SAFE encourages problem-oriented solutions, community-based problem-solving, traffic engineering, community education, and situational crime prevention strategies.
- As such, SAFER is **compatible with most progressive policing models**, including precision policing, problem-oriented policing, intelligence-led policing, community policing, Crime Prevention through Environmental Design (CPTED), and "broken windows" approaches.
- SAFER also works well with **CompStat**. CompStat serves as a natural mechanism to review analysis, determine responses, monitor results, and evaluate long-term operations.



Welcome to the first guiding principle of the SAFER model: **Outcomes over Outputs**. This principle emphasizes measuring results rather than just counting activities. In the SAFER model, agencies are encouraged to set clear, specific goals for reducing crime and crashes, then evaluate success based on the actual outcomes, such as reductions in fatalities, crime rates, or traffic violations, instead of just counting outputs like citations, arrests, or patrol hours.

Shifting from tracking activities to measuring outcomes requires a change in approach. Instead of focusing on enforcement actions, success is defined by the long-term impacts, such as improving community safety and reducing social harm.

Key outcome measures to track include citizen calls for service, traffic crashes, violent crimes, gang violence, and opioid-related incidents. Organizational outcomes to consider include efficient use of resources, increased cooperation, community support, and stronger justification for future funding.

For successful implementation, agencies should identify areas for monitoring, develop clear outcome measures, and assign responsibilities for tracking. Engage both staff and community partners in this process to ensure your efforts are making a meaningful difference in community well-being.

2. ***Data collection***. Data is the foundation for successful implementation of the SAFER model. It drives decisions about where, when, and how to engage the community and deploy resources effectively. The key is gathering quality, timely, and accessible data to guide the analysis of crime, crashes, calls for service, and police activity. In this section, we'll explore the necessary steps for ensuring your agency's data collection system is ready to support SAFER. Let's focus on three key areas of data collection for SAFER implementation.

First, **review your current data collection and analysis systems**. Take a close look at your existing systems—whether it's your CAD, RMS, or other data management tools—and assess how well they are working for you. Are there gaps? Are there systems that aren't integrating well with each other? This step is crucial to understanding your starting point. Know where to find your incident data, call data, and other data sources that will contribute to a higher quality of analysis.

Access to your data is key.

This article explains why "Modern Crime Analysis. (2022, September). *For @#$&'s sake, just give me the data*. http://moderncrimeanalysis.blogspot.com/2022/09/for-sake-just-give-me-data.html". This article emphasizes the critical need for crime analysts to have

efficient and reliable access to the data they need. A pristine, accurate, and timely dataset is of little use if it cannot be easily extracted and analyzed. For example, analysts must be able to pull data from systems like CAD and RMS to create meaningful analysis using tools such as mapping programs. Unfortunately, many systems, even though they offer querying and mapping features, are not equipped with the full suite of analytical tools needed for in-depth analysis. This is where technologies like ODBC (Open Data-Based Connectivity) come in, allowing for direct connection to databases and data extraction, which is essential for crime analysis.

The article stresses the importance of overcoming fragmented systems and locked-away data to ensure analysts have the access they need. Whether through direct connections, mirror databases, or data warehouses, all steps must be taken to enable organized and secure access to key data. It also suggests working with CAD and RMS vendors or partnering with other agencies to ensure timely data extraction for analysis. By reviewing and modernizing your data systems and ensuring that analysts can access the information they need without barriers, agencies can enhance their ability to identify patterns and make informed decisions, ultimately improving public safety.

In reading this article, you will gain valuable insights into how to overcome data access challenges and empower your crime analysts with the tools they need. You'll learn actionable steps to improve data access and integration, which will lead to more accurate, real-time insights that drive better decision-making and enhanced law enforcement effectiveness.

Improving data quality and timeliness is essential for law enforcement agencies to make informed decisions and produce actionable crime analysis. When implementing the SAFER model, agencies are presented with the opportunity to conduct a thorough review of their data management systems, focusing on identifying and addressing issues related to the timeliness, accuracy, and completeness of their data. These issues can significantly impact the effectiveness of analysis and ultimately affect community safety.

Common data quality problems include inaccurate coding of crimes and crashes, incorrect reporting of dates and times (with systems often defaulting to reporting times instead of occurrence times), misreporting of locations (such as using the police department or hospital address instead of the actual crime scene location), misidentification or duplication of persons involved, and missing or incomplete qualitative data fields that could provide key insights into the modus operandi or causal elements of crimes. Additionally, delays in completing, reviewing, and approving reports can further hinder the quality of data available for analysis.

To solve these issues, agencies must take a comprehensive approach, involving a combination of training, policy adjustments, and supervisory oversight. Start by convening a working group that includes those who are directly involved in data

collection and use—commanders, officers, telecommunicators, analysts, records personnel, and IT staff. Together, they can identify and address obstacles to timely and accurate data entry and review.

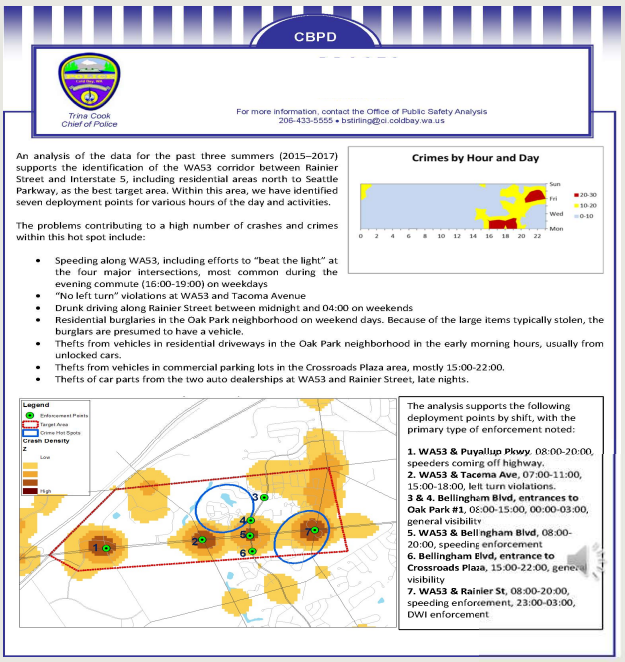
A key action is to pay close attention to the accuracy of incident locations and the associated geographic coordinates. These elements are vital for mapping, hotspot identification, and understanding the patterns of criminal activity. It's important to recognize that data collection begins when a call for service is received and continues through the officer's initial response, investigative follow-ups, and the case's final disposition. Analysts depend on data collected throughout the entire process, and poor-quality, incomplete, or untimely data can undermine the analysis.

Additionally, consider incorporating policies that emphasize the importance of report review and approval as part of improving data quality. Supervisors should be made aware that their role in ensuring accurate, complete data is critical—not only for analysis but also to ensure that officers are responding appropriately to incidents. Regular, targeted training—whether through brief memos, roll-call briefings, or virtual platforms—can be used to address specific data quality issues and reinforce the importance of accurate data collection.

By consistently working on improving the quality of data from its source, agencies can ensure that analysts have a solid foundation on which to build meaningful, actionable analysis that will ultimately contribute to reducing crime and enhancing public safety

In Parts 2 and 3, we will focus in on data accessibility methods as well as data quality improvement planning.

SAFER
Core Practice
#3 Data
Analysis



3. ***Data analysis***. The heart of the SAFER initiative lies in comprehensive, quality-driven analysis of crime and crash data. This involves not just identifying activity clusters or "hot spots," but thoroughly examining the underlying temporal, offender, victim, and environmental factors. A thorough data analysis helps identify patterns and causal factors, directing targeted enforcement strategies. Key to this process is the use of advanced mapping techniques, allowing agencies to visually represent hot spots, patterns, and correlations, which can guide effective interventions.

The analysis process should begin with selecting the appropriate software tools, such as GIS applications, data querying tools, and statistical analysis platforms. A consistent, clear process for analyzing data ensures reliability and accuracy, enabling agencies to focus on areas of highest need. Proper training for analysts is essential to ensure they can effectively use these tools to their full potential. Training in mapping, data querying, and hot spot identification is essential for analysts, whether they are part-time, full-time, or from external resources.

Identifying the right hot spots for intervention is a crucial step in the SAFER model. This process requires combining data on crime, crashes, calls for service, and officer activity to map geographic areas with the highest concentrations of incidents. The goal is to pinpoint small, manageable areas where enforcement can have the most significant

impact. By continuously monitoring and adjusting strategies based on real-time data, SAFER initiatives can maintain a focused, data-driven approach, ensuring the most effective use of law enforcement resources in reducing crime and enhancing public safety.

4. ***Community collaboration***. Community collaboration is a critical element of the SAFER model. Successful implementation of SAFER relies on the active support and involvement of the communities most affected by crime and crashes. This is especially true for disadvantaged areas, where increased police presence can sometimes be perceived as more of an occupying force rather than a protective one. Therefore, community engagement is key to ensuring that the approach is both effective and well-received.

To build trust and ensure the success of SAFER, law enforcement agencies must engage the community early in the process. This includes listening to diverse perspectives and incorporating community feedback into strategy development. It's important to involve residents and local businesses in creating solutions that are supported by the community, fostering a sense of ownership and collaboration.

A transparent process is essential—keeping the community informed throughout both the development and implementation stages is crucial for long-term success. Agencies can also leverage local knowledge and assets to further reduce crime and traffic incidents, as community members often have unique insights and tools to address issues that police may not have. Involving the community in this way leads to more sustainable solutions, ensures that interventions are well-targeted, and helps build

stronger, safer neighborhoods.

EXAMPLE
An example of successful community collaboration in the SAFER model can be seen in a project conducted by a police department in a high-crime, high-traffic area. The department identified a particular neighborhood with frequent accidents and violent crimes. Instead of deploying officers to the area without community consultation, the department first held a series of community meetings with local residents, business owners, and community leaders.

Through these meetings, residents shared concerns about speeding vehicles and the presence of drug-related crimes, while business owners highlighted issues with loitering and vandalism. Based on these discussions, the police worked with community members to develop a plan that included not only increased patrols in specific areas but also the installation of speed bumps, better street lighting, and a community-led neighborhood watch program.

The community felt heard and involved in the process, and as a result, the initiative gained significant local support. Over time, crime and traffic accidents in the area dropped, and the department was able to maintain a strong partnership with the community, making the SAFER initiative not just about enforcement but also about building trust and shared responsibility for public safety.

SAFER
Core Practice
#5 Strategic
Operations

5. ***Strategic operations***. **Strategic operations** are the next critical step in the SAFER model. After data analysis has identified hot spots and community input has shaped intervention plans, it's time to develop and execute strategic responses to address crime and crash issues. These responses should be both proactive and reactive, combining law enforcement presence with community-focused interventions.

The first step in strategic operations is identifying the most effective strategies and tactics. This may include increasing police visibility, conducting targeted traffic enforcement, or implementing Crime Prevention Through Environmental Design (CPTED) principles. For example, improving lighting in high-crime areas or modifying street layouts to slow traffic can be part of the solution.

Agencies should then develop both short-term and long-term operational plans. Short-term plans may focus on immediate interventions—such as saturating a specific area with officers to address a surge in criminal activity. Long-term plans could involve systemic changes, such as road redesigns or community education campaigns to maintain safety improvements over time.

Finally, successful implementation requires strong coordination and follow-through. Whether it's directing officers to patrol high-risk zones, installing signage to alert drivers,

or collaborating with city agencies to enhance environmental safety, strategic operations must be fluid and adaptable. By combining law enforcement tactics with community and environmental strategies, the SAFER model can significantly reduce both crime and traffic incidents.

Notably, this model, first created in 2009 by the National Highway Traffic Safety Administration (NHTSA) and supported by numerous national partners, acknowledges the critical nexus between crime and crashes. Over 815 agencies across the U.S. and U.S. Virgin Islands attended DDACTS implementation workshops from 2011 to 2023, with 95 additional agencies in Texas receiving continued support from the Texas Department of Transportation (TxDOT). This collaborative effort underscores the broad commitment to reducing both crime and crashes through data-driven strategies.

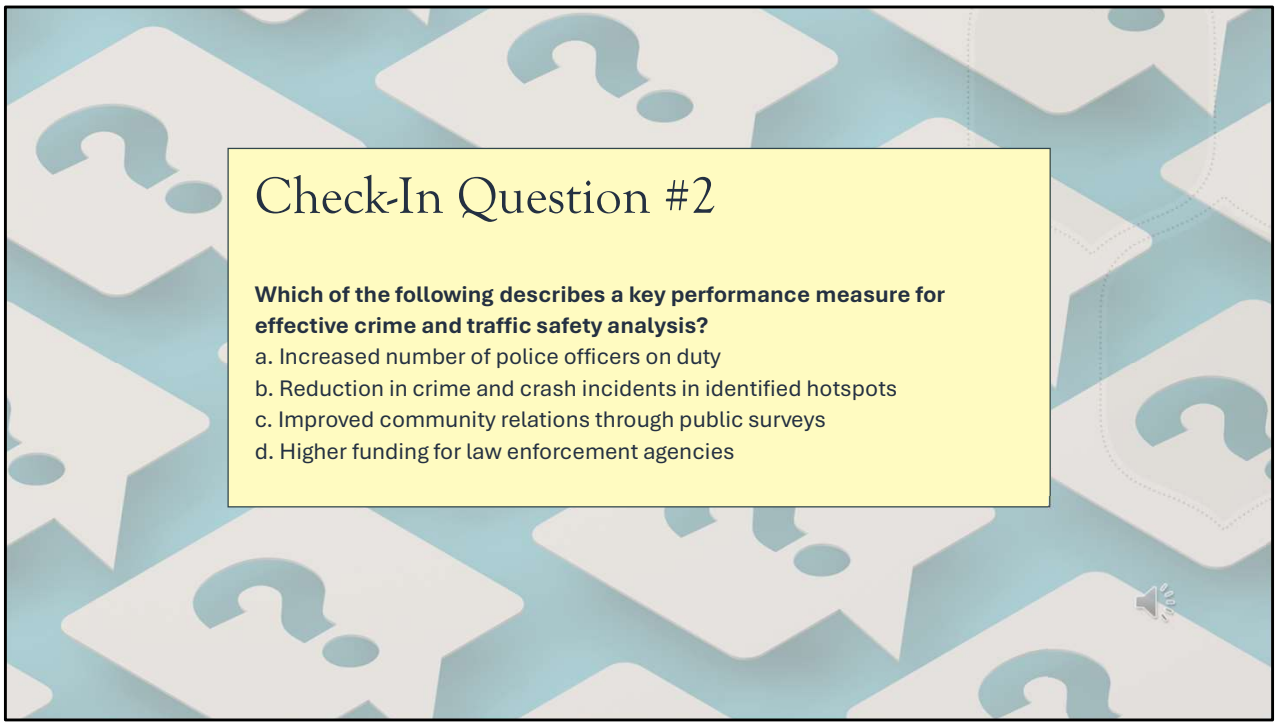
SAFER Core Practice #6:
Information Sharing and Outreach

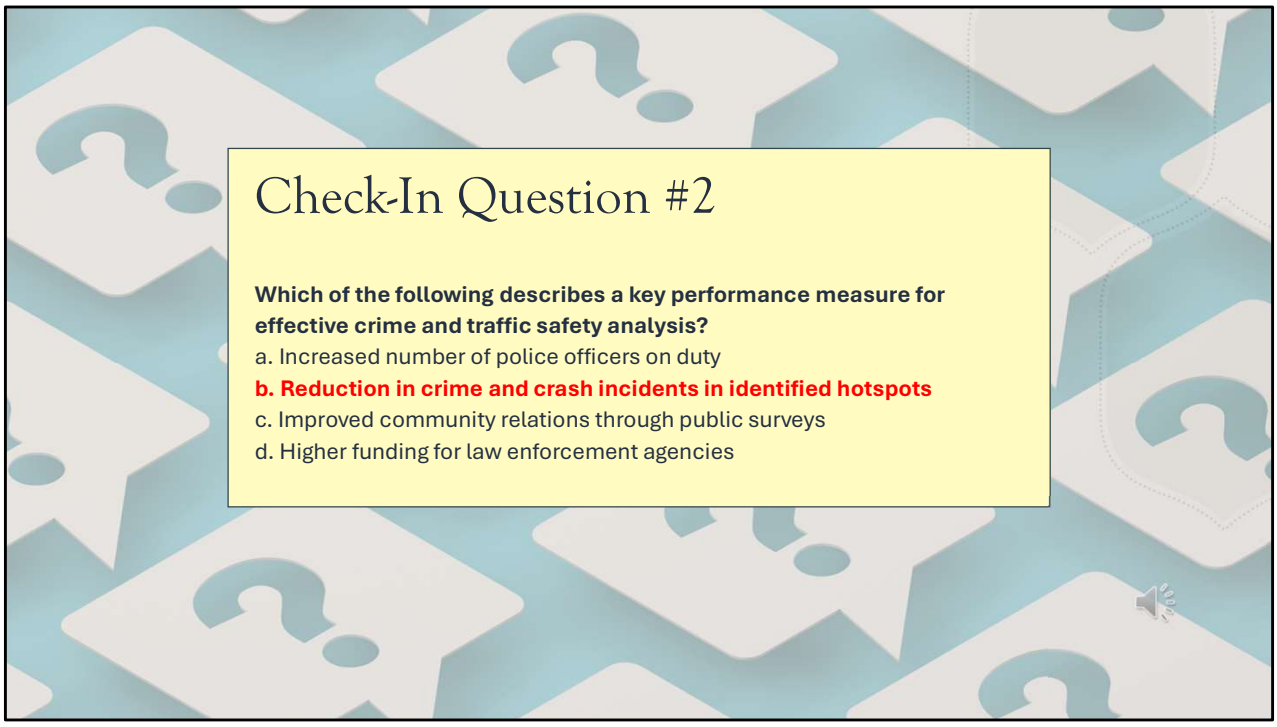
6. ***Information sharing and outreach***. **Core Practice VI: Information Sharing and Outreach** emphasizes the importance of community engagement within the SAFER model. Information sharing is not just a one-way communication channel; it is a dynamic, ongoing process where law enforcement agencies not only share their progress but also actively seek feedback from the community. This approach helps maintain transparency, build trust, and foster collaboration between law enforcement and the community.

The primary goal of this practice is to ensure the community understands the objective, data-driven nature of SAFER. By relying on data to guide decision-making, law enforcement can communicate an unbiased approach to addressing crime and traffic safety. Sharing this information not only increases support for SAFER initiatives but also helps community members see how their input shapes law enforcement strategies.

During roll calls or daily briefings, agencies should use visual aids, such as laminated maps or roll call TVs, to highlight current crime and crash hotspots. At the end of each briefing, the key question should be: “Do the officers clearly understand where they should focus their time and efforts?” This ensures that law enforcement personnel are consistently aligned with strategic, data-driven objectives.

Effective communication through both traditional and social media is crucial for keeping the public informed about SAFER's impact on crime reduction and traffic safety. The agency's public information officer should work closely with data analysts to develop a strategic communications plan, ensuring the message is clear, consistent, and widely distributed. This includes crafting accurate messages that outline SAFER's goals, objectives, and results, while using social media to share real-time updates that often act as a press release for traditional media outlets. Additionally, agencies should develop background information for the media, including community quotes and addressing concerns like crime displacement or traffic safety. Social media can also be used to promote public engagement initiatives such as "Coffee with a Cop" or DUI checkpoints. To maintain control over sensitive content, a small, trusted team should manage social media accounts. By effectively sharing information and engaging with the community, law enforcement can increase transparency, garner support, and ensure SAFER's long-term success.


Check-In Question #2
Which of the following describes a key performance measure for effective crime and traffic safety analysis?
a. Increased number of police officers on duty
b. Reduction in crime and crash incidents in identified hotspots
c. Improved community relations through public surveys
d. Higher funding for law enforcement agencies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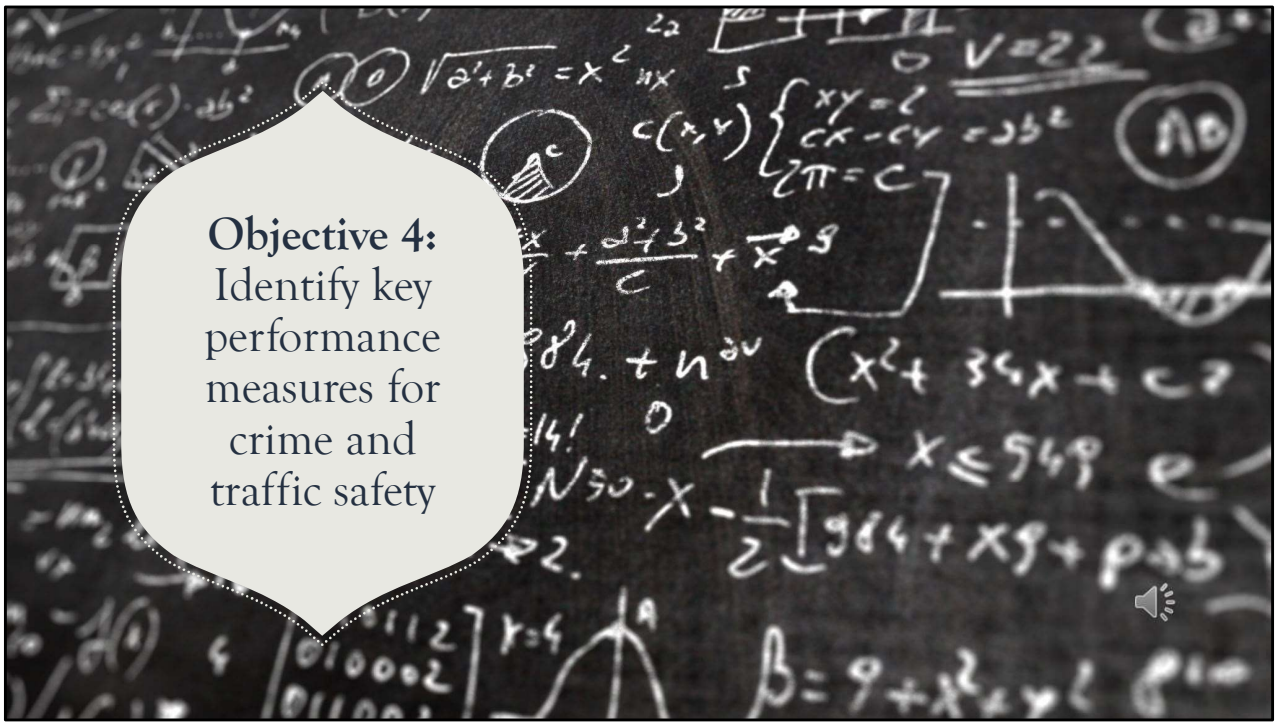
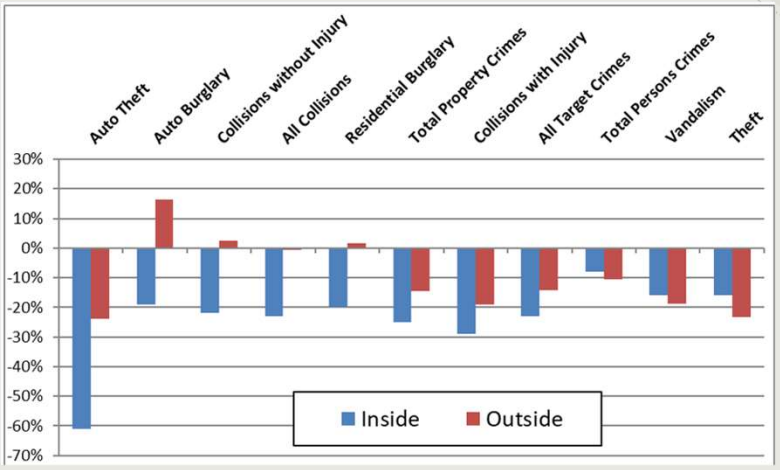


Objective 4: Identify key performance measures for crime and traffic safety analyses.

SAFER Core Practice #7:
Monitor, Evaluate, Adjust



7. ***Monitor, evaluate, and adjust***. The **Strategic SAFER evaluation** is a simple yet effective method for assessing crime reduction strategies. It focuses on determining if there was a statistically significant decrease in crimes or crashes within a target area. While the process is straightforward, it requires data analysis and statistical methods, which may benefit from external expertise.

Key Evaluation Questions:
1.How does activity during the SAFER period compare to normal levels?
2.How do changes in the focus area compare to control areas?
3.Does the intensity of engagement correlate with reductions?
4.Is there evidence of displacement or diffusion of benefits?

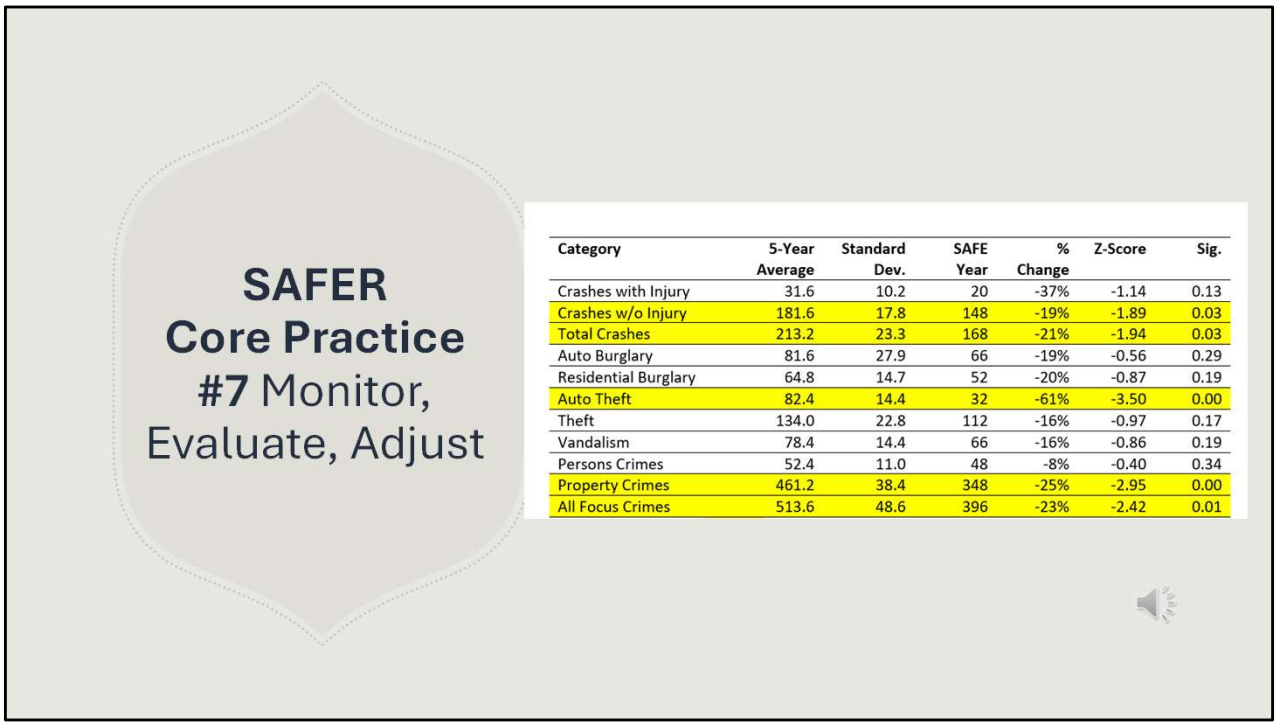
Methodology:
•**Question 1**: Compare current data to a 3-5-year average for the same period. Use percentage changes or z-scores.
•**Question 2**: Compare changes in the focus area to control areas (areas without additional engagement).
•**Question 3**: Correlate activity metrics (e.g., arrests, citations) with observed reductions.
•**Question 4**: Analyze for any displacement (geographically, temporally, or by crime

type).

Continuous Monitoring and Adjustment:
•**Monitor**: Track ongoing police activities such as patrols, arrests, and citations.
•**Evaluate**: Regularly apply an evaluation model to assess success.
•**Adjust**: Use evaluation results to refine field operations.

Additional Recommendations:
•**Regular Meetings**: Hold consistent operational reviews.
•**Standard Process**: Develop a reliable monitoring and evaluation system.
•**Document and Report**: Keep detailed records and share findings with stakeholders.

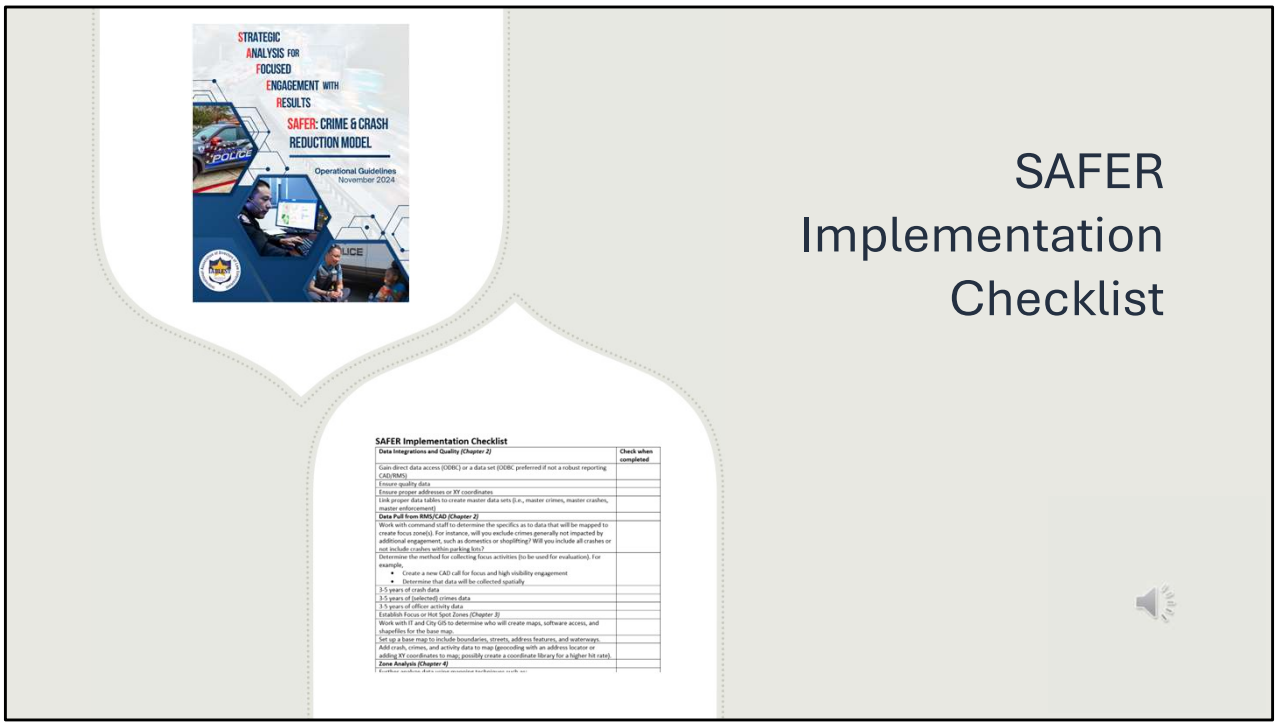
By continuously evaluating and adjusting based on data, agencies can optimize their crime reduction efforts and improve overall effectiveness.



Category	5-Year Average	Standard Dev.	SAFE Year	% Change	Z-Score	Sig.
Crashes with Injury	31.6	10.2	20	-37%	-1.14	0.13
Crashes w/o Injury	181.6	17.8	148	-19%	-1.89	0.03
Total Crashes	213.2	23.3	168	-21%	-1.94	0.03
Auto Burglary	81.6	27.9	66	-19%	-0.56	0.29
Residential Burglary	64.8	14.7	52	-20%	-0.87	0.19
Auto Theft	82.4	14.4	32	-61%	-3.50	0.00
Theft	134.0	22.8	112	-16%	-0.97	0.17
Vandalism	78.4	14.4	66	-16%	-0.86	0.19
Persons Crimes	52.4	11.0	48	-8%	-0.40	0.34
Property Crimes	461.2	38.4	348	-25%	-2.95	0.00
All Focus Crimes	513.6	48.6	396	-23%	-2.42	0.01

7. ***Monitor, evaluate, and adjust***. Finally, when reporting the results of the evaluation, be sure to include the actual figures (average, current totals) along with the percentage or z-score changes. Including the raw numbers will remove concerns that large changes are simply the result of small numbers (e.g., a 50% decrease when a category goes from 4 incidents to 2).

We will dive into Threshold Analysis and Z-Scores in Part 5 of this series.

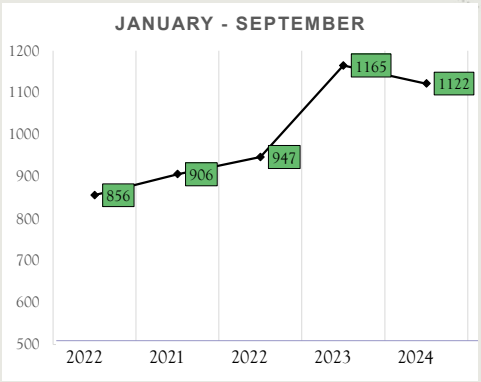


SAFER Implementation Checklist

In the manual *Safer Core Practices*, there is a helpful checklist that analysts can use to guide them through the SAFER implementation process. The checklist includes steps for data integration and quality, establishing focus zones, analyzing crime and traffic data, and evaluating the effectiveness of the strategy. It provides a structured approach, covering everything from data access and mapping to disseminating results and tracking changes in activity. This comprehensive checklist ensures that analysts stay on track and follow best practices throughout the process.

What Can The SAFER Model Do For Your Agency?

DECREASE CRASHES



2024 YTD
(Jan - Sept)

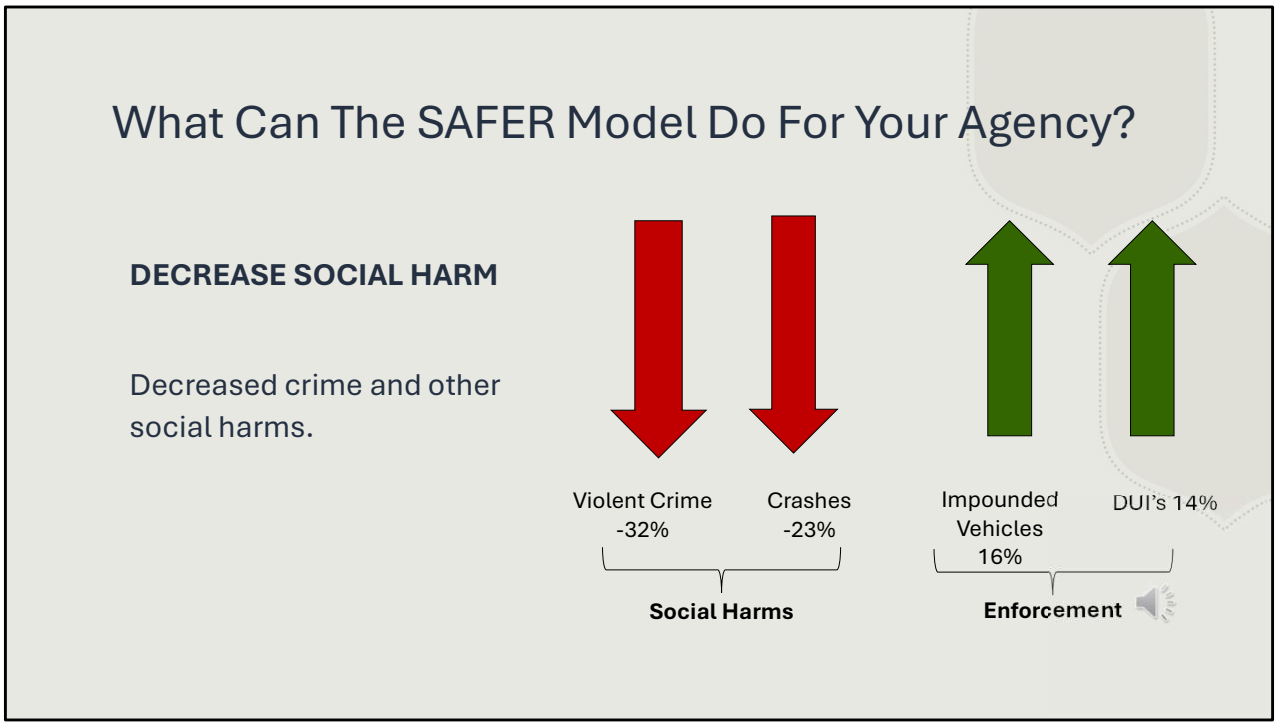
-4%
When compared to the same period in 2023

One of the powerful benefits of a data-driven strategies model is its targeted ability to reduce traffic crashes and enhance road safety in specific high-risk areas. By systematically identifying and focusing on top crash-prone locations, data-driven analysis enables law enforcement agencies to deploy resources precisely where they're needed, yielding significant safety improvements. For instance, by analyzing crash data to pinpoint high-risk intersections, agencies can focus patrols, reinforce traffic laws, and introduce tailored public awareness campaigns that directly address the unique risks of each location.

This targeted approach can lead to impactful outcomes, such as reducing crashes at the top five high-crash intersections or cutting down on pedestrian accidents in crowded, high-foot-traffic areas like school zones, shopping districts, or busy crosswalks. One example of effectiveness is seen in cities where intersections previously plagued by frequent accidents experienced a notable drop in incidents following SAFER's focused interventions. In another case, SAFER reduced pedestrian accidents around schools by pairing increased law enforcement presence with community messaging about safety in crosswalks.

Data-driven strategies also emphasizes continuous monitoring and flexibility, allowing law enforcement to adapt strategies based on real-time data and emerging trends. This

means that agencies can address crash reduction as a dynamic, ongoing goal, with evaluation and adjustments that keep strategies effective and relevant. By using the SAFER model, agencies foster not only safer streets but also public trust, as residents see concrete results in areas where traffic safety is a high priority.



Another significant benefit of the data-driven model is its focus on decreasing social harm, specifically through the reduction of violent crime, crashes, and impaired driving incidents. By targeting high-crime areas and utilizing data-driven strategies, data-driven strategies helps law enforcement proactively address sources of social harm, promoting a safer community environment overall.

For example, in areas with elevated levels of violent crime, data-driven strategies allows agencies to identify hotspots where strategic, high-visibility patrols and community engagement can deter criminal activity. This approach doesn't just address crime after it occurs but works preventively by focusing law enforcement presence and resources on areas most in need. The result is a measurable reduction in violent crime, which translates to safer streets and a community that feels more secure.

Similarly, targeted deployment of resources plays a crucial role in reducing crashes and improving road safety. By analyzing data and concentrating efforts on high-risk intersections or routes with a history of impaired driving incidents, agencies can boost enforcement of traffic laws and conduct sobriety checkpoints in a way that meaningfully addresses unsafe driving behavior. This targeted approach has shown to increase drunk driving arrests, particularly in areas prone to impaired driving, helping to prevent potential crashes and save lives.

Through these focused efforts to decrease violent crime, reduce traffic-related incidents, and curb impaired driving, data-driven efforts directly contributes to lowering social harm across communities. By implementing SAFER, agencies create a safer environment that benefits everyone—residents feel a stronger sense of security, roads become safer for all drivers, and community well-being is strengthened through proactive, data-informed law enforcement.

What Can The SAFER Model Do For Your Agency?

FOCUSED APPROACH

- Maximize time, efforts, resources
- Renews emphasis on traffic safety
- Provides a flexible approach
- Meets CALEA accreditation standards
- Increases agency accountability and productivity
- Focused and highly-visible deterrence

Implementing a targeted approach helps law enforcement maximize time, efforts, and resources, making patrols more efficient and impactful. This method renews emphasis on traffic safety, ensuring a focus on reducing crashes and enforcing safe driving practices in high-risk areas.

The model is flexible, adapting to each agency's unique culture, staffing levels, and supervision structure. This flexibility allows agencies to determine the best deployment strategies for their specific needs. By adopting this approach, agencies can also meet CALEA accreditation standards that focus on crime prevention, effective resource use, and intelligence-led policing.

Accountability and productivity are improved as this approach provides a clear, strategic plan for resource deployment. Stakeholders gain a transparent view of how resources are being used to address community safety needs.

Lastly, targeted, highly-visible patrols allow officers to engage strategically with the community in a way that the public will notice. This visibility not only deters crime but reassures the community of the agency's proactive efforts in maintaining public safety.

What Can The SAFER Model Do For Your Agency?

ADDITIONAL BENEFITS

- Cost effective
- Fewer calls for service
- Enhanced Deterrence
- Increased field contacts
- Reduction in social harm
- Builds stronger relationships with partners

Cost-Effective Resource Deployment
Using data-driven strategies ensures your agency's resources are deployed efficiently and cost-effectively. Rather than having officers "wandering around," this approach allows them to be purposefully assigned to specific locations, maximizing impact.

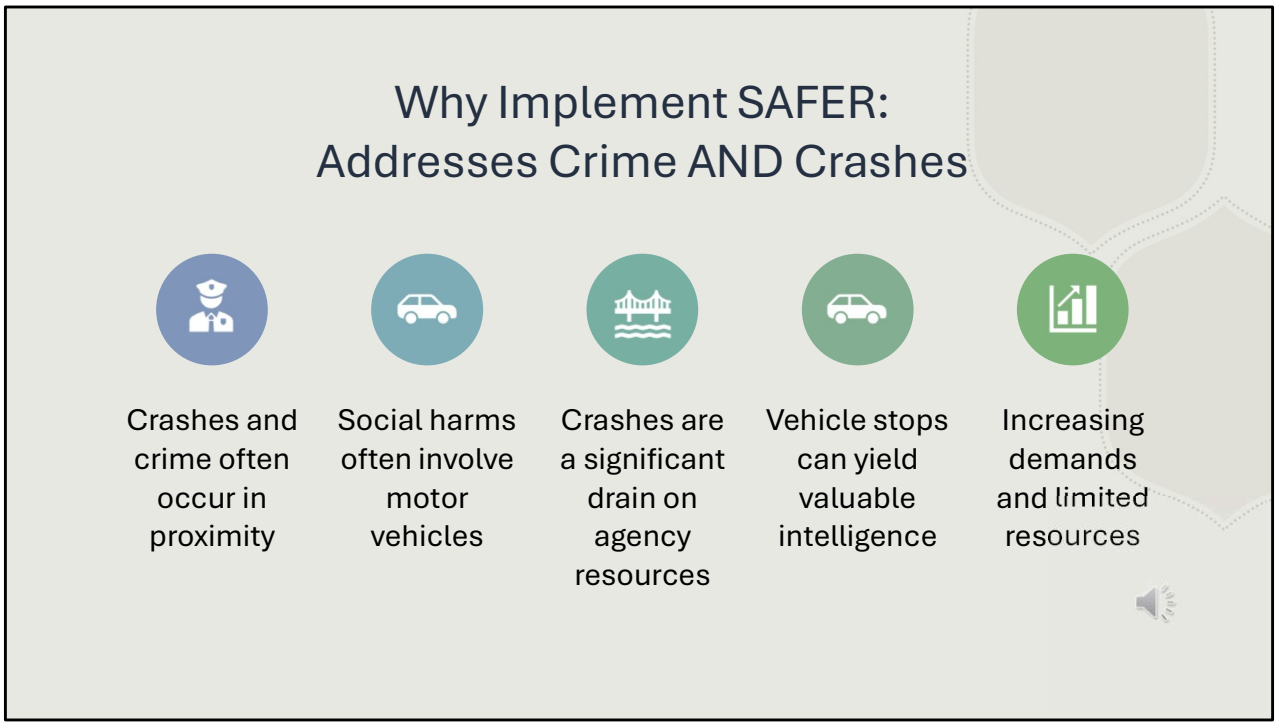
Fewer Calls for Service
With consistent use, data analysis can lead to a reduction in calls for service. By proactively addressing issues in identified hotspots, officers help prevent incidents before they require intervention.

Enhanced Deterrence
Focused deployment in crime-prone areas creates a strong deterrent effect. When officers are visibly present in strategic locations, potential offenders are less likely to engage in criminal activity.

Increased Field Contacts
Officers using data-driven strategies are encouraged to document and share detailed information from every traffic stop and contact, building a valuable information network within the agency that enhances intelligence-sharing and collaboration.

Reduction in Social Harm
By addressing incidents in targeted areas, this model contributes to measurable reductions in crashes and a broad range of crimes, positively impacting community safety and well-being.

Strengthened Stakeholder Relationships
Data-driven strategies foster stronger relationships with stakeholders and community partners, building trust and support for the agency's initiatives through consistent and effective implementation.



Implementing the data-driven strategies provides a powerful starting point for long-term, sustainable solutions in public safety. It equips agencies with a framework that encourages a **data-driven**, **evidence-based approach** to **resource deployment** and **personnel management**. This strategic model helps agencies overcome the challenges of limited resources and increasing public scrutiny, while delivering measurable improvements in crime and crash reduction. Let's dive into how SAFER can transform your agency's approach to public safety.

Long-Term Solutions
The SAFER model helps agencies focus on **data and evidence** to address **crime** and **crashes** over the long term. This approach helps law enforcement make better decisions, even with limited resources.

Key Benefits of Data-Driven Models, such as SAFER (which we will dive into later in this training series).
1.Reducing Crime and Crashes: Supports the main goal of law enforcement: to reduce **crime**, **crashes**, and **social harm**, improving the **quality of life** for communities.
2.Community Collaboration: Emphasizes working together with the community to develop effective strategies for crime and crash reduction. **Partnerships** lead to better

results.

3. **Data-Driven Policing:** Relies on **timely data** to guide decisions about where to deploy officers and resources, ensuring that spending and deployment are based on the **best available information**.

4.Using Technology: Integrates tools like **smartphones**, **body cameras**, and **license plate readers** to help officers work more efficiently and safely.

Addressing Common Challenges

•**Crime and Crashes Often Happen in the Same Area:** Your data will show that many times, crime and crashes are closely linked. Focusing on these areas can address both issues.

•**Motor Vehicles Play a Key Role in Crimes:** Criminals often use cars to commit crimes. By stopping vehicles, you can prevent crimes and gather valuable information.

- •Example: Stopping vehicles can stop potential crimes.

•**Crashes Use Up Resources:** Even minor crashes tie up officers for a long time. Data-driven strategies helps target areas to reduce crashes and free up resources for other tasks.

- •Example: Minor crashes can take up valuable officer time and resources.

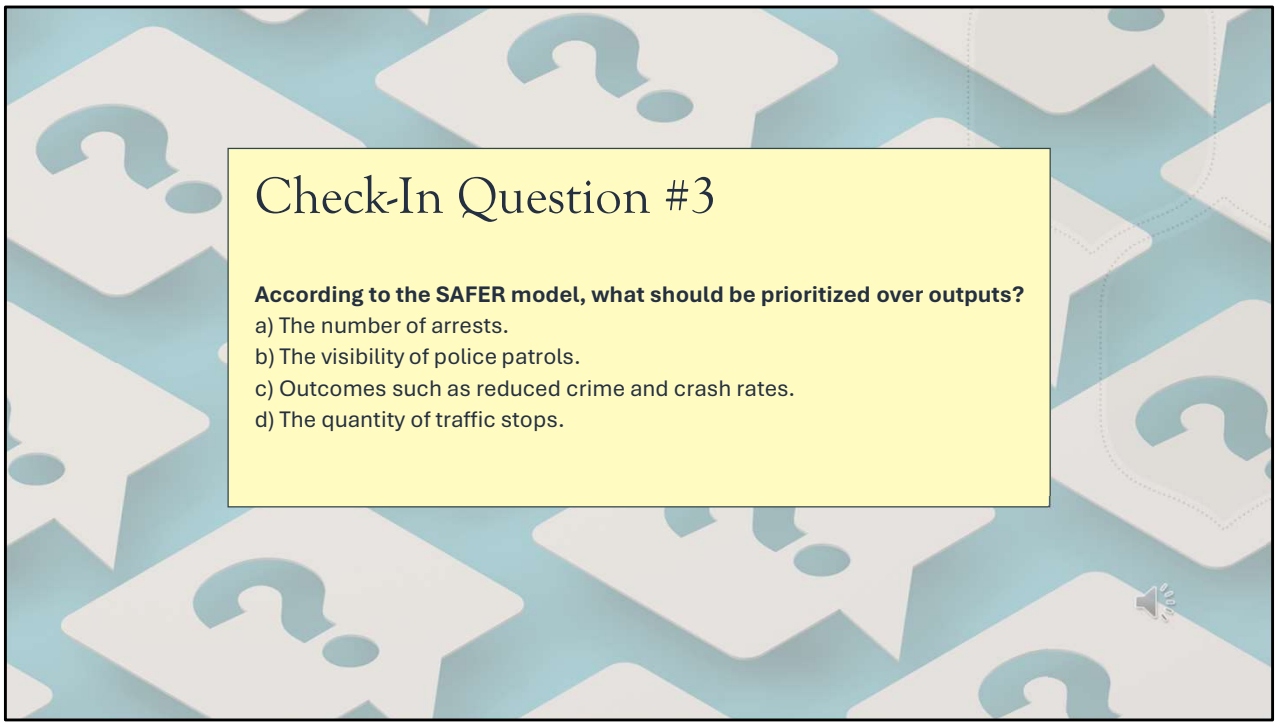
•**Vehicle Stops Provide Intelligence:** Stopping vehicles can uncover important information about suspects, locations, and criminal activity.

- •Example: Vehicle stops can link suspects to crime scenes and provide critical evidence.

•**Increased Demands with Fewer Resources:** Data-driven strategies help agencies address growing demands, like needing more **resource officers** at schools, by using available resources more efficiently.

Summary

SAFER helps your agency use **data**, **community collaboration**, and **technology** to reduce **crime**, **crashes**, and **social harm**. This model builds **trust**, improves public safety, and creates long-lasting solutions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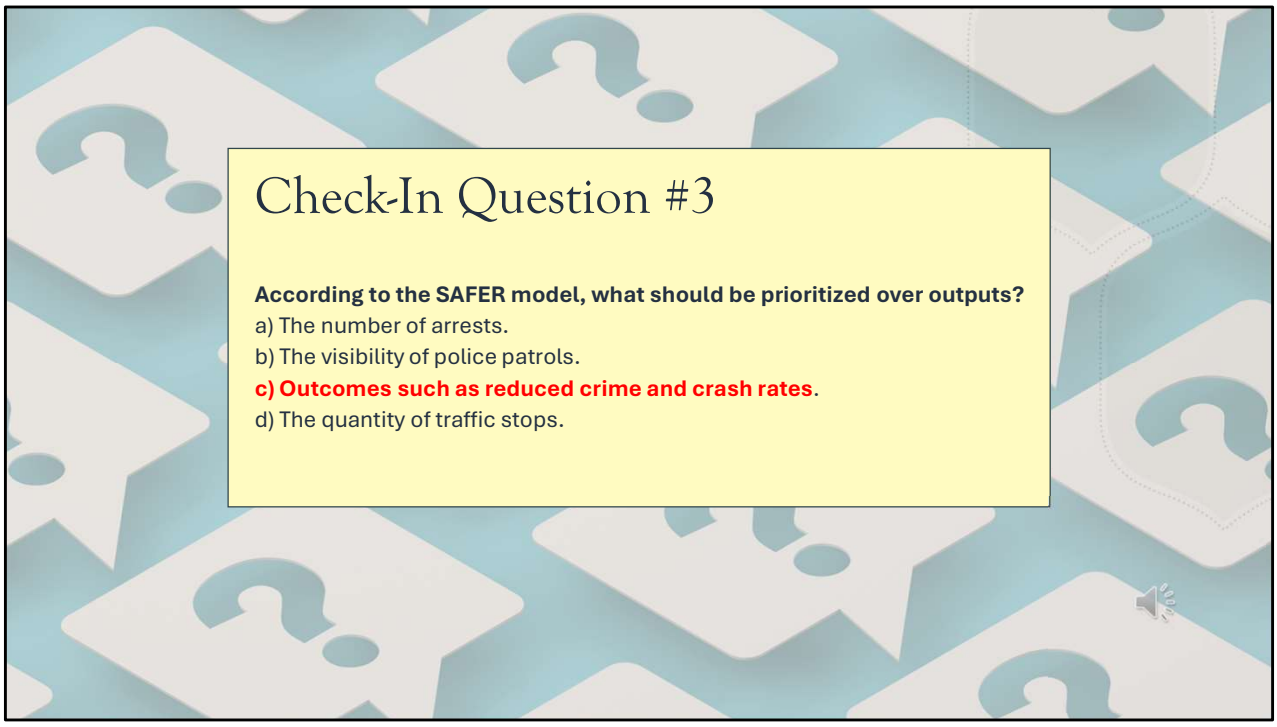
a) The number of arrests.
b) The visibility of police patrols.
c) Outcomes such as reduced crime and crash rates.
d) The quantity of traffic stops.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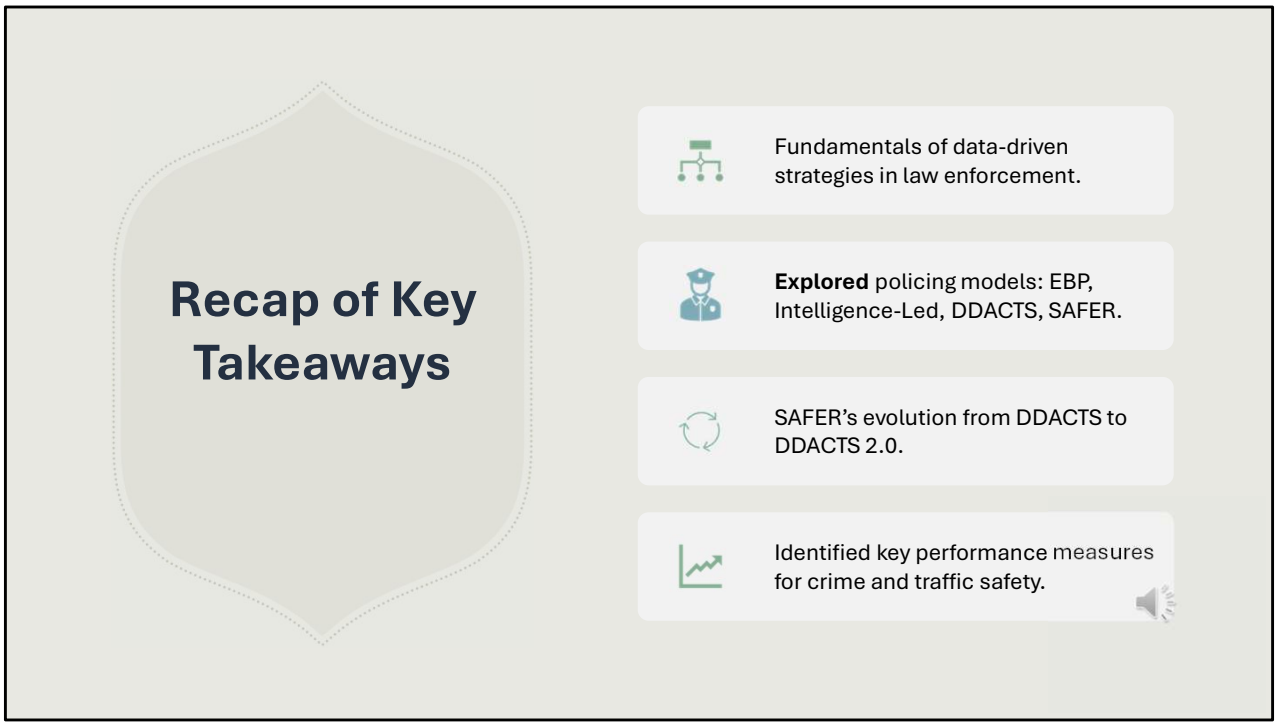

Let's take a moment to recap today's main points and the ways they can make a real impact in your daily work.

In this session we laid the groundwork for understanding data-driven strategies in law enforcement and explored how the SAFER model enhances crime and traffic safety analysis. We covered the basics of data-driven policing models—including Evidence-Based Policing, Intelligence-Led Policing, and DDACTS—and examined the evolution of the SAFER model from its roots in DDACTS. Finally, we highlighted essential performance measures that are key to effective analysis in this field. These insights form a solid foundation for implementing data-driven strategies that can significantly impact public safety outcomes.

In **Part 2**, we'll focus on creating essential queries and reports in Microsoft Access® to streamline your analysis process and automate repetitive tasks. You will learn how to build detailed reports that clearly present analytical findings, as well as how to automate these reports to improve workflow efficiency. This session will also cover how to manually input data into Access® for agencies without direct connections, empowering non-analysts to manage case loads, assist detectives, and handle traffic officer work, complaints, and crash reports. Mastering these techniques will help you optimize your agency's reporting processes, saving valuable time and improving overall productivity.

IADLEST is proud to support law enforcement agencies with a variety of resources designed to promote the implementation of data-driven operational policing. In addition to this training series, IADLEST offers in-person and virtual workshops, literature, webinars, and other valuable resources to enhance law enforcement effectiveness through data-driven strategies. We encourage you to explore these opportunities to continue your professional development and strengthen your agency's ability to make informed, impactful decisions based on reliable data.

Thank you for your participation in this session, and we look forward to seeing you in **Part 2!**


Evaluation Survey