

# Identifying Best Practices in Policing: An Overview of the Evidence-Based Policing Matrix

CPSI-2022-06

January 2022



Libnah Rodriguez  
Research Assistant, CPSI  
[Lyr1744@rit.edu](mailto:Lyr1744@rit.edu)

Irshad Altheimer  
Director, CPSI  
[ixagcj@rit.edu](mailto:ixagcj@rit.edu)

## **Introduction**

Although overall violent crime has decreased since the 1990s, homicide and aggravated assault have begun to increase rapidly since 2020 (FBI Crime Data Explorer, 2020). This national trend parallels local-level violent crime statistics. Indeed, Rochester reported 81 homicides in 2021, the highest number of victims in over two decades (Rodriguez, Altheimer, & Holland, 2022, p.2). Given this recent uptick and its implications, it is crucial, now more than ever, to begin considering new, innovative, and especially evidence-based practices that seek to reduce homicide in our city.

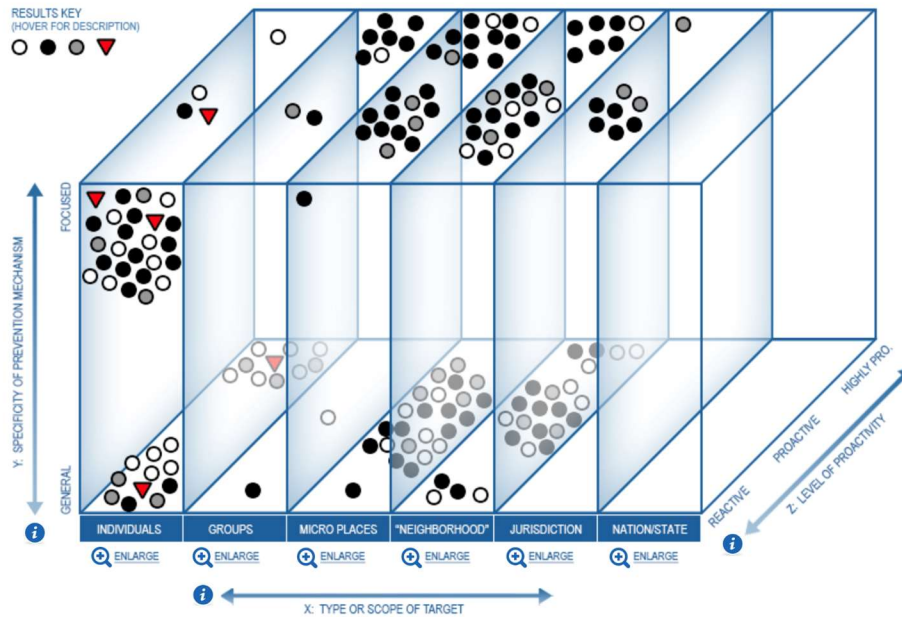
The Evidence-Based Policing Matrix, developed by the Center for Evidence-Based Crime Policy at George Mason University, is arguably one of the most comprehensive clearinghouses for “best practices” in policing. Indeed, the initial objective was to create an accessible and palpable “database” of evaluated studies for police agencies to inform their decision-making (The Center for Evidence-Based Crime Policy, 2012). While many clearinghouses claim to do this effectively, very few have been closely examined. To assess the Evidence-Based Policing Matrix, this working paper will provide a general overview of the Matrix (Part I), including a discussion of its purpose, inclusion criteria for studies, and examples of ideas for police agencies. Part I will also include a discussion of the several “realms of effectiveness,” or clusters of studies proven to be effective, and an alternative interpretation of the Matrix had it been divided by scientific rigor. The following portion (Part II) will evaluate studies in the “individuals” target area. Importantly, none of the current studies featured in the Matrix were conducted in the City of Rochester. However, it is hoped that this matrix can be used as a tool to guide effective law enforcement interventions to reduce violence locally.

**Part I**

*Purpose of the Matrix*

The Evidence-Based Policing Matrix (Figure 1) is a “research-to-practice translation tool” aimed at helping criminal justice practitioners and academics navigate policing research (Lum, 2009, p.6). Inspired by the design of Rosenberg and Knox’s (2005) *Child Well-Being Matrix*, this instrument categorizes police tactic evaluations on a three-dimensional matrix, measuring three factors on each axis: (1) the nature of the target, (2) the specificity of prevention mechanism, and (3) the level of proactivity (Lum, 2009, p.7). On the x-axis, police tactic evaluations are graphed on a six-level scale according to the nature of the target: individuals, groups, micro places, “neighborhood”, jurisdiction, and nation/state. On the y-axis, evaluations are measured by the specificity of their prevention mechanisms and graphed on a range from general to focused. On the z-axis, evaluations are charted based on three degrees of proactivity: reactive, proactive, and highly proactive. Altogether, this Matrix enables viewers to explore broader domains of policing research while still providing access to individual studies, setting it apart from other clearinghouses in the field.

Figure 1.



*Inclusion Criteria for Studies*

To be included in the Matrix, a study must meet three conditions. The first, and perhaps the most important, is methodological rigor. Namely, “a study must be either a randomized controlled experiment or quasi-experiment using matched comparison groups, or multivariate controls” to qualify as “very rigorous”, “rigorous”, or “moderately rigorous” respectively (Lum, Koper, & Telep, 2021). Interventions must also be “primarily police initiated or dominated”, regardless of whether other agencies are involved (Lum et al., 2021). The third, and possibly most evident condition, is that a study must state “crime or disorder as a measured outcome” (Lum et al., 2021). Only studies that have satisfied all three conditions can be included.

*Examples of Ideas for Police Agencies*

Insights derived from the Matrix have the potential to benefit several domains within police agencies. For instance, practitioners working at the command and agency levels (e.g., police chiefs, police commanders) can utilize the Matrix as a self-assessment and accountability

tool. To promote accountability within the agency, Lum et al. (2021) suggest deviating from traditional measures of tactical effectiveness, such as solely reporting monthly statistics, to actively mapping current strategies and tactical suggestions on the Matrix. This technique allows agency leaders to identify any potential modifications that could push existing tactics towards more effective realms. When implemented correctly, this practice can begin to “foster evidence-based leadership” (Lum et al., 2021).

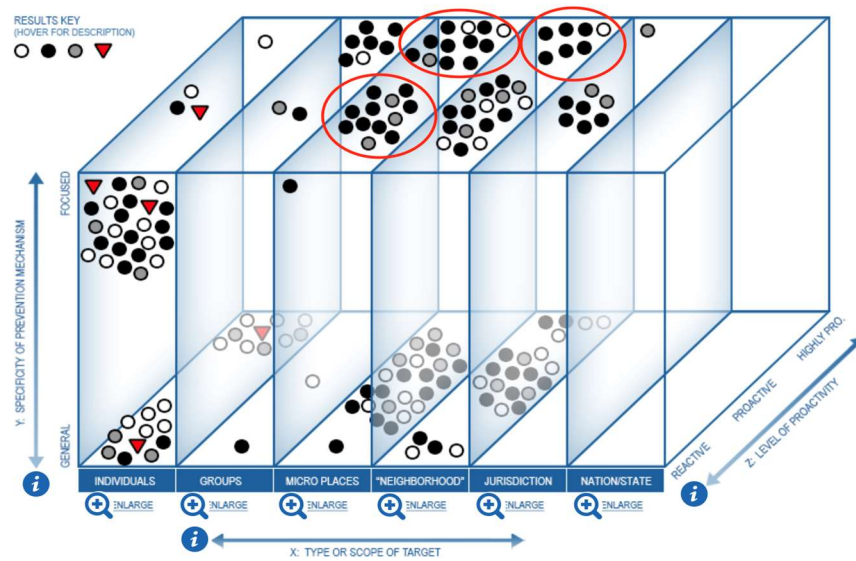
Strategies derived from the Matrix also have the potential to reorient the early training and socialization of officers. Rather than inundating officers with “anecdotes, stories, or other ad hoc experiences,” Lum et al. (2021) suggest exposing recruits to tactics corroborated by scientific research, particularly those formulated from the Matrix. By the conclusion of the program, entering officers will be able to identify effective crime-reducing tactics, “just as he or she also learns the procedures by which to make an arrest” (Lum et al., 2021). As officers begin to identify evidence-based practices, Lum et al. (2021) anticipate a significant transformation in police culture and mentality, primarily from a reactive to proactive approach to policing.

### *Realms of Effectiveness Identified by the Matrix*

Perhaps the greatest advantage to mapping all qualifying studies is the ability to identify “realms of effectiveness” in policing evaluations. As the number of qualifying studies increases, clusters of information around certain intersecting dimensions begin to materialize across the Matrix (The Center for Evidence-Based Crime Policy, 2012). These clusters, also known as “realms of effectiveness,” provide a snapshot of the overall body of literature that is otherwise absent in other clearinghouses.

The current Matrix displays several “realms of effectiveness,” primarily comprised of interventions targeting “micro places” and “neighborhoods”<sup>1</sup>. Indeed, the most promising realms are “where focused, place-based, and highly proactive dimensions intersect” (Lum et al., 2021). Interventions that target “micro places,” are highly proactive in nature, and employ focused prevention mechanisms are 75% effective. This figure also holds true for proactive and focused interventions targeting “micro places.” Other realms were proven to be more so effective (85%), namely interventions that target “neighborhoods,” are highly proactive in nature, and employ focused prevention mechanisms.

Figure 2.



*Interpretation of the Matrix if Divided by Scientific Rigor*

As noted above, very rigorous, rigorous, or moderately rigorous studies were included in the Matrix. If the Matrix’s inclusion criteria were limited to very rigorous studies, the Matrix itself would be rendered almost empty and, for all intents and purposes, useless. Indeed, the

<sup>1</sup> Those discussed in this working paper were circled in red in Figure 2.

“neighborhood” and “group-based” categories basically disappear (Lum et al., 2021). Further, the more scientifically rigorous the standard, the less likely it is to produce positive results. By including an overwhelming number of ineffective studies, the Matrix would give the impression that “nothing works.” Those studies that do “work”, or otherwise show positive effects, are disproportionately concentrated among “proactive, micro place-based” interventions. Moreover, including only very rigorous studies implies that interventions targeting individuals are markedly more harmful and ineffective than moderately rigorous studies suggest (Lum et al., 2021). Therefore, including rigorous and moderately rigorous studies, as the present Matrix does, more accurately represents the overall body of policing literature.

## Part II

While only comprising the second largest category in the Matrix, individual-targeting interventions are by far the most harmful. Indeed, this category is exclusively responsible for all five “backfiring” studies that appear in the Matrix. Moreover, though 30.6% of interventions yield positive results, 42.9% of studies are found to be ineffective, thus suggesting that individual-based interventions are primarily insufficient for reducing crime or disorder. This

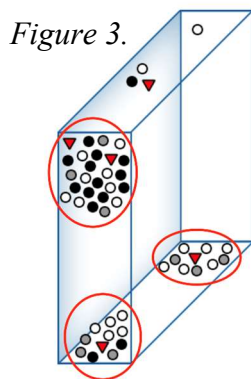


figure is further corroborated by the three realms of ineffectiveness identified within this target area (Figure 3). Given that two out of three realms intersect with the reactive dimension, we can confidently state that reactive interventions targeting individuals, whether focused or general, are largely ineffective and likely to cause harm. Though few studies cluster in the third “realm,” we can also surmise that individual-targeting interventions with general prevention mechanisms and highly proactive tactics are generally ineffective as well.

When examining “trends” within “individual-targeted” interventions, three key findings emerge. The first and perhaps most prominent finding is that the D.A.R.E program has proven to be ineffective at preventing drug-use since the early 1990’s (Clayton, Cattarello, & Johnstone, 1996; Ennett, Rosenbaum, Flewelling, Bieler, Ringwalt, & Bailey, 1994; Perry, Veblen-Mortenson, & Bosma, 2003; Ringwalt, Ennett, & Holk, 1991; Rosenbaum & Hanson, 1998). The available studies also suggest that restorative justice conferences are, for the most part, ineffective at reducing recidivism among robbery, burglary, juvenile, juvenile shoplifting, and juvenile property offenders (Shapland et al., 2008; Sherman, Strang, & Woods, 2000). Lastly, there are several key studies that indicate that arresting intimate partner violence perpetrators may reduce victimization or recidivism (Berk, Campbell, Klap, & Western, 1992; Cho & Wilke, 2010; Sherman & Berk, 1984). Though contradicting studies exist, there is considerable evidence that affirms these findings.

### **Conclusion**

Though initially challenging to comprehend, the Evidence-Based Policing Matrix provides valuable insights into the effectiveness of various police tactics. Indeed, the mapping of qualifying studies onto a three-dimensional figure enables criminal justice practitioners and academics to navigate the larger body of policing literature, unlike other clearinghouses. This in turn creates a palpable and comprehensible tool that informs their decision-making. In fulfilling its objective, the Evidence-Based Policing Matrix exposes the need for a Rochester-specific intervention catalog that would enable city leaders to evaluate and compare our interventions to empirically effective ones. We hope this working paper encourages local agency leaders and policy makers to search for new, innovative, and evidence-based practices using tools like the Evidence-Based Policing Matrix.



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