Introduction

In recent years, increased attention has been given to ways to improve homicide investigations. Research in the 1970s (Greenwood and Petersilia) seemed to demonstrate that the investigative activities of police had little impact on the solution of crimes. However, by the 1990s a growing body of literature demonstrated that police do matter. Today there is little doubt that how police organize for and conduct homicide investigations has a substantial impact on how successful they are in clearing those crimes.\(^1\)

Unfortunately, the research on homicide investigations has been limited in its usefulness to police because of limitations in the literature itself, including the way in which agencies are selected for study and the comprehensiveness of the model used to explain clearances. In almost all the existing research, agencies were selected nonrandomly and were essentially convenience samples. This makes generalization to other agencies problematic at best.

Until the study conducted by Lum and Wellford (2018), researchers have not examined these three factors. The most neglected factor in the prior research has been the nature, policies, and practices of the agencies in which homicide investigations occur. This factor is the focus of this paper.

Sampling Agencies and Data Collection

The increased attention to homicide clearances in recent years has, in many respects, been prompted by changes in the rates of homicide clearances. Figure 1 shows the rates of homicide clearance for the period 1965 to 2015. The dramatic decline in clearance rates, despite a decline in homicides since the 1990s, raised questions about why this was happening. Research by Wellford and Cronin (1999) — used by the Police Executive Police Forum (2007) to develop a guide for effective investigations — brought attention to the fact that homicide clearance rates are substantially impacted by the way in which investigations are conducted. This finding prompted us to seek to further understand the factors internal and external to police that affect clearance rates.

Unlike most averages, the average clearance rate masks the variability of clearance rates. The explanation for much of the deviation is the year-to-year variability that is minor and related to nonsystematic factors that police agencies can influence. For that reason, our work sought to select agencies by identifying long-term patterns of clearance.

At least three primary factors have been found to have a direct impact on homicide clearance rates:

1. Nature of the organization in which the investigation takes place.
2. Characteristics of the investigation and the investigators.
3. Characteristics of the homicide event, including victims and offenders.

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1 The research summarized in this paper is taken from the project “Identifying Effective Investigative Practices,” funded by the Laura and John Arnold Foundation. Cynthia Lum and Charles Wellford are the principal project investigators. Charles Wellford is solely responsible for the opinions expressed in this summary.

2 For a summary of this more recent literature, see Wellford, 2018.
To do this, we used a statistical technique that facilitates the identification of patterns within longitudinal data. The technique is called group-based modeling, sometimes referred to as trajectory modeling (Nagin, 2005). It allows for the identification of agencies that perform consistently differently over a long period of time. Figure 2 shows the results of using this technique to analyze the homicide clearance rates for 92 of the 100 largest police agencies in the United States for the period 1980 to 2015.

The results show that 20.7% of the agencies had high increasing clearance rates throughout this period, 39.5% had high decreasing rates, 18.6% had low increasing rates, and 21.1% had low decreasing rates of homicide clearance. Clearly, over long periods, large agencies differ in their ability to clear homicides. This finding allows us to select agencies for further study that vary in their patterns of homicide clearance and to study them in a way that will sustain confidence in generalizing the results to other agencies.

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3 Source: FBI's Crime in the United States

4 We are not the first to use this method on clearance rates. Worrall (forthcoming) used it on aggregate clearance rates for violent and property crimes for the period 2000-2012, with results similar to ours.

5 To do this analysis we needed clearances for at least 30 of the 35 years. Eight of the 100 agencies were missing data for too many years to be included in the analysis.
The agencies reported on in this paper were selected from the high increasing group (4) and the low decreasing group (4). Once cooperation was received from the 8 agencies, two-day site visits were scheduled with each agency to interview multiple people and groups involved in agency investigations. The goal for each agency was to interview the following individuals:

- High-ranking commanders that oversee investigations, including the deputy chief, major, or colonel in charge of the investigative bureau, and any other commanders in charge of investigations.
- Commanding officers of investigative units, specifically homicide, robbery, aggravated assault, and burglary, or the commanding officers overseeing multiple units that included these units.
- Shift commanders or supervisors of shifts/squads for units involved in direct supervision of investigators for each of the four crime types: homicide, robbery, aggravated assault, and burglary.
- Multiple investigators who specialize in homicide, robbery, aggravated assault, and burglary.
- Patrol and first-line supervisors who would understand the role and requirements of patrol for investigations of homicide, robbery, burglary, and aggravated assault.
- Individuals from investigative support services, including crime scene investigators, crime analysts, forensic scientists, and any other units that provide regular investigative support services.
In total, 155 individuals were interviewed across the eight departments. Each on-site visit was conducted by one principal investigator and at least one research assistant (usually two). In some cases, a subject matter expert was also present. This allowed detailed notes to be taken during most of our interviews. At the start of each interview, the research team would briefly describe the project, the purpose of the visit, and assure the confidentiality of the individual’s identity as well as that of their agency.

Interviews were conducted in a semistructured style using interview instruments the research team created based on prior investigative and clearance literature as well as topics of interest to the team. The team also relied on the expertise of subject matter experts who provided an extensive review of the instruments. This process resulted in instruments that delved deeply into five thematic areas, with questions specific to the rank and unit of the interviewees. These five thematic areas were used to organize findings in the next section:

**Organizational Structure:** Overall configuration of the organization and placement of detective units in the structure; division of labor; connectivity of detectives to other units; structure for information sharing with other units and with patrol; and resources given to investigations.

**Leadership and Resources:** Leadership, supervision, and accountability of investigators; performance measures for and expectations of detectives and the ways in which they are used; and deployment and prioritization of detective resources.

**Selection, Training, and Performance Review:** Selection and training of investigators and their supervisors; requirements for becoming a detective; special pay and incentives for detectives; and evaluation and review of investigators and supervisors, including whether they can be removed for poor performance.

**Case Assignment and the Investigative Process:** Investigative processes, including how cases are initially assigned to investigators and whether agencies have formal processes for investigations; activities at the initial crime scene; initial response of investigators; subsequent investigative processes such as interviews and support from other units (e.g., forensics, intelligence); use of technologies or other innovative tools in investigations; relationship with the state attorney/prosecutor’s office; and availability of victim and witness services. For homicides, questions were asked about the handling of cold cases.

**Community Interaction:** Extent of engagement with the community, including use of social media to provide information on cases; communication with community groups to strengthen cooperation and involvement in investigations; initiatives undertaken to improve community relations.

Once all of the interviews were completed, the detailed written notes from the interviews were analyzed and the findings numerically coded based on the five themes.

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6 To access the interview instrument, use the following link: https://policefoundation.box.com/s/digrwdvytj75buv979wi338hztq13dupq

7 Coding designations can be found at the following link: https://policefoundation.box.com/s/digrwdvytj75buv979wi338hztq13dupq
Results

1. Organizational Structure

All eight of the homicide units were similar in that they were all centralized investigative units. However, the organizational structure of high- and low-performing homicide units differed in significant ways.

- High-performing units were much more likely to describe their oversight structure for investigations as highly structured (all of the high performing agencies compared to two of the low).
- High-performing units reported themselves to be highly connected to other units in their agency (all high performing and none of the low) and were more likely to share information with patrol officers during the investigation (two of the high performing and none of the low).
- High and low performers did not differ in their description of the level of formality that patrol used to provide information to detectives (both used informal methods).

In sum, high-performing units were centralized, highly structured, and highly connected to other units in the agency. They had strong relationships with patrol and a greater variety of ways to share information with other investigative units.
2. Leadership and Resources

With regard to leadership and supervision of detective units, including an agency’s use of performance metrics and resource allocation, high- and low-performing agencies differed on many dimensions.

- Leadership in high-performing agencies were more likely to meet with investigative units on a regular basis and to describe those meetings as formal as opposed to informal.
- Leadership of high-performing agencies provided specific clearance goals for the unit (two of the four high performers), while in low-performing agencies there were no instances of leadership conveying specific clearance goals.
- In high-performing agencies the specific goals included clearances, amount of time cases were to be open, and quality of the investigation.
- Leadership in all high-performing agencies used workload analysis to set the number of investigators and supervisors. None of the low-performing agencies reported using workload analysis.
- Information sharing by leadership to investigators in high-performing agencies was reported to be extensive and variable in its form, while low-performing agencies reported less information sharing, and the primary vehicle for that was email.
- Two of the four high-performing agencies reported that leadership conveyed that investigations were a priority for the agency. None of the low-performing agencies reported that leadership considered investigations a priority.
- High-performing agencies reported that they were well (two) or adequately (two) resourced. None of the low-performing agencies reported that they were well resourced, three reported that they were adequately resourced, while one reported it was poorly resourced.

In general, leadership in high-performing agencies established successful investigations as a priority for the agency, provided more guidance to investigative units, and used workload analysis and articulation of specific goals to allocate resources and incentivize successful units.

3. Selection, Training, and Performance Review

All of the high-performing agencies required investigators to have experience in investigations, while none of the low-performing agencies did so. Similarly, three of the four high-performing agencies required their investigators to have specific training, while not one of the low-performing agencies had such a requirement. Lastly, in two of the four high-performing agencies investigators were required to have a specific number of years of experience in the department, but only one of the low-performing agencies required such experience.

Although differences in the process used to select investigators were not substantial between high- and low-performing agencies, differences in the amount of training and experience required of supervisors of investigators were.

- In both high- and low-performing agencies, the modal category for how investigators were selected (job announcements and formal application process) and the person who made the selection (commanders above the homicide unit supervisor) were the same.
Two of the four high-performing agencies gave investigators a special rank, and three of the four gave investigators extra pay, whereas none of the low-performing agencies provided a special rank for investigators and only one provided extra pay.

Two of the high-performing agencies required experience in supervising investigations as a prerequisite for appointment as a supervisor, while none of the low-performing agencies had any requirement for supervisory experience. Two of the high-performing agencies, compared to none of the low-performing agencies, required specific training for appointment as a supervisor. Two of the four low-performing agencies were more likely to require years of experience for appointment as a supervisor, while none of the high performers did so.

In three of the four high-performing agencies, investigators were required to attend formal training, but this was not a requirement in any of the low-performing agencies. There were no training officers in either high- or low-performing units; consequently, all of the agencies required their investigative supervisors to evaluate investigators’ successful completion of training.

Both high- and low-performing agencies supported additional training for investigators. However, only one high-performing and one low-performing agency trained their investigators in the science of solvability.

In both high- and low-performing agencies, the majority had two or more command levels between the head of the homicide unit and the chief executive of the agents.

Investigators with consistently inadequate investigations and/or low clearance rates were seldom removed in either high- or low-performing agencies.

Evaluations of detectives were similar to the evaluations used for all other personnel in the agencies in both high- and low-performing agencies.

4. Case Assignment and Investigative Process

As expected, in all agencies homicides were assigned to an investigator, and in all cases investigators and supervisors reported to the crime scene when notified. Also in all agencies, investigators were available 24/7. Investigators in both high- and low-performing agencies had take-home cars to facilitate being on-call. Overtime was available in all agencies, with overtime approval by the investigative supervisor. Only one agency (a high performer) placed a limit on the use of overtime.

All agencies used a rotational system to assign cases, and the modal category for the number of detectives assigned to a case was two. However, there were differences in the average caseload of detectives in high- versus low-performing agencies. All agencies met the conventional standard of less than six new cases per investigator per year, though high-performing agencies were on average lower than the conventional standard, with an average caseload of 2.75. Low-performing agencies averaged 4.1 new cases per investigator per year. It should be noted that a conclusion cannot be drawn on the specific role that lower caseloads play in higher clearance rates until a more detailed statistical analysis is completed in phase 3 of this project.
Once assigned, significant differences emerged in the way cases were investigated in high- and low-performing agencies.

- High-performing agencies were more likely to have detailed standard operating procedures for the investigation (four of the high performers but only two of the low), to use an investigative case management system (four of the high performers and two of the low), to use solvability factors for case assignment (two of the high performers and none of the low), to have mandatory and regular reviews of case progress (all of the high performers and two of the low), and to maintain a crime scene log (all of the high performers and two of the low). Although both the high- and low-performing agencies reported high levels of support from the forensics and crime scene units, the level of support from other units in each agency differed.
High-performing agencies reported high support from intelligence units (all), crime analysis (all), digital evidence (all), and use of a fugitive task force or warrant apprehension squad (three of four). Low-performing agencies reported no support from intelligence units, two reported crime analysis support, one reported high support for digital evidence collection, and one reported high support from fugitive or warrant squads.

Investigators in both high- and low-performing agencies usually attended autopsies, and an initial report was required and reviewed by the investigative supervisor.

All high-performing agencies reported that later stages of the investigation were handled collaboratively by members of the homicide unit. Only one low-performing agency reported the use of a collaborative investigative model.

High-performing agency investigators tended to have department-issued smartphones (three of four), tablets or laptops (three of four), digital cameras (all), and voice recorders (all). In the low-performing group, only one agency reported that investigators had smartphones, one reported they had tablets or laptops, two had digital cameras, and three reported they had voice recorders. All of the high-performing agencies reported tape recording all interviews, while only one low performer reported doing so.

All of the high- and low-performing agencies reported using double-blind identification procedures.

Half of the high- and low-performing agencies reported the existence of some type of witness protection program. All four of the high-performing agencies reported that they had a well-supported victim/witness services unit within their agency, while two of the low-performing units reported that they had victim/witness services with limited support, and one indicated they had no such programs.

None of the high- or low-performing agencies were required to have permission from their prosecuting attorney prior to making an arrest in a homicide case.

All four of the high-performing agencies reported having good relationships with their prosecuting attorney’s office, while only two of the four low-performing agencies reported having good relationships.

Two of the four high- and low-performing agencies had a cold case squad.

5. Community Interactions

In all assessed areas, high-performing agencies engaged in more varied and extensive community interactions specifically directed at improving homicide clearances.

- All high-performing agencies reported that leadership engaged with the community to assist in homicide investigations, while two of the four low performers reported this level of support.
- All high-performing agencies reported using social media to interact with the community about solving homicide cases in general, while only two of the low performers reported doing so.
- Three of the four high-performing agencies reported that leadership used community meetings to assist with homicide investigations, while two of the four low performers engaged in these efforts.
All four of the high-performing agencies described the homicide unit’s relationship with the community as good. Only two of the low-performing agencies described their relationship with the community as good, and the other two described their relationship as mixed. None of the low-performing agencies reported specific initiatives to improve investigation-community relationships, while two high-performing agencies indicated that this had been accomplished. Similarly, two of the four high-performing agencies reported specific initiatives to counter “stop-snitching” campaigns, while none of the low-performing agencies engaged in these efforts.

Three of the high-performing agencies reported using social media to interact with the community about solving specific cases, while only two of the low-performing agencies engaged in these efforts.
When agency representatives were asked to explain their homicide clearance trends, high- and low-performing agencies responded differently. In high-performing agencies, explanations focused almost exclusively on aspects of the agency and the homicide unit. These representatives discussed efforts they were currently undertaking or that had been undertaken in the past to maintain high levels of homicide clearances. Low-performing agencies explained their trends primarily in terms of factors external to the agency — most frequently, lack of witness cooperation and difficulties with prosecutors.

Both staff interviews and reviews of agency policies and practices demonstrate what prior research has also found: There is no “silver bullet” to explain homicide clearance levels. High-performing agencies were not always engaged in what might be considered best practices, but in every instance, they were performing collectively better (i.e., more consistently with research and best practices) than low-performing agencies. High-performing agencies looked within their operations to determine how they could improve, while low-performing agencies focused more on external sources of their problems — such as a lack of witness cooperation and the charging practices of their district attorneys.

In addition to the internal versus external orientation, high-performing agencies were much more likely to have:

1. Worked with the community to gain cooperation with their investigations.
2. Used a collaborative approach throughout the investigation.
3. Dedicated larger numbers of detectives relative to caseload (average of 3).
4. Allocated more technical and support services for their investigators, such as smartphones, laptops, voice recorders, intelligence, crime analysis, fugitive apprehension, video retrieval and analysis, and assistance with phone analysis.
5. Instituted more formal oversight and supervision of investigations.
6. Employed a more systematic process for the selection and training of their detectives.
7. Selected their detectives based on investigative experience and prior training.
8. Fostered better working relations with their district attorneys.
9. Emphasized documentation of their policies and a review of documents describing case progress.
10. Chosen leadership that set clear goals with periodic assessments of performance for the homicide unit and detectives.

But these differences alone have not been determined to account for variations in clearance rate. Our conclusions await further analysis of agency protocols, case characteristics, and investigative effort. However, it is clear that high- and low-performing agencies vary in some fundamental agency-level characteristics, and investigative managers would do well to consider the differences as they seek to improve their own homicide clearance rates.

Summary